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The Railways and the Making of Upland Britain: The Lifecycle of an Envirotechnical Regime

Ciaran Johnson

PhD

2022

The Railways and the Making of Upland Britain: The Lifecycle of an Envirotechnical Regime

Ciaran Johnson

A thesis submitted in partial fulfilment of the requirements of the University of Northumbria at Newcastle for the degree of Doctor of Philosophy

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and in collaboration with
the National Railway Museum, York

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Abstract

This thesis explores the industrial and post-industrial development of the Dartmoor landscape, focussing on the Princetown Railway, its associated granite industry, and the surrounding communities. Covering 1800 to the 1960s, it explores how the railway and quarry developments were shaped by social, economic and political events, and examines the wider influence of the moor itself. The research employs an envirotechnical approach, where environmental history, science and technology studies, and social history meet. Railways were keystones of envirotechnical regimes, and important agents of social, cultural and environmental change. Despite this, their history has not been subject to this framework. The story of this regime is continued after closure of the railway in 1956, when the newly created National Park actively removed traces of the railway.

Divided into four thematic chapters, the thesis begins with granite speculation on the moor, relating it to developing moral and aesthetic sensibilities and judgements, and the emerging professional and legal frameworks. The development of the railway forms the basis of the second chapter, which explores the question of who benefitted from its construction. The third chapter explores the communities created by the influx of quarry workers, and the place of the workers in shaping cultural perceptions of the moor. The final chapter looks at the evolution of attitudes towards landscapes, analysing the rationale behind the naturalising of industrial structures, and the process of removing traces of the railway.

Drawing on a wide range of sources, from contemporary journals, minutes of board meetings, professional and personal correspondence, the press and travel writing, this thesis challenges the preservationist view of Dartmoor as a site of failed industrialisation. It shows how Dartmoor's landscape is the product of a wide range of decisions and influences, which have affected both its physical appearance, and its place in politics, economics and culture.

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Having held a lifelong passion for railways, the opportunity to work at the National Railway Museum has been a great experience, for which I am truly grateful. I would like to express my particular thanks to Anthony Coulls, Dr Oli Betts, Dr Cait Scott, and Dr Thomas Spain, each of whom have helped in different ways, but often simply by giving moral support when I needed it the most. In addition, I would also like to thank Ed Bartholomew, Dr Sophie Vohra, Peter Thorpe and the staff at Search Engine. There are many others who have made my time at the NRM the most enjoyable experience.

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Finally, I would like to thank my late father, Paul Johnson, for always encouraging me to pursue my passions.

Declaration

I declare that the work contained in this thesis has not been submitted for any other award and that it is all my own work. I also confirm that this work fully acknowledges opinions, ideas and contributions from the work of others.

Any ethical clearance for the research presented in this commentary has been approved. Approval has been sought and granted through the Researcher's submission to Northumbria University's Ethics Online System on 02/05/2019.

I declare that the Word Count of this Thesis is 78,930 words

Name: Ciaran Johnson

Date: 31/12/2022

Maps

The Princetown – Plymouth area. Bartholomew Half-Inch Map, 1903.
National Library of Scotland

Detail from above, showing the Princetown area. The route of the Princetown Railway, from Yelverton to Princetown, is marked black. Bartholomew Half-Inch Map, 1903.
National Library of Scotland

Introduction

Dartmoor can often present a desolate and barren spectacle. Largely devoid of trees, its most distinctive features are the numerous granite tors which dot its undulating moorland. Granite has long shaped perceptions of Dartmoor, not only from prevailing attitudes towards this 'natural' landscape, but also through antiquarian interest in its ancient standing stones, and later from its harnessing as a commodity. While appearing to be a landscape dramatically forged by nature, it would be mistaken to assume that Dartmoor's landscape has been unchanging. It is a landscape which is neither entirely natural, nor entirely man-made, but a hybrid of the two, and, despite appearances, one which did not circumvent industrial and technological developments. Dartmoor's iconic tors, imposing outcrops of granite whose striking shapes at times give the appearance of man-made structures, contrast with the legacy of the region's quarrying industry; the cavernous excavations of abandoned workings do not immediately identify themselves as being the creation of an industrial process. A similar confusion exists lower down on the ground, where the scattered ruins of buildings disappear amongst the 'moorstone' which naturally litters the surface of the moor.

This study focuses on Princetown and its hinterlands. Located towards the centre of the moor, Princetown was founded in the late eighteenth century by Sir Thomas Tyrwhitt. Secretary to the Prince of Wales, Tyrwhitt leased a large area of land from the Duchy of Cornwall with the intention of turning it over to cultivation. Tyrwhitt's attempts to modernise Dartmoor echoed the thoughts of early nineteenth century writers like Joseph Cottle, who saw Dartmoor as having scope for agricultural or industrial 'improvement.'[1] Through his political influence, Tyrwhitt was able to ensure that the settlement was chosen as the

[1] Mathew Kelly, *Quartz and Feldspar* (London: Johnathon Cape, 2015) p. 112.

location for a prisoner of war depot during the Napoleonic wars. Opened in 1809, the depot was also subsequently used to house American prisoners. Following the peace in 1815 the prison lay empty, and the settlement at Princetown faced abandonment. Seeking to turn around the fortunes of his new town, in 1818 Tyrwhitt embarked on an ambitious scheme to create a rail link between Princetown and Plymouth, with a view to facilitating the broader reclamation of the area. At this time development of the modern railway was in its infancy. Steam traction had first been tried in 1804, while the first public railway to use steam locomotives would not occur until the opening of the Stockton & Darlington Railway in 1825. The line created by Tyrwhitt therefore represented the ultimate development of the horse-drawn tramway, an anachronism at the moment of its conception.

While Tyrwhitt's vision of widescale cultivation was not to be realised, the resulting railway, opened in 1823, proved to be the catalyst for the development of the region's granite quarrying industry. Lasting for over a century, the quarries provided stone for such notable works as Nelson's Column (1843) and the second London Bridge (1831). The use of Dartmoor granite in the construction of high-profile projects such as these is well known, yet poorly documented, whilst the extent of its use in more mundane roles, such as street kerbing, is less well established.[2] Dartmoor became the supplier for large scale construction projects, extensive street improvements, and latterly a source of memorial stone. The consequent influx of quarry workers onto the moor prompted the development of settlements around the quarry sites at Merrivale and Foggintor. These settlements had an existence quite distinct from Princetown. Not only were there workers' cottages and buildings associated with the industry, including a smithy, a powder room, dressing sheds and stables, but there was also a Wesleyan chapel, a mission hall and a school. Princetown, with its prison, became a tourist destination in its own right, but the quarry communities remain more obscure. The degree to which these sites were integrated with the wider community is

[2] Frank Booker, 'Industry,' in Crispin Gill, (ed.), *Dartmoor - A New Study* (Newton Abbot: David & Charles, 1970) p. 132.

unclear, and raises questions over how to consider their intended longevity. Where they conceived as workcamps, or were they more permanent?

The euphoria surrounding the opening of the railway soon died down, and the line's status as an engineering achievement quickly became overshadowed by developments in the north of England. Financially, too, the railway did not prove to be an overwhelming success, and by the middle of the century had become relegated to the status of an archaic relic. In the early 1880s the railway was rebuilt, under the auspices of the Great Western Railway, to become part of the modern national network. In this form it survived until 1956, when, under state ownership of British Railways, it was closed, and the line dismantled. By this time the line was no longer a 'quarrying' railway, and in this thesis the fate of the railway will be examined in the context of its changing uses, not least the transition away from its original purpose to supply Princetown and service the quarries. The later years of the railway's existence saw tourism play an increasing role in the line's traffic, while the granite industry underwent a protracted decline. This naturally raises the question of what caused this decline in the granite trade, and what forces were driving the increase in tourism? Transport was not the only area to see state intervention in the post-war era. The passing of the National Parks and Access to the Countryside Act in 1949, and the designation of Dartmoor as a National Park in 1951 saw the area become the subject of national interest.

The designation of Dartmoor as a National Park had implications for the region's industrial heritage. The dismantling of the railway was more comprehensive than was usually the case; in addition to the track being lifted, buildings were demolished, and station areas cleared. Following closure of the railway, a decision was made to maintain the trackbed as a footpath, as part of a broader amenity agenda, in which form it has continued to shape peoples' experiences of the moor. Now devoid of much of the hardware which identified it as a railway, the exact age and origin of the route is not obvious to the casual observer. Concurrent with the dismantling of the railway was the demolition of various buildings associated with the quarry sites. Today, only a few scattered ruins remain at Foggintor to

indicate where once there had been a settlement. The landscape encountered now is the result of depopulation and abandonment, but it is only partly this; it also reflects decisions made by the park authority – implemented at considerable cost – to remove 'disfigurements' and to re-make the landscape in a way which was aligned with National Park purposes. What drove the National Park Commission to be interested in this area?

Histories of Dartmoor have tended to be descriptive or topographical in nature, with Eric Hemery's *High Dartmoor* (1983) being a notable example. Such histories became particularly fashionable from the late eighteenth-century, with other earlier examples including Samuel Rowe's *A Perambulation of Dartmoor* (1848), Morris Fuller's 'The Royal Forest of Dartmoor', (1896) and William Crossing's *Guide to Dartmoor* (1912).[3] Crossing felt that to produce the best guide to Dartmoor, it was essential that the author's knowledge of the landscape should be inseparable from their historical knowledge, and he placed far greater emphasis on the impact of human interaction than had previously been the case. Broader environmental histories such as Brian Clapp's *Environmental History of Britain Since the Industrial Revolution* (1994) have noted the environmental impacts on the landscape of industrialisation, and contemporary Victorian attitudes towards these changes. James Winter's *Secure from Rash Assault: Sustaining the Victorian Environment* (1999) considered that while industrial developments impacted the environment, the technology itself often limited environmental damage, with railways aiding preservation of the landscape due to their innate restrictions to 'narrow corridors'. In this view, railways channelled long-distance transport away from the roads and onto specific trunk routes, in the process facilitating the development of industries alongside these routes rather than them dissipating across the countryside.[4]

[3] Morris Fuller, 'The Royal Forest of Dartmoor,' *London Society: A Monthly Magazine of Light and Amusing Literature for the Hours of Relaxation*, Vol. 69, No. 410 (1896) pp. 137-155.
[4] James Winter, *Secure from Rash Assault: Sustaining the Victorian Environment* (Berkeley: University of California Press, 2002) p. 104.

In recent years the concept of 'envirotechnical' history has been used to make sense of how the nation, technology and nature intersect historically. This approach contrasts with previous environmental and technological histories, which have tended to view these subjects in isolation from each other.[5] However, as Jon Agar has recently argued in *Histories of Technology, the Environment and Modern Britain* (2018), 'technologies are made from materials that have been extracted and modified from environments, while nature has, to varying extents, been engineered'.[6] A pioneering example of this approach has been Sara Pritchard's *Confluence* (2011), which has traced the history of the Rhône river in France. Pritchard explored the relationship between technological development and environmental management on the one hand, and political identities and state building on the other. Pritchard proposes that 'the term "envirotechnical" calls attention to the entangled web of nature and technology just as early work on the sociotechnical stressed the inextricable ties between society and technology'.[7] Pritchard has further defined the envirotechnical *regime* as encompassing the 'institutions, people, ideologies, technologies, and landscapes that together define, justify, build, and maintain a particular envirotechnical system… for specific ends.'[8]

Railways provide strong material for envirotechnical studies, yet it is rare for them to be approached in this manner. However, from the late eighteenth century Dartmoor became subject to modernising forces, of which the railway to Princetown was a key element. When combined as a whole, the various industries related to the line form what Tim Ingold has described as a 'taskscape'; a landscape defined through its creative activities, rather than simply as a visual entity.[9] The landscape which this line helped produce and support provides a rich source for envirotechnical treatment, and forms the basis of this thesis. In

[5] Sara Pritchard, *Confluence* (Cambridge: Harvard University Press, 2011) p. 12.
[6] John Agar, 'Technology, Environment and Modern Britain', in John Agar and Jacob Ward (eds), *Histories of Technology, the Environment and Modern Britain* (London: UCL Press, 2018) p. 1.
[7] Pritchard, *Confluence*, p. 12.
[8] Ibid. p. 23.
[9] Tim Ingold, *The Perception of the Environment* (London: Routledge, 2000) p. 154.

doing so it will demonstrate how railways helped produce modern upland landscapes, and show the manner in which they integrated marginal places into national identities. In continuing the story following closure of the line, it will be shown how the railway had a role in both industrial and post-industrial change. By considering the railway as an agent of modernity, it can be situated within well-established historiographies concerning ideas of national identity, transport systems having long been recognised as a key instrument in their creation. Eric Hobsbawm and Benedict Anderson have both highlighted railways as being a key element in this process, through their ability to mobilise disparate groups and aid communication, both in a physical sense, and through aiding mutual awareness of an imagined community.[10] Ingold compares the transition from taskscape to landscape with that of a painting; the activities surrounding the creative phase being the taskscape, with the finished result being comparable to a landscape. The landscape is comprised of a pattern of activities that have been collapsed down into an array of features.[11]

A work which has significantly shaped this thesis is Paul Readman's *Storied Ground: Landscape and the Shaping of English National Identity* (2018), which explores national identity and attitudes towards landscape and environment during the period from 1780 to 1914. Readman emphasises the historical associations which defined the way landscapes came to be viewed as expressions of national identity, and how the changing meanings attached to landscapes gradually saw them come to be viewed as a form of national property. The author also puts forward the view that when framed as national heritage, landscapes harmonized with ideas of progress and modernity, rather than being 'anti-modern, permeated by a reactionary, conservative-nostalgic mindset'.[12] Readman examines the late-nineteenth century railway controversies in the Lake District, although this is largely from the perspective of access and preservationist disputes rather than the production of

[10] Benedict Anderson*, Imagined Communities* (London: Verso, 2006) p. 115; Eric Hobsbawm, *Industry and Empire: From 1750 to the Present Day* (New York: The New Press, 1999) p. 89.
[11] Ingold, *The Perception of the Environment*, p. 198.
[12] Paul Readman, *Storied Ground* (Cambridge: Cambridge University Press, 2018) p. 15.

modern upland landscapes. Picking up where Readman chronologically ends, David Matless in *Landscape and Englishness* (1998, revised 2016), has shown how in the inter-war years the spiritual, intellectual and physical cultures of the English landscape came to be seen as a means of improving the population.[13] This period marked a significant transition in the perception of the Dartmoor landscape, moving from one which had undergone de-industrialisation, to an 'amenity landscape,' acting as a leisure source. The promotion of Dartmoor as a tourist destination had gained increasing prominence during the twentieth century, the defining moment occurring in 1951 with the designation of Dartmoor as a National Park. Matless argues that 'the power of landscape resides in it being simultaneously a site of economic, social, political and aesthetic value', with each aspect being of equal importance.[14] Focusing on the period from 1918 to the 1950s, Matless places particular emphasis on the development of the 'planner-preservationist' vision during the inter-war period. The author argues that organisations such as the Council for the Preservation of Rural England, far from being wedded to nostalgia and conservatism, were instead modernizing forces, with a fundamental ethos on planning and order to enable the maintenance of separation between town and country. Matless continues this theme in the post-war landscape of reconstruction, where the planner-preservationist movement was able to exert considerable power. As noted by Tom Greeves, the greater emphasis placed on the landscape as a natural entity led to attempts to naturalise reminders of Dartmoor's industrial past, the demolition in the 1960s of various derelict quarry buildings being a prominent example of the implementation of an amenity aesthetic.[15] This study will therefore consider the 'afterlife' of the railway and granite industry, in-line with the envirotechnical principle of technologies having complete 'life-cycles'.[16] How has the social, cultural and environmental

[13] David Matless, *Landscape and Englishness* (London: Reaktion, 2016) p. 94.
[14] Ibid. p. 28.
[15] Tom Greeves, 'Dartmoor and the Displacement of Culture: Analysis and Remedy,' *Transactions of the Devonshire Association*, 147 (2016) p. 17.
[16] Pritchard, *Confluence*, p. 13.

legacy of these railways been treated, particularly with respect to their representation in the National Parks? In what ways has this history been codified as 'heritage'?

This thesis will begin by showing the events which led to the introduction of a railway on Dartmoor, through analysis within the context of contemporary attitudes towards moorland. Historians such as Stephen Daniels and Susanne Seymour with *Landscape Design and the Idea of Improvement, 1730-1914* (1991) and Vittoria Di Palma in *Wasteland* (2014) have studied the evolution of attitudes to 'wastelands', and in particular highlighted a concept which gained increasing prominence during the eighteenth century, in which cultivation of such 'wastelands' was viewed as a means of promoting spiritual betterment. While the intended large-scale cultivation of Dartmoor did not occur, granite emerged as the central element in the movement to improve and modernise the area, the first half of the nineteenth century witnessing an explosion of quarrying activity on the moor. In examining the drivers of this demand, the initial focus will be to examine the rise of granite as a construction material, first through its use in engineering, principally marine construction, and latterly in street improvement. The focus will then turn to granite's role as a driver of aesthetics, with the mid-nineteenth century seeing the stone become one of the most desirable decorative materials. Through revealing the sources which drove the physical demand for granite, it will be shown how Dartmoor became an essential supplier to the nation, enabling the modernisation of infrastructure, and the fulfilment of Victorian ideologies. In examining the demand for the stone, broader developments will become clear, such as British foreign policy, the impact of medievalism on architectural design, and individualism, all contributing towards the demand for granite, and bringing Dartmoor to national attention. Next, focus will turn to those who were responsible for organising the extraction on Dartmoor. The pre-industrial quarrying activity on the moor will be the first focus, the early nineteenth century witnessing a clash between the local population and landowners, as the latter attempted to assert their ownership over land which previously was near-worthless, but now contained commodities of a marketable value. With the rising value of granite as a commodity, competition broke out

across Britain, and on Dartmoor itself, for the best source of the stone. Numerous companies emerged, as legal frameworks developed to try and regulate the wider explosion of speculative businesses in mid-nineteenth century Britain. Surviving company records will shed light on the individuals who invested in these companies, while contemporary advertisements reveal how Dartmoor's granite trade saw the emergence of brand names, which became fought over as companies vied with each other to be the main importer to the capital. The final part of the chapter focuses on the decline of the granite trade from the late-nineteenth century until the inter-war years. In addition to changing aesthetic tastes and the emergence of new materials which supplanted granite, developments in transnational trade would see granite become a topic in Parliament. In examining the impact of foreign competition on the moor's industry, the chapter will end by illustrating how the final years of the industry saw memorials become the chief market for the stone.

The second chapter will examine the railway itself. Previous histories of the branch, notably as H. G. Kendall's *The Plymouth and Dartmoor Railway and Its Fore-Runners* (1968), G. H. Anthony, *The Tavistock, Launceston and Princetown Railways* (1971) and Anthony Kingdom's *The Princetown Branch* (1979) have tended to focus solely on the development of the line itself, without reference to the broader cultural, social and economic agencies driving its development. By contrast, Matthew Kelly in *Quartz and Feldspar* (2015) has discussed the origins of the railway in greater depth, and its relation to Tyrwhitt's improvements schemes, but has not taken his analysis of the railway beyond the early pioneering stages. The first half of the chapter explores the events surrounding the construction of the line, and its subsequent rebuilding. Having originally been at the forefront of railway development, the line quickly became obsolete. In analysing the causes of its stagnation, attention will focus on the local business interests which held the line back from further development. The second half of the chapter considers the question of ownership. Over the course of its existence the railway to Princetown was owned by four different organisations. These four stages will be explored in turn, examining who the line existed for,

who it benefited, and the circumstances behind the changes of ownership. It will be shown how the 1880s rebuilding reflected the consolidation of GWR's hold over the railway network in Devon and Cornwall, and the implications this had for those who worked and lived alongside the line. The timing of both the railway's birth and rebirth fell outside the era of mass public interest in railways, during which they were regularly satirised in the press as monsters which gobbled up investors, being symbols of the destructive power of the joint-stock economy and the unnatural shifts in social hierarchies which were a result. Instead, the chapter will highlight the environmental concerns which had already begun to emerge at the time of the railway's rebuilding, and which will be more fully explored in the fourth part of the thesis.

The third chapter will examine the communities associated with the line. Over the course of the quarries' existence, the problem emerged of what to do with the workforce. Considered by some to be outsiders, others viewed them as the manifestation of the ancient Britons. In addition to the settlement of Princetown, located at the line's terminus, the presence of several quarrying sites near the course of the route led to the emergence of corresponding communities. The most notable of these were at Foggintor and Merrivale. These communities were distinctly separate from Princetown; however their history is comparatively poorly documented. Whille the populations of these settlements are recorded, together with the presence of significant buildings, little is otherwise known of their makeup. Who took the initiative in establishing these communities? What structures were deemed necessary for these communities to function, and what materials were used in their construction? How did the occupants feel about the permanence of these settlements? Through understanding the physical makeup of these sites, the nature of the facilities provided, and the quality of their construction, this research will determine whether these sites were intended to be temporary communities, or permanent settlements in the vein of Princetown. In doing so, it will demonstrate whether the moor's quarrying industry was expected to have a finite life.

The chapter will begin by looking at the initial steps taken to house the quarry workers within Princetown, before considering the provision of bespoke accommodation at the quarry sites, the details of the construction of the first buildings, and the restrictions placed on the inhabitants. It will be seen how the conditions experienced by those living in the quarry housing became of increasing concern as interest in the health of the working classes became a national issue. Next, in exploring wider attitudes towards the quarry workers, popular travel writing will show how the quarriers became part of a narrative for explaining Britain's imperialist success in comparison to other European nations. The question of what to do with the quarry workers' children became an increasing concern towards the latter half of the nineteenth century, and in exploring developments in this area, the hand of the state will become obvious, with the subject of education being made politically contentious by the religious dimension.

The final section of the chapter looks at the afterlife of the school buildings. As the National Park authorities began a process of landscape naturalisation in the post-war period, the fate of the school buildings provides an illustration of the conflicts that emerged, and which will be more fully explored in the final chapter. By chronicling the social history of the railway, as well as documenting the rise and decline of these communities, this research will ascertain the extent to which the railway actively shaped the communities along its length, and how it assisted in their expansion and integration.

The final chapter discusses the developments which led up to the closure of the line in 1956, and its subsequent transformation into a path. The railway closed some seven years before the publication of Richard Beeching's *The Reshaping of British Railways*, and so falls outside of the traditional narrative of 1960s rail closures. This chapter begins by outlining the political and financial reasoning behind the closure, as well as the engagement process with local inhabitants and the park authorities. Closure of the line drew attention from the various bodies associated with the National Park, with minutes and internal correspondence revealing the conflicting priorities between the Parks Commission, and the local Park

Committee. However, the decision-making processes which led to several former railway buildings being demolished had their roots in the late Victorian preservation movement. Therefore, before looking in detail at the rationale behind the site clearances, analysis will focus on the development of attitudes towards landscapes during the working life of the railway, after its 1880s rebuilding. Beginning by exploring at attitudes towards common land, it will be seen how the emergence of a landscape preservation movement on Dartmoor in the second half of the nineteenth century went hand in hand with questions over Dartmoor's rightful ownership. The rebuilding of Princetown Railway played a key role in stimulating concern over the future of the moor, due to both its physical impact as an industrial entity and its moral implications. Conversely, it will be seen how the railway later attempted to profit from the cult of rurality which emerged during the early twentieth century. In looking at the emergence of the National Parks in the post-war period, analysis will focus on the contemporary discussion over vernacular architecture on Dartmoor, and its place as part of a wider 1950s debate founded on postwar reconstruction. These events aid understanding of the decision to remove certain buildings from the landscape, the process of which, in the context of the Princetown area, forms the final part of the chapter.

Source material relating to both the construction of the railway in the 1820s, and its rebuilding in the 1870s is held by the National Archives. The minute books of the Plymouth & Dartmoor Railway Company provide much detail on the construction of the line and the early days of its operation. They present a candid view of the problems encountered in raising finance and purchasing land, as well as illustrating the lack of technical expertise which plagued this pioneering project. They also highlight the involvement of countless personalities, from the officers of the company to the lowest shareholder, and those involved in physically constructing the line. Evidence for the subsequent rebuilding of the railway by the GWR can be found in the surviving correspondence between the new Princetown Railway company, the GWR and other interested parties. For these later developments, the granular detail characteristic of the earlier Plymouth & Dartmoor minute books is not

available, but the confidential nature of the correspondence reveals the political manoeuvring needed to negotiate with landowner Massey Lopes, whose personal interests conflicted with those of the GWR. The same grouping also throws light on attempts by a local industrialist, early in the twentieth century, to stimulate trade on the railway and enable it to better serve the community.

While the historical record prominently illustrates key players such as Thomas Tyrwhitt and Massey Lopes, finding the voices of those who lived and worked around the quarries presents a greater challenge. The letter books of George Giles, land agent to the Lopes family between 1810 and 1859, provide insight into the development of the settlement at Foggintor, revealing details of the first structures to be erected. Through his work as land agent, Giles regularly interacted with the moor's local population, and his correspondence allows us glimpses of these otherwise marginalised people. The nature of Giles' work means that where individuals do appear, it was usually due to them having come into conflict with the landowner, through trespass or theft. However, it is possible to see other evidence of the impact these marginalised people had on the area. While the sources being looked at are generally from elite groups, in them can be seen responses to bottom-up pressures from the moor's inhabitants. As the quarry settlements grew, the needs of the workforce drove the development of infrastructure. A wealth of material exists relating to the creation of Foggintor Mission Hall School, with correspondence between the Mission Hall trustees, the local education authority and the government Education Department. As well as showing the conflicting political and religious interests, it also reveals a group of local elites responding to the needs of those of lower social status, while school logbooks provide further social background to some of pupils. Online census records provide a means of establishing the origin of some of the quarry workers. However a complete picture is not possible due to the way residents were recorded, many of the tenants at Foggintor and Merrivale being classed as living in Princetown.

The construction of the railway occurred shortly before the mass explosion of newspaper publication in Britain. Consequently, the available sources for the building and early operation of the line are almost exclusively from the viewpoint of the railway company. By the time of the railway's rebuilding in the 1870s this situation had changed, and the local press from this period aids our understanding of public opinion on the new line, through the reporting of local debates and correspondence in the letters page. Much anecdotal evidence is also to be found regarding local events and personalities. The popular press also provides a source of travel writing, providing impressions of the area and its inhabitants by writers visiting the area. The dissemination of architectural ideas was also aided by the spread of printed matter, and the emergence of publications such as *The Builder* allows us to see the rise of granite within the wider realm of British architectural design. Prior to the standardisation brought by the national rail network, place names were subject to local variations in spelling. There is much in evidence of this on Dartmoor, particularly in the case of Foggintor. In this thesis the original spellings have been retained in order to preserve the character of the material.

A contemporary reviewer of Crossing's *A Hundred Years on Dartmoor* summarised it as 'a story of man's struggle with nature, in which, on the whole, he got the worst of it.'[17] The view that Dartmoor's industrialisation was a story of abject failure persists over a century later. English Heritage, through Phil Newman's *The Field Archaeology of Dartmoor* (2011), promotes the view that 'all of Dartmoor's industries except china clay had one thing in common, which they shared with the agricultural improvers of the same period: they were mostly unsuccessful and they often resulted in financial ruination of the companies involved.'[18] This thesis will disprove this narrative, and show how Dartmoor's granite industry was neither a failure nor financially ruinous, but instead a story of success lasting over a century. By doing so, this thesis contests the National Park ideal, whose proponents tend to

[17] *Daily News*, 19 September 1901, p. 6.
[18] Phil Newman, *The Field Archaeology of Dartmoor* (Swindon: English Heritage, 2011) p. 182.

promote the natural qualities of the uplands, or the degree to which they have been co-produced by agriculture, rather than industry. The Princetown branch has come to be considered as an unassuming backwater of railway history, when in fact it represented a pioneering attempt in the use of a railway to integrate a frontier landscape more fully into the nation. The railway helped make this isolated and marginal landscape the concern of the state a full century before it was designated a part of Dartmoor National Park. This research will show that far from merely being a 'victim' of modernisation, Dartmoor was a crucible of pioneering development, through which it aided modernisation on a national scale. It will also show that the lifecycle of a railway extends beyond its formal existence, and its presence continues to affect our understanding of the landscape around us long after the last trains stopped running.

Chapter One

Profiting from the Ground

The Granite Industry and the Development of the Dartmoor Upland

‘Almost everywhere in Dartmoor are furze, heather and granite. The furze seems to suggest cruelty, the heather endurance, and the granite strength.’

Ernest G. Henham, *Furze the Cruel,* 1907

Standing tall over Trafalgar Square, Nelson’s Column presents one of London’s most instantly recognisable landmarks. Having occupied its position since 1843, it stands as a famous monument to a historical figure. Yet of the many visitors who gaze up to its figure and the lofty column on which it sits, few are likely to spare a thought over what the monument is made of, where it came from, or how it came to be here, in London. At nearly 170 feet tall, the monument stands as a pinnacle in more ways than one, being the most famous and instantly recognisable contribution of the Dartmoor landscape to architecture, representing the cultural zenith of a regional industry which has long since disappeared. Hewn from Foggintor quarry, the column is a product of the very bedrock which has come to geologically define Dartmoor. With its grainy structure and high quartz content, the granite of Nelson’s column is typical of that found on the middle of Dartmoor, and contrasts strongly with the hard, black basalt found along the moor’s eastern edge. These two granite strains, between them, encapsulate the material contribution of the stone to the wider world. The basalt, suited to being crushed and graded into hard-wearing roadstone, aggregate and

ballast, can be juxtaposed with the stone from the middle of the moor, which made its name through being shaped into building materials, both mundane and ornamental. The impact of Dartmoor's granite on society was, however, far greater than simply its legacy of material contributions.

The Dartmoor granite industry was founded on eighteenth-century ideas of morality, in which enclosure was viewed as the means to redeem an uncultivated, unproductive and uncivilised wasteland. Land improvement would not only be financially beneficial but enable the rural population to be improved with regard to their health, productiveness, and morals. Extracting granite was intended to be but one aspect of this movement; however once physical quarrying began, the moralising aspirations of improvement were soon cast aside in favour of political economy and self-interest.

The newly recognised building quality of granite saw the moor undergo a burst of activity during the early decades of the nineteenth century. Numerous quarries were established as an ever-increasing volume of granite was removed. The industry which subsequently unfolded, through its extraction and organising of granite, provides an insight into three key aspects of the nineteenth and early twentieth centuries; modernity, identity and regionalism. More specifically, the emergence of the modern state together with its expansion into marginal areas, the significance and changing face of identity, and the development and cultural placement of regional industries.

Through Dartmoor's quarrying industry it can be seen how landscape drove the development of modern infrastructure, how the commodification of granite enabled the advancement of branding and competition, and how this regional industry became involved in the debate over Britain's wider trade relations and free-trade movement. In the scramble to quarry granite from the moor, the land became subject to modern legislative frameworks; at Pew Tor the transition from a commons-based system of land use to one based on formal property rights raised questions over whether such rights were being confirmed or created. Once quarried, granite would itself come into conflict with the modern world it had helped

shape. The Victorian era saw science gain a new authority, becoming an integral part of the wider culture. The growing interaction between science and industry saw materials undergo critical analysis. Through empirical study, granite became revalued, its status as a premier building stone no longer secure in the face of competition. Its use in metropolitan construction also brought unforeseen problems, as atmospheric pollution caused the stone to gradually perish in the urban environment.

Granite also raised questions of identity, both on a local and national level. It highlighted tensions between modernity and tradition, becoming bound up with an emerging romanticism for a past way of life. While modernism threatened to destroy the comforts of belief, historical research transformed the popular conception of the medieval period from one of a 'Dark Age' into one which was to be aspired to. This medieval ethos was reflected in the visual design of buildings, Dartmoor granite becoming employed as one of the instruments of this movement. Its use in the Houses of Parliament, a building designed for the working of the modern state but executed in Gothic style, typified this connection between the past and the present.

After its successes in the nineteenth century, Dartmoor's granite industry suffered a protracted decline, having largely ended by the outbreak of the Second World War. The final bastion of quarrying on the moor would be at Merrivale, which was worked until 1997. Having previously shaped the national character, the closing stages of the industry saw granite's emphasis move to the forging of a strong regional identity. During the industry's inception, granite had been considered the key indigenous material by which Dartmoor could be transformed from a region of barren desolation to one integrated into modern Britain. When framed as an industrial area, Dartmoor came to be dominated by its granite quarrying, becoming identified, together with Cornwall and Aberdeen, as one of the great granite regions of Britain. Faced with this regional competition the industry attempted to forge its own identity through the physical and visual properties of its stone, harnessing the recent developments in aesthetic and scientific cultures. Subsequent competition from abroad saw

the region become a scene of political contest over the protection of industries and the position and power of workers within wider society. The decline of the industry, framed by changing aesthetics and the advancement of modern materials, boosted granite's role as a regional identifier. Whereas it had originally been symbolic of a primitive druidic age, granite now represented a more authentic material for Devon building work than the 'foreign' materials which had gained fashion during the latter half of the nineteenth century. As the 'true voice' of Devon, granite reflected wider concerns over the importance of authenticity in craftwork and the loss of traditional skills.

This chapter will begin with an examination of the driving forces, both moral and physical, behind the initial demand for granite during the first half of the nineteenth century, as well as looking at its status as a material when set against the wider trends of that era. It will then look at the development of the industry on the moor itself, the implications it had for the local pre-industrialised industry, the role of London in the development of new businesses and the emergence of modern concepts such as branding. The chapter concludes by looking at the decline of the industry, framed by the broader trade concerns of the time as well as the changing status of the material and its role in promoting ideas of tradition.

The Untapped Potential of Dartmoor

As the eighteenth century entered its final quarter, the centre of Dartmoor presented the same quiet spectacle that had been seen for countless centuries. Then a site of minimal activity, by the middle of the following century the moor had become established as one of the great granite quarrying sites of Britain. A tramway, constructed in the early 1820s to transport granite blocks down to the port of Plymouth, became one of the landmark railway engineering projects of its time, while its cargo found itself being advertised on the streets of London. What was it that had driven speculators to this otherwise barren and inaccessible area? At the beginning of the nineteenth century ownership of Dartmoor was principally split

between the Duchy of Cornwall, owner of most of the moor, and the Maristow Estate, recently assembled by Sir Manasseh Masseh Lopes. While attempts to transform the moor would be spearheaded by a Duchy official, with subsequent aid from Lopes, the key behind this focus on Dartmoor lay in the large amount of common land which was contained within.

The spur for Dartmoor's industrial development lay in contemporary attitudes towards undeveloped land. Crucial to the concept of colonial development had been the idea of nature as waste; the utilisation of colonial resources was promoted as the solution to industrial poverty, as well as a means of undermining political radicalism. This desire to transform wasted nature existed not only in the far reaches of empire, but also with Britain itself, where land improvement became a national agenda.[1] The desire to improve Britain's land was driven both by economic and ethical thinking. The interruption of trade and increased prices, brought about by the succession of conflicts during the late-eighteenth and early-nineteenth centuries, had resulted in greater emphasis being placed on self-sufficiency, with the period witnessing an explosion in agricultural production.[2] These same conflicts aided the forging of a strong sense of British national identity, which emerged in the wake of the 1707 Act of Union. Such a climate aided the drive to integrate frontier lands into the nation.[3]

A key focal point for nature as waste lay in its use as common land. Seventeenth-century writers saw common land as unproductive and uncivilised. In the words of one anonymous writer, wastelands were a source which did 'administer liberty and opportunity to villainous minds.'[4] The morality of wastelands was a recurring theme within improvement literature. In 1771 prominent agriculturalist Arthur Young declared in his *Farmers Letters to the People of England* that a 'waste acre of land is a public nuisance', while in 1794 Robert Fraser

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[1] Timothy Cooper, 'Peter Lund Simmonds and the Political Ecology of Waste Utilization in Victorian Britain', *Technology and Culture* Vol. 52, 1 (2011) p. 25.
[2] Anthony Howe, 'Britain and the World Economy', in Chris Williams (ed.), *A Companion to Nineteenth-Century Britain* (Oxford: Blackwell, 2007) p. 20.
[3] Chris Williams, 'British Identities', in Chris Williams (ed.), *A Companion to Nineteenth-Century Britain* (Oxford: Blackwell, 2007) pp. 534-537.
[4] Vittoria Di Palma, *Wasteland A History* (New Haven Yale University Press, 2014) pp. 44-45.

described ‘Dartmore’ as comprising wastes ‘which are at present a disgrace and reproach to the inhabitants of this country’.[5] Heaths and commons were seen as abodes of criminals and idlers, a view which persisted into the nineteenth century. Commons, especially, were synonymous with primitive society. A 1795 parliamentary select committee argued that common lands were ‘derived from that barbarous state of society, when men where strangers to any higher occupation than those of hunters or shepherds’.[6] J. C. Louden, in his *Encyclopaedia of Agriculture* (1835), devised a hierarchy of farming systems, in which open-field farming was classed as a ‘barbarian agriculture’, barely higher than the ‘economy of savages’, while at the other end of Louden’s scale ‘agriculture of science’ represented the highest form to be attained.[7]

The removal of commons, reclamation of wastes, and application of science to agriculture would therefore not only improve agricultural output and productivity, but also advance civilisation. Formed in 1793 as a voluntary association, the Board of Agriculture aimed to promote agricultural improvement through these methods. It produced a multitude of regional surveys, which intended to record the available resources, and examine ‘the means of promoting the improvement of the people in regard to their health, industry, and morals’.[8] It added to the wide body of improvement writing which considered enclosure, through implementing order and discipline, as vital to strengthening the fabric of rural society.[9] Additionally, renting out parcels of these low-value lands to the destitute would facilitate poor relief through employment, further encouraging social stability.[10] As a result of these factors,

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[5] Sarah Wilmot, ‘Agricultural Improvers and the Topography of South-West England’, in Mark Brayshay (ed.), *Topographical Writers in South-West England* (Exeter: University of Exeter Press, 1996) p. 114; Robert Fraser, *General View of the County of Devon: With Observations on the Means of Its Improvement* (London: C. Macrae, 1794) p. 29.
[6] Kelly, *Quartz and Feldspar*, p. 116.
[7] Wilmot, ‘Agricultural Improvers’, p. 115.
[8] John Billingsley, *General View of the Agriculture of the County of Somerset* (Bath: R. Crutwell, 1798) p. i.
[9] Jon Gregory, ‘Mapping Improvement: Reshaping Rural Landscapes in the Eighteenth Century’, *Landscapes* Vol. 6, No. 1 (2005) p. 66.
[10] Di Palma, *Wasteland*, p. 45.

during the second half of the eighteenth century between two and three million acres of wasteland were enclosed.[11]

The argument that enclosure and agricultural improvement would reap broad economic benefits was backed by wider economic thinking. The prevailing view throughout the eighteenth century was of the 'stationary state', a concept notably popularised by classical economist Adam Smith. In this view, the availability of land ultimately dictated the ability of the economy to grow. This concept was supported by John Stuart Mill and Thomas Malthus, persisting until the 1860s.[12] A significant contributor to the development of the land improvement ideology was English statistician Gregory King. Written at the end of the seventeenth century but not published until 1801, King's 'Natural and Political Observations and Conclusions upon the State and Condition of England, 1696', applied statistical analysis to the English landscape. Dividing the land into different categories, and establishing the value of each category per acre in terms of productivity, King concluded that over a quarter of England's landscape comprised 'barren lands' of heaths, moors, and mountains, contributing little if anything to the economy.[13]

By the end of the eighteenth century, Dartmoor represented a significant frontier land which remained untamed. An 1818 House of Commons' report on prisons noted that the moor comprised 130,000 acres, of which only one fifth had been enclosed.[14] Amidst the climate of improvement, a champion for enclosure of the moor emerged in the shape of Thomas Tyrwhitt. Over the course of a quarter of a century, Tyrwhitt spearheaded an improvement scheme which became increasingly bold in its ambitions. 'A short, dumpy man with a

[11] Ibid. p. 81.
[12] Richard Price, *British Society 1680-1880* (Cambridge: Cambridge University Press, 1999) p. 24.
[13] Di Palma, *Wasteland*, pp. 77-79.
[14] Sir Thomas Tyrwhitt, *Substance of a Statement Concerning the Formation of a Rail Road from the Forest of Dartmoor to the Plymouth Lime Quarries* (London: Harding, 1819) p. 24.

smooth, ruddy complexion', Tyrwhitt originally hailed from Essex.[15] Educated at Eton and Oxford, he served as a Member of Parliament between 1796 and 1812, and thereafter held the position of Gentleman Usher of the Black Rod. Tyrwhitt's introduction to Dartmoor occurred with his appointment as secretary to the Prince of Wales. While serving this role, he was granted 2,500 acres of Dartmoor land belonging to the Duchy of Cornwall.[16] Having only assumed the position of secretary in 1795, Tyrwhitt lost little time in creating his own vision of a cultivated moor, developing a small community under the name of Prince's Town (subsequently known as Princetown).[17] By the early 1800s the popular press was reporting that

Sir Thomas Tyrwhitt.
Christ Church, University of Oxford

> the Forrest of Dartmoor, under the direction of Col. Tyrwhitt, by the orders of his Royal Highness the Prince of Wales is rapidly improving, several thousand acres being already grubbed up for the purpose of planting. So that it is hoped, where bleakness and barrenness heretofore denied shelter to the bewildered traveller, cultivation and her attendant conveniencies will erect her standard. His Royal Highness has long had the business in contemplation, and is now carrying it into execution with spirit.[18]

Tyrwhitt's ambitions for the moor were boosted by events on the European continent, which he sought to harness to Princetown's advantage. Following the advent of the Napoleonic Wars, Tyrwhitt used his position in government to ensure that Princetown became the chosen site for a new prisoner of war depot, after the mass influx of French prisoners had provoked concerns over the suitability of existing prison ships. Constructed over three years

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[15] The History of Parliament: The House of Commons 1790-1820, ed. R. Thorne, 1986, available at http://www.histparl.ac.uk/volume/1790-1820/member/tyrwhitt-thomas-1762-1833, accessed 3 August 2021.
[16] Ibid.
[17] John Somers Cocks, 'Exploitation' in Crispin Gill (ed.), *Dartmoor a New Study* (Newton Abbot: David & Charles, 1970) p. 251.
[18] 'Provincial Occurrences and Improvements', *The Literary Magazine, or Monthly Epitome of British Literature*, Vol. 4, 2 (1806) p. 138.

and opened in 1809, the activity around the depot further supported the community which Tyrwhitt had been nurturing.[19] The depot, it was hoped, would provide a source of free labour for the cultivation of the moor. Ultimately the reliance of Princetown on the fortunes of the depot would result in the prison becoming the lynchpin for further development of the moor. While the prison's population had been bolstered by the War of 1812, the conclusion of both this and the Napoleonic Wars in 1815 saw the POW depot become redundant, its closure placing Tyrwhitt's Princetown development in jeopardy.[20] With the attempt to capitalise on the international situation having proven to be a doubled-edged sword, it was clear that the settlement needed a permanent local industry in order to be sustainable.

In late 1818 Tyrwhitt announced a much grander scheme of improvement, launching a public subscription in which he appealed to both financial speculators and the moralising aims of the improvers. The lynchpin which would facilitate this improvement scheme was the construction of a horse-drawn railway, from Plymouth to the POW depot at Princetown. Promoting investment in this new railway company was the principal objective of Tyrwhitt's prospectus. Tyrwhitt's new prospectus aspired that this 'tract of country, at present locked up in bareness, reduced to penury by the want of culture, and wanting population, will be rapidly enclosed, cultivated, planted, built upon, inhabited and at last rendered a most invaluable integral part of the kingdom.'[21] In this pre-steam era, sail cloth was still in great demand by the Royal Navy, and Tyrwhitt, recognising this as a market to capitalise on, saw flax as the chief form of produce to be grown on the moor. Because it was not simply a consumable item, but one which required additional processing, flax provided a means of 'busy and permanent employment' for the unemployed, consequently helping to 'relieve the pressure of poor rates in every surrounding parish.' In addition to growing flax, Tyrwhitt also considered cabbages, rape, turnips and in particular 'that inestimable root, the *potatoe*,' as being ideal crops to be cultivated on the moor, the proximity of Plymouth and other surrounding towns

[19] Kelly, *Quartz and Feldspar*, pp. 113-115.
[20] Ibid. p. 152.
[21] Ibid. p. 154; Tyrwhitt, *Substance of a Statement,* p. 18.

providing a large market.[22] Tyrwhitt's scheme was aided by the spiralling cost of poor relief, a legacy of the agricultural depression and high unemployment which had followed the end of the Napoleonic Wars. Tyrwhitt sought to come to society aid by 'parcelling out Dartmoor into *small farms* of thirty of forty acres, on absolute improvable leases of ninety-nine years'.[23] In contrast to the workhouse, with its 'incongruous mixture… of the old and young, the profligate and virtuous, the lazy and the active, without a single proper object to engage their attention', Tyrwhitt's Dartmoor scheme would be carefully tailored to the different 'classes' of unemployed, providing more fulfilling work with a legacy of transferable skills.

Turning the moor over to agriculture represented only one element of Tyrwhitt's scheme; by extracting the land's existing commodities, the dormant value already held within would also be realised. Granite, the stone which had long defined perceptions of the moor, was expected to become a staple industry of the area. According to Tyrwhitt, here was a real opportunity, for 'no company, hitherto instituted, could undertake to furnish it to the public in more abundance, of any size, or of a superior goodness'.[24] Through this ambitious scheme of farming and extraction, Tyrwhitt emulated the improvers in ascribing an agency to the landscape, which framed the moor as a morally dark region in need of enlightenment. The granite to be extracted would, however, subsequently take on an agency of itself, with political questions, economic debates and social ideals all becoming interwoven with the exploitation of Dartmoor's landscape, as individuals sought to extract the stone from the moor.

The new railway would be eight years in the making and endure for well over a century, the full story of which will be explored in Chapter Two. However, despite the railway's longevity, the aspirations of Tyrwhitt and the improvers would remain largely unfulfilled. Enthusiasm for improvement initially remained high, the popular press reporting in 1838 that 'in the wastes

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[22] Tyrwhitt, *Substance of a Statement,* p. 21.
[23] Ibid. p. 18.
[24] Ibid. p. 15.

surrounding the Moor barrenness is gradually disappearing, and softening into verdure and fertility'.[25] The rush to turn Dartmoor's dormant assets into profit resulted in considerable energies being invested. A widespread fixation among improvers was the economic potential held within peat bogs, Ireland becoming a significant focus of attention.[26] The right to take Dartmoor's peat had been granted by Henry III, and for centuries had been extracted by local people, both for personal use and tin smelting.[27] With the optimism of the improvement movement in abundance, a more industrial exploitation was attempted. In 1820 a report expounded that 'amongst other benefits which promise to attend the contemplated improvements on Dartmoor, is a recent discovery, that its peat may be converted into gas, which produces light not to be excelled in brilliancy, is perfectly free from disagreeable smells, and apparently not at all dangerous in its use. The peat is of a black colour, close in texture, and inexhaustible in quantity.'[28] The scheme quickly disappeared, only to re-emerge in the 1840s, when a peat distillation works was established in the dormant prisoner of war depot at Princetown.[29] The venture was, however, short lived. By this stage Dartmoor had gained a reputation as an inherently unprofitable land, incapable of redemption. In 1848 Edward Moore of the Plymouth Institute, lamented that 'the efforts of Sir Thomas Tyrwhitt, at Tor Royal, though at first successful have not been followed out with equal energy'.[30] The failure of the peat distillery only served to reinforce negative perceptions of Dartmoor. In 1849, in response to recent announcements concerning attempts at converting Irish peat into candles and other valuable commodities, *The Builder* cautioned that '£20,000 were long since *sunk* in Dartmoor bogs, in just such extractive efforts, but they have certainly not yet sprung up and fructified to perennial profit.'[31] The sinking of capital into the moor without trace became a common metaphor.

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[25] 'Dartmoor, Devonshire', *Saturday Magazine*, 29 September 1838, pp. 115-116.
[26] Cooper, 'Peter Lund Simmonds', p. 44.
[27] Booker, 'Industry', p. 129.
[28] 'Gas from Dartmoor Peat', *The Kaleidoscope*, 23 May 1820, p. 179.
[29] Booker, 'Industry', p. 130.
[30] As quoted in Samuel Rowe, *A Perambulation of Dartmoor* (London: Hamilton, Adams & Co., 1848) p. 212.
[31] *The Builder*, 4 August 1849, p. 370.

The industrial initiatives on the moor became a byword for failure, a view which has persisted to the modern day. And yet, as this research will show, it was also the site of a thriving industry. There is a tendency to be dismissive of these industrial initiatives, but this should not go unquestioned. Business failures are common occurrences regardless of location, so it is questionable whether Dartmoor speculators were particularly unlucky or misguided. The nature of Dartmoor's environment is such that failures leave behind visible traces, whereas in urban areas they are much more likely to be built over. The emphasis on failure tends to come from those who are invested in this narrative. As the final chapter will show, from the late-nineteenth century onwards, an emerging preservationist movement held a strong desire to dissociate the moor from industrial activity. Tyrwhitt's railway enabled the development of a thriving granite industry. This industry, the most successful of those on Dartmoor, was one of the moor's oldest, and remains the most visible on the landscape today. Although developments on the moor had been spearheaded by attempts at integrating this seemingly non-productive landscape into the rest of the productive nation, the granite industry which emerged and then dominated these efforts was influenced by its own set of circumstances and responded in various different ways. The railway, which had been conceived as serving a dual function, by providing the resources to enable agricultural improvement and facilitating the extraction of resources already present within the land, would soon become dominated by the granite industry, financial miscalculations during building work having led to the line's contractor gaining a controlling stake, and subsequently using it to aid their own construction business. As a result, the granite quarries that were dotted around the middle of the moor became the line's chief beneficiaries. It is the history of these quarries and the industry they supported which will now be explored.

Docks & Drains – Granite Engineering

The doctrine of improvement, in bringing attention to Dartmoor's wastelands, set in motion the creation of an industrialised quarry industry. As will be explored later, the moor had a long history of small-scale quarrying for local use. In 1823 however, the London firm of Johnson and Brice opened two large quarries, at Swell Tor and Foggintor, which dramatically altered the shape of the area's industry. Lying half a mile from one another, industrial quarrying activity would continue in the area for over a century, during which time a community would be established at Foggintor. Large-scale quarrying in this remote area became practical due to the creation of the Plymouth & Dartmoor Railway, which adjoined both sites.[32] While the improvement movement had spurred the creation of the railway, it would fall to other forces to drive the granite industry. The demand for granite was influenced by wide-ranging factors. From a material perspective, it was the strength of Dartmoor granite which enabled it to gain a foothold against other equivalent materials. Granite had gained an early champion in John Smeaton, who used it in the construction of the celebrated Eddystone Lighthouse of 1759. Then at the start of his career, by the time of his death in 1792, Smeaton had become Britain's preeminent civil engineer.[33] Smeaton's use of granite helped legitimatise the material at a time when the professional building trade was in its infancy. The emergence of an industrial granite industry on Dartmoor occurred in parallel with attempts at classifying Britain's geological makeup, the first national geological survey being undertaken in 1815. In 1835, in preparation for the rebuilding of the Houses of Parliament, the Geological Survey of Great Britain was established, one of the organisation's first tasks being to carry out a survey of Britain's main building stone quarries. This stimulated market interest, particularly within London, for a wider variety of stone. A more

[32] Peter Stanier, *South West Granite* (St. Austell: Cornish Hillside Publications, 1999) p. 66.
[33] Peter Cross-Rudkin, *John Rennie: 'Engineer of many splendid and useful works'* (London: Railway & Canal Historical Society, 2022) p. 39.

comprehensive national survey was undertaken by the GSGB in 1860, by which point there were upwards of 3000 stone quarries within the British Isles.[34]

In the early 1840s, the grey and blue granites of Aberdeenshire had already ‘long been known and highly appreciated’ in various public works, and were at the time being ‘used extensively for paving the public streets.’[35] One of the first large granite bridges to be constructed was located in Aberdeen itself; the Union Bridge of 1805 possessed a record-breaking span of 130 feet.[36] The use of granite from this region had been a particular feature of the work of John Rennie the Elder, a Scottish civil engineer who was responsible for designing a large number of bridges, canals and docks. Together with his two sons, John Rennie the Younger and George, the Rennies were one of the main proponents of granite during the early nineteenth century, and their work did much to bring it into public favour and more general use.[37] In 1843 *The Builder* related how during the construction of Waterloo Bridge between 1810-17, supply problems with the Aberdeenshire quarries had resulted in the architect, John Rennie, being forced to look further afield, ultimately settling on a supply from Cornwall. This break with the Rennies’s traditional source evidently led to questions over the most suitable material. The construction of London Bridge during 1825-31, a work of John Rennie’s sons, was preceded by a survey conducted by the Royal Society to establish the most suitable building stone, from which it was determined that the granites from Aberdeenshire and the Haytor quarry on Dartmoor had the best properties. The difficulty in obtaining stones of large dimensions had been a principal factor in the decision to move away from the traditional Aberdeenshire granite during the construction of the bridge, and was aided by the recent opening of the quarry at Foggintor, which provided a source for ‘obtaining blocks of almost any dimension, within a very limited time after order, and for a moderate price.’[38] Accordingly, the façade of the east side of the bridge was completed in

[34] *The Builder*, 1 December 1860, p. 761.
[35] ‘Building Materials – Granite’, *The Builder*, 11 November 1843, pp. 477-8.
[36] *Stone Trades Journal*, February 1904, p. 174.
[37] *Granite, Marble & Bronze Magazine*, Vol. 15, (1905) p. 32.
[38] *The Builder*, 11 November 1843, p. 478.

Aberdeenshire granite, and that of the west in Dartmoor. The use of Dartmoor granite in the construction of this high-profile bridge, both physically and through its considered selection by the Royal Society, helped boost its public profile.[39] The construction of these bridges had been induced by the mounting congestion which London faced as its population expanded. The city's continuing expansion throughout the century meant that even these works would become overwhelmed. In 1904, to accommodate extra traffic, London Bridge was widened by thirteen feet. While stone from Dartmoor would again be selected, it would only be approved after being subjected to a rigorous assessment. The Victorian fascination with statistics and properties was reflected in all aspects of the rebuilding, from the very rationale behind the work, with pedestrian numbers having witnessed 'in 1901, an increase of 4,113, or nearly 34 per cent. upon the number in 1879, and about 63 per cent. upon the number in 1869,' to the testing of the granite samples which 'gave coefficients of resistance of 2,059 lbs. and 2,206 lbs. per square inch.'[40]

While this early monument and bridge work provided Dartmoor's granite with a high-profile setting, it was through the sphere of marine construction that the moor's quarrying industry was able to become firmly established. Plymouth provided the quarries with a large local demand for marine stone; however the forces driving this demand were neither local nor regional. Extraction on the moor was driven by the situation in continental Europe, the Napoleonic wars spurring development of Britain's naval facilities. During 1812-14 a major breakwater was constructed at Plymouth, a key location for safe harbourage of the Royal Navy's Channel Fleet. It was through this project that John Rennie, in his capacity as breakwater architect, most likely became introduced to Dartmoor granite. Further development of the breakwater over the following years provided a steady stream of work for the moor's fledgling industry. During the two-year period from November 1825 to December

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[39] Ibid; *The Civil Engineer and Architect's Journal,* Vol. 4 (1841) p. 323.
[40] William Cole, 'The Widening of London Bridge', *Minutes of the Proceedings of the Institution of Civil Engineers*, Vol. 161 (1905) pp. 291, 305.

1827, 105,930 cubic feet of granite was supplied to the breakwater by Johnson & Brice from their quarry at Foggintor.[41] Following on from this burst of military activity, civilian requirements would ensure that Britain's marine infrastructure continued to be developed. As the industrial revolution took hold, not only did an increase in tradeable commodities occur, but through the introduction of steam power and iron hull construction, the size of merchant and military vessels also grew. Consequently, there was a rise in the number of commercial docks being constructed, and the expansion of existing facilities. The extent to which naval vessels had increased in size can be gauged from the rebuilding of Devonport No.3 Dock in the late 1870s, which resulted in the creation of a dock four times the area of the original. This work alone cost £200,000, and used 20,000 tons of Dartmoor granite, the contract being undertaken by Pethick Bros. of Plymouth.[42] Prior to this, developments at the Plymouth breakwater during the 1840s had provided a steady stream of work for Foggintor. According to Samuel Rowe writing in 1848, between Haytor and Foggintor quarries, 'two hundred tons are now sent every fortnight to the new docks at Keyham Point.'[43] *The Civil Engineer and Architect's Journal* noted how the large size of blocks produced by Foggintor made them ideal for use in dock construction.[44]

As the quality of Dartmoor's granite became better known, so it was deployed further afield. Its use was driven by government foreign policy. The period from 1830 to 1865 saw policy dominated by Lord Palmerston, who served as Foreign Secretary for an extended period before becoming Prime Minister. Throughout the 1840s and 1850s, a constant aspect of defence planning was the fear of a French invasion. Speaking at a Commons debate in 1860, Palmerston recounted that 'the same difficulties which interposed in 1804-5 to prevent a large army drawn up on the opposite coast of the Channel from crossing over to this country, continued to exist, and therefore successive Governments were justified in

[41] The Box, Plymouth (hereafter 'TBP'): 648/22, Plymouth Breakwater Granite Account, 1828.
[42] *Merthyr Telegraph*, 10 November 1876, p. 4.
[43] Rowe, *Perambulation*, p. 207.
[44] *CE & A Journal,* p. 322.

abstaining from any great effort for the purpose of artificial protection of our dockyards.'[45] By the time of his speech however, a new threat had emerged. Technological developments had facilitated the construction of large steamships, driving the demand for larger docks on both sides of the Channel. The late 1840s saw the construction of a new basin at Portsmouth Dockyard, capable of accommodating the larger vessels then entering service. The 'Steam Basin', as it was then known, was the largest in the world, and developed in response to the recent developments at Cherbourg, which had been transformed into a major military port.[46] The work at Portsmouth provided a steady stream of business for Pew Tor quarry, bulk shipments being sent out in monthly intervals, for which the quarry generally saw a return in the region of £100. The granite was purchased by Peter Rolt, contractor for the work, who had previously been responsible for work at Woolwich Dockyard, and who would become a recognised government contractor.[47] The rebuilding of Woolwich graving dock had been undertaken by the contractors Grissell & Peto, under the direction of the civil engineering firm of Walker & Burges, and had used Foggintor stone in its construction.[48]

The development of larger ships also led to fears of a 'steam bridge' being created across the English Channel. In this scenario, scores of French troops would be quickly transported over the water on modern steamships. This change in technological circumstance and the growing naval power of France were used to prompt the instigation in 1860 of The Royal Commission on the Defence of the United Kingdom, a committee established to assess the capability of Britain to defend itself. It concluded that Britain's coastal defences would be inadequate if the country came under attack while its navy was deployed elsewhere.[49] The extent to which France constituted a serious threat has been subject to significant historical debate. David Brown argues that the principal concern of the British government was the

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[45] Hansard HC Deb (23 July 1860) Vol. 160 col. 18.

[46] Andrew Saint and Peter Guillery, *Survey of London: Woolwich: Volume 48* (London: Yale University Press, 2012) p. 110.

[47] TBP: 3270/G105/1/3, Pew Tor Invoice Book, 1847; *The Builder*, 17 April 1847, p. 185.

[48] *CE & A Journal*, p. 323.

[49] David Brown, 'Palmerston and Anglo – French Relations, 1846 – 1865', *Diplomacy & Statecraft,* Vol. 17, 4, (2006) pp. 681-2.

maintenance of the balance of power in Europe in order to protect its trade from disruption, and much British diplomacy aimed at a further expansion of trade. In 1861 Sir John Trelawny, MP for Tavistock, suggested that under Palmerston, the government was 'mainly sustained by their foreign policy'. In Trelawny's view, threats of war and general antagonism were used to further bolster Palmerston's position as the defender of British liberalism.[50] Nevertheless, based on the recommendations of the commission, in 1860 Palmerston succeeded in pushing through the Fortifications (Provisions for Expenses) Act, an elaborate defence building programme initially estimated to cost £12,000,000, with the intention of constructing a large number of new fortifications around the British coastline.[51] Although later reduced to £9,000,000, it still remained the largest defence expenditure yet undertaken by a British government, and the programme of works that followed would take over 20 years to complete. Despite these works having the potential to give the granite industry a major boost, the increasing power of modern artillery meant that by this point the stone was falling out of favour for fortifications, its abilities to resist shellfire no longer guaranteed. In 1861, during the construction of fortifications at Portland, the *Dorset County Chronicle* reported that 'the authorities are wavering between the comparative benefits of granite walls of immense thickness, granite of less thickness faced with four-inch plates of iron, or doing away with granite altogether and building the front entirely of iron plates *fifteen inches thick*.'[52] Experiments undertaken four years later showed that granite was liable to splinter into lethal fragments when struck by shellfire, a trait not shared by other stones such as Portland Roach and Kentish Ragstone.[53]

The 1860s proved to be a fallow period for Dartmoor's granite industry. As Chapter Three illustrates, during this decade the quarry communities saw a substantial decrease in population. However, the quarries never became entirely defunct. The resilience of the

[50] Ibid. p. 687.
[51] Stephen King-Hall, 'A Defence Debate Ninety Years Ago', *Parliamentary Affairs*, Vol. 5, 2, (1951) p. 299.
[52] *Dorset County Chronicle,* 26 September 1861, p. 165.
[53] Stanier, *South West Granite*, p. 129.

industry was rooted in its ability to serve different needs. While dock and fort construction provided a high-profile setting for the stone's engineering qualities, these qualities were not limited to marine applications. The quarry owners were able to capitalise on the mid-Victorian preoccupation with health and sanitation. This is subject to a number of histories, notably Anthony Wohl's *Endangered Lives: Public Health in Victorian Britain* (1983). Throughout the period of the 1840s to the 1880s, there was a general belief among public health reformers that the living conditions of the poor could be improved by eliminating epidemic disease, with the consequent improvement in health enabling them to increase their earnings and afford better accommodation. As a result, drainage and water supply were areas which saw particular focus.[54] Demand for stone arose not only from government needs, but also from a 'new "aristocracy" of wealthy industrialists', as well as from newly established town corporations.[55] Although it did not encompass London, the Municipal Corporations Act of 1835 introduced a local government system which was more able to adapt to change than had previously been the case. By introducing a system whereby councillors were elected by ratepayers, those who wished to regenerate the economy of the area were given a far more effective means of influence.[56] London, however, provided the main focal point for the export of granite in a 'civilian' role. The medieval street layout of the city, combined with its rising commercial importance, resulted in increasing prominence being placed on street improvements.[57] During the 1840s there was growing public concern over the state of working-class housing; it was during this period the term 'slum' was first coined. The Select Committee on Metropolis Improvement had in 1840 determined that opening up slum areas through the construction of new streets would bring the occupants

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[54] Anthony Wohl, 'Unfit for Human Habitation', in H. Dyos and M. Wolff (eds.), *The Victorian City: Images and Realities* (London: Routledge, 1973) p. 611; Enid Gauldie, *Cruel Habitations: A History of Working-Class Housing 1780–1918* (London: Allen & Unwin, 1974) p. 145; John Burnett, *A Social History of Housing 1815-1970* (London: David & Charles, 1978) p. 155.
[55] Graham Lott, 'The Development of the Victorian Stone Industry', in Peter Doyle, Terry Hughes and Ian Thomas (eds.), England's Heritage in Stone: Proceedings of a Conference: Tempest Anderson Hall, York, 15-17 March 2005 (Folkstone: English Stone Forum, 2005) p. 51.
[56] Edwin Jaggard, 'Small Town Politics in Mid-Victorian Britain', *History*, Vol. 89, 1, (2004), pp. 15-16.
[57] Donald Olsen, *The Growth of Victorian London* (Harmondsworth: Penguin, 1979) p. 303.

under the influence of their 'better educated neighbours.'[58] Towards the end of the century, the *Building News* could report that the visitor to London in 1889 would find a 'wide "oasis" of paving stones and roadways' compared to the situation that had existed twenty years previously.[59] In fact during 1849, correspondence between John Hitchins of London, and John White of Tavistock – joint lessee of Pew Tor quarry – concerning the supply of granite blocks, mentioned the 'very bad' level of cholera in London.[60] During this period, the ability to supply channelling and paving appears to have been the quarry companies' main selling point when advertising in the architectural press.

Johnson & Brice had already built up a considerable portfolio of paving contracts. From 1793, it was contracted to supply the Westminster Commission of Sewers, and between 1798 and 1816 the company supplied the Chelsea Water Company.[61] The firm benefitted from the passage of the numerous Improvement Acts from the second half of the eighteenth century, which often included the provision of street paving.[62] More locally, during the 1820s and 1830s much work was undertaken to improve the paving around Plymouth. Responsibility for street improvements rested with the 'Commissioners for Paving, Lighting, Cleansing, Watching and Improving the Town and Borough of Plymouth', established in 1825, which regularly issued tenders for localised works. For example, in June 1828 contractors were invited to tender for the 'taking up and relaying the whole of the pavements' in six specific streets, and for 'keeping the same in good and proper repair for the term of Seven Years.'[63] Although these contracts did not stipulate the source of the granite to be used, their requirement for 'Fine grained blue, white or grey granite' gave preference to

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[58] H. Dyos, 'The Slums of Victorian London', *Victorian Studies* Vol. 11 No. 1 (1967) pp. 8-9; Donald Olsen, 'Victorian London: Specialization, Segregation, and Privacy,' *Victorian Studies* Vol. 17, No. 3 (1974) p. 276.
[59] Olsen, *The Growth*, p. 307.
[60] TBP: Collection 3270, Correspondence from John Hitchins to John White, 16 September 1849.
[61] Linda Clarke, *Building Capitalism: Historical Change and the Labour Process in the Production of Built Environment*, (Abingdon: Routledge, 2011) p. 201.
[62] E. L. Jones and M. E. Falkus, 'Urban Improvement and the English Economy in the Seventeenth and Eighteenth Centuries' in Peter Borsay (ed.), *The Eighteenth-Century Town: A Reader in English Urban History 1688–1820* (Abingdon: Routledge, 2015) p. 135.
[63] TBP: Collection 3270, Notice to Paviours Inviting Tenders, 23 June 1828.

stone from Dartmoor, and was likely based on familiarity of the town's existing stonework. Even mundane items such as paving slabs were subject to exacting specifications. An 1833 contract stipulated six separate forms of paving slab or kerbing. 'Granite Underfoot – No.1' required 'each stone to contain not less than 4 + half square feet – to be close picked, + wrought perfectly true on the face with edges worked square, not less than 2 ½ inches thick, properly tooled, + to be backed off to 5 inches.'[64] This influx of work came at an ideal time for Johnson. The opening of the Plymouth and Dartmoor Railway at the beginning of the decade providing direct access to their quarries at Foggintor. Despite their advantageous position in the Plymouth area, Johnson did not always enjoy a monopoly on this work. In 1833, they lost out on a large contract to James Cole.[65]

Demand for granite paving was not as secure as might be expected. Samuel Rowe noted as early as the late 1840s that 'much granite is also employed in the streets of Plymouth, for curbing, to which it is well adapted; but for street paving it is far inferior to the tough greenstones, from its readiness to disintegrate by friction.'[66] As Richard Nicholls Worth argued, by the mid-1870s granite was only occasionally used for flagging after its expense proved a barrier to more general adoption. However, granite had recently come into favour for use in kerbing, particularly for those footpaths which were unflagged, due to the large width of the stones employed providing a walkway within themselves.[67] During the late 1890s and early 1900s, there was a relatively short-lived upswing in the demand for granite setts as the widespread introduction of tramway networks throughout the nation necessitated extensive road works.[68]

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[64] TBP: 1609/1799, Plymouth Commissioners for Paving, Lighting and Watching: Contract for Supply of Granite, 8 January 1833.
[65] TBP: 1609/1802, The Plymouth Commissioners for Paving to James Cole, April 1833.
[66] Rowe, *Perambulation*, p. 208.
[67] Richard Nicholls Worth, 'The Economic Geology of Devon', *Reports and Transactions of the Devonshire Association,* Vol. 7 (1875) p. 220.
[68] T. Donelly, 'Structure, Technology and Demand in the Aberdeen Granite Quarrying Industry, 1880-1914', *Construction History* Vol. 1 (1985) p. 46.

Decoration & Detail

While granite was initially valued for its structural strength, the stone was also suited to ornamentation. In 1843, *The Builder* reflected on the polished, decorative use to which granite had been put by ancient civilizations, together with its more recent decorative use in Scandinavia. It noted that despite the preponderance of the same material in Britain, it was 'surprising how long we have remained without any attempt to apply them to the purposes of ornamental art.' These observations were made at a time when the stone was gaining new status as an ornamental material. The same periodical noted that recent work by the Aberdeen architects McDonald & Leslie in applying 'exquisite' finishes to the granite in their buildings had 'shew[n] it to be well suited for the abodes of rank and opulence.'[69] A few years later, the Great Exhibition of 1851 would showcase a wide selection of granite samples. The entrance hall to the Crystal Palace contained stone from Foggintor, while one of the more incongruous exhibits was a selection of knives supplied by the Exeter silversmith Ellis and Son, which featured handles made from 'Dartmoor granite, highly polished'.[70]

The ascendency of granite in the realm of aesthetics reflected broader developments in British society. Central to Victorian society was the concept of the individual. The beginning of Victoria's reign witnessed a cultural shift, with the emergence of both new wealth and a romantic aesthetic underpinning the 'abandoning [of] the signposts of authority for the fancies of the individual'.[71] This philosophy was a legacy of the French revolution, which had popularised the right of the masses to private judgement.[72] While these ideas were considered intrinsic to human nature, they were rooted in middle-class conceptions, and both legitimized and served their needs. The rise in status of the bourgeois capitalist saw thrift and self-sufficiency become qualities to be aspired to, while the visibility of growing

[69] *The Builder*, 23 December 1843, p. 557.
[70] *The Times*, 8 July 1851, p. 9; *Exeter and Plymouth Gazette*, 12 April 1851, p. 4.
[71] Briggs, *Victorian Things* p. 14.
[72] Walter Houghton, *The Victorian Frame of Mind* (New Haven: Yale University Press, 1976) p. 96.

industry showcased the ability of the individual to innovate and produce. The integrity of the individual became enshrined in British law. The rise and consolidation of free trade – an economy unregulated by state intervention – emphasised the competitiveness and enterprise of the individual.[73] This new-found individualism was reflected in architectural developments. Donald Olsen argues that the most significant architectural development of the nineteenth century was the creation and subsequent mass spread of 'professional' building, and in particular the development of purpose-built buildings in place of structures which were designed to be adaptable between different roles.[74] The beginning of the Victorian era witnessed the emergence of a number of new professions, all of which sought to standardise and regulate their practices, in order to improve their respectability and credibility, and increase their social standing.[75] 1837 saw the formal establishment of the architect as a profession, together with its supporting organisation, the Institute of British Architects, while the emergence of industry publications such as *The Builder* further aided the dissemination of knowledge.[76] The period from the late eighteenth century onwards had also seen the rise in status of the contractor. In particular, as the railway age dawned, the rise of the railway contractor embodied, in the words of Nicholas Faith, 'part shyster, part entrepreneur, part financier, part civil engineer, wholly typical of an age which bred characters of all descriptions.' Faith notes that none of this particular breed managed to build up and maintain a continuing business, their businesses instead being 'purely personal', the aim being to seek admission to parliament and 'retire to a life of idle luxury.'[77] While Samuel Morton Peto had more sincere intentions when he later became an MP, his career, which had begun in 1831 following the inheritance of his uncle's business, mirrored that of many contemporary contractors, through his embarking on a large number of very visible public

[73] Sean Purchase, *Key Concepts in Victorian Literature* (London: Bloomsbury, 2006) pp. 81-88.
[74] Olsen, *The Growth*, p. 23.
[75] Philippe Mari, 'Architecture at the Service of Ideology: William Morris, the Anglican Church and the Destruction, Restoration and Protection of Medieval Architecture in Victorian England', (Thesis, University of Montreal, 2010) p. 32.
[76] Lott, 'The Development', p. 53.
[77] Nicholas Faith, *The World the Railways Made* (London: The Bodley Head, 1990) p. 91.

projects.[78] It was through Peto's role as a contractor that Dartmoor's most famous contribution to architecture emerged. Granite from Foggintor, two miles east of Princetown, was selected for Nelson's Column on account of its fineness and uniformity of quartz and feldspar content, which not only provided a visual benefit, but also offered less likelihood of 'defacement' while being worked.[79]

This was one of the earliest cases of Dartmoor granite being singled out for its aesthetic appeal. In addition, questions arose over the morality of form and function, and of the way in which decoration could have utility as well as frivolity. The Building Acts which emerged in the wake of the Great Fire of London had restricted the level of ornamentation which could be applied to new structures, visibly influencing the architectural styles which followed.[80] The ensuing homogeneity of design conflicted with the Victorian ethos of individuality, the Victorian era witnessing a wholesale rejection of the Georgian use of classical aesthetics in its architecture, and of the solemn uniformity which was a feature of the earlier building style. Indeed, at the close of the nineteenth century, folklorist Sir George Laurence Gomme proclaimed that the Georgian spirit of architecture had been against art.[81] According to Olsen, the Victorian denunciation of the Georgian aesthetic was part of a broader rejection of Georgian and Regency concepts of the city. Far from being expressions of national glory, the city, and in particular London, came to symbolise Georgian hypocrisy, with neo-classical facades drawing attention away from issues such as sanitation and traffic congestion. The degree to which the Victorians rejected their Georgian inheritance was reflected in their choice of building materials. The earlier preference for materials such as stucco – a fine plaster used for decorative mouldings and finishes – was supplanted by more durable materials, often of deliberately rougher finishes.[82]

[78] Ibid. p. 103.
[79] *The Builder*, 13 April 1850, p. 169.
[80] Olsen, *The Growth*, p. 41.
[81] Ibid. p. 37.
[82] Ibid. p. 55-6.

The increasing fashion for granite was also driven by its distinctive colouring. Rather than simply seeking an improvement of architectural form, there was instead a strong desire to employ materials of a richer nature than had previously been the case. The use of hard wearing, durable materials strongly aligned itself with Victorian ambitions of creating enduring monuments to morality. In 1849, *The Builder* lamented that 'it is to be deplored that many of our finest modern buildings have been constructed from the most perishable materials, not from the choice of those who designed them, but because it was impossible to procure in any reasonable time, and at any reasonable price, an enduring stone'.[83] In addition, emphasis was placed on buildings possessing greater individuality, with the use of coloured materials helping to create a bespoke sense of identity for each building. In 1843, *The Builder* had considered the 'universal white paint of Queen Anne's days' as 'tasteless and chilling', while the 'monotonous and depressing… drab and slate colours patronised by George the Fourth' were held with equal disdain. William Johnson, manager of Foggintor quarry, quickly recognised the value of this new aesthetic. Addressing the British Association for the Advancement of Science in 1841, Johnson appealed to these new priorities, as well as patriotic sentiment, by declaring that the 'fine texture and tint of Dartmoor granite adapt it peculiarly for terraces and for the basements of buildings whose superstructure and other collateral works are of Portland stone, Bath stone, or any of the best English free-stones'.[84] As a granite merchant looking to expand his market, Johnson recognised that employing the stone throughout the entirety of a building would have been financially prohibitive for many people. By suggesting that buildings did not need to be entirely clad with granite, Johnson hoped to extend the appeal of his wares to those with a lesser budget. Such was the fashion for granite, that this period even witnessed the emergence of 'mock granite' in interior decoration.[85] Far from being a cheap alternative for lower-budget properties, mock granite could be found in the home of Devonshire land magnate Sir Ralph Lopes, who used it to

[83] *The Builder*, 30 June 1849, p. 312.
[84] *CE & A Journal,* p. 323.
[85] *The Builder*, 2 September 1843, p. 361.

decorate his Maristow Estate in the late 1830s.[86] These attitudes would be upheld throughout the mid-Victorian period. In 1864, *The Builder* proclaimed that the 'dingy old monotonous brick is, indeed, already fast disappearing, to be replaced by handsomer structures, not of the sham stucco, like Regent-street, but buildings of real stone, enriched with inlays or columns of polished granite, marble, or terra-cotta.'[87] Granite's status would lead geologist Edward Hull, in his 1872 treatise on British and foreign building stones, to proclaim it as 'the noblest of all rocks'.[88]

When it came to selecting granites on the basis of their visual attributes, such was the variety to be found, not just in Britain but in Dartmoor itself, that a particular emphasis came to be placed on identifying the specific quarry for the source. In the 1870s, R. N. Worth considered that the red granite found at Trowlsworthy near Shaugh, on the Southern edge of Dartmoor, to be the 'handsomest rock of its class in the West', despite being only six miles from the reputable and long-proven source at Foggintor.[89] During the same period, William Duke, previously manager of the quarries at Foggintor and more recently those at Pew Tor, considered the stone at Merrivale to be finer than that of Pew Tor, and more suitable for intricate work.[90] Using the generic phrase 'Dartmoor Granite' to promote the stone was clearly not always sufficient, and it is significant that this more general term was more often found when advertising to the general public as opposed to trained architects. The variety of materials available, together with the numerous opinions over which form of treatment yielded the most worthwhile results, presented any prospective architect with something of a minefield when it came to selecting the 'right' stone, even when the location of the source was specifically identified. The wide variety underscored the professionalisation of the architect, as the ability to identify and source the best materials became a prerequisite for

[86] TBP: 874/21/2 George Giles to Sir Ralph Lopes, 6 July 1837.
[87] Olsen, *The Growth,* p. 61.
[88] Edward Hull, *A Treatise on the Building and Ornamental Stones of Great Britain and Foreign Countries* (London: Macmillan, 1872) p. 4.
[89] Worth, 'The Economic Geology', p. 217.
[90] Helen Harris, 'Nineteenth Century Granite Working on Pew Tor and Staple Tor, Western Dartmoor', *Reports and Transactions of the Devonshire Association,* Vol. 113 (1981) p. 45.

success. Edward Appleton, architect and surveyor to the Board of Health, felt that in comparison to the Scottish granites, those of Dartmoor 'did not develop well by polishing', and the effort and effect achieved 'certainly does not repay the labour.'[91] In Appleton's view, the Dartmoor stone benefited most when given a rough and rugged treatment. In the large granite-producing area of Aberdeen, however, the top-quality polishing stone of which Appleton spoke was available in only very limited quantities, never accounting for more than ten per cent of the region's output, and Dartmoor was thus able to capitalise on the less discerning customer.[92]

During the late nineteenth century there was a conscious attempt to break down the boundaries between architecture and its 'sister arts', with Pugin arguing that sculpture should be central to communicating the 'national character' of a building.[93] The Middle Ages had been the subject of increasing public interest since the late eighteenth century, with a particular presence developing, through the Romantic movement, within the artistic and cultural sphere. Attributed to a dissatisfaction with the conditions which then existed, particularly the physical effects of mass industrialisation as well as the rise of capitalism and middle classes, Romanticism provided a means of escapism from the current environment. As this movement began to wane towards the middle of the nineteenth century, it came to be overtaken by a different form of medievalism, which while embodying the same dissatisfaction for the contemporary situation, saw the Middles Ages provide a model for the present and future.[94] The Gothic aesthetic was promoted by Pugin, Ruskin and other cultural arbiters as being an inherently 'English' style, and the only true form of Christian architecture, in comparison to classical architecture, considered fundamentally Pagan in origin.[95] Sir George Gilbert Scott, the leading architect of the Gothic Revival, did much to

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[91] Edward Appleton, 'The Economic Geology of Devon', *Reports and Transactions of the Devonshire Association* Vol. 7 (1875) p. 236.
[92] Donelly, 'Structure', p. 46.
[93] Alex Bremmer, '"Some Imperial Institute": Architecture, Symbolism, and the Ideal of Empire in Late Victorian Britain, 1887-93', *Journal of the Society of Architectural Historians*, Vol. 62, 1 (2003) p. 58.
[94] Mari, 'Architecture', p. 39.
[95] Ibid. p. 59-60.

popularise the granite aesthetic, and even by the mid-1860s was considered to be ‘the first London architect who appeared to appreciate [the] beauty and value’ of the material.[96] The use of the Gothic style by Charles Barry for the new Houses of Parliament also helped popularise the movement for non-religious works.[97]

Nonetheless, the use of Gothic Revival architecture is most widely associated with ecclesiastical buildings. The emergence of the granite industry on Dartmoor coincided with an upswing in the number of new churches being constructed. This provided the industry with new market opportunities beyond the initial dock contracts. The Church of England is often considered as having entered the nineteenth century in some disarray, having failed to respond to the demographic and economic changes which had impacted society during the previous century. In particular, the parish system had not been adequately developed to encompass the expanding industrial areas.[98] This situation had led to the formation of the Church Building Society, which successfully lobbied for the passing of the Church Building Act in 1818, following which at least £6,000,000 was spent on building 214 new churches, 174 of which were built in the Gothic Revival style.[99]

One of the more renowned local artisans to make regular use of Dartmoor stone was Harry Hems of Exeter, who established a large studio there in the 1870s, which specialised in producing ecclesiastical sculptures and church fittings. Hems was able to capitalise on the fashion for the restoration of churches, which had been gaining increasing momentum since the 1840s. Since the English Reformation, churches had enjoyed only limited building and maintenance work. Partly in an effort to offset these arrears in maintenance, but also with a view of increasing church attendances, the Anglican Church instituted a programme of church renovations. Rundown buildings, including many genuine medieval examples, became targets for attempts at ‘restoration’, in an effort to accentuate or even increase their

[96] *Granite, Marble & Bronze Magazine*, Vol. 15, p. 32.
[97] Mari, ‘Architecture’, p. 59.
[98] Mark Smith, ‘Religion’, in Chris Williams (ed.), *A Companion to Nineteenth-Century Britain* (Oxford: Blackwell, 2007) p. 337.
[99] Mari, ‘Architecture’, p. 29.

'Gothicness'. It was felt that by bringing their appearance into line with the contemporary fashion for Gothic Revival architecture, they would become more attractive to the general public. Between 1840 and 1870, 7000 medieval parish churches underwent such treatment, representing eighty per cent of the total number of parish churches in England and Wales.[100] Amongst Hems' Dartmoor-granite based contributions to church restorations in this period, were an elaborate pulpit for St Andrews' Church, Plymouth, in 1871 and the battlements and crocketed pinnacles fashioned for a church at Chumleigh in 1879.[101] Memorial crosses were also a regular feature of Hems' work, whether new erections or repairs to existing ones, and appear to have been exclusively treated in Dartmoor stone.

Dartmoor Companies

With granite lying in abundance on the surface of the Dartmoor landscape, local people had for centuries used it as a source for domestic building work, entering into agreements with the local landowner for its removal. Lying a mile and a half to the west of Swell Tor, Pew Tor became the subject of increasing activity in the early nineteenth century. This activity was aided by the existing network of tracks, which allowed stone to be transported with relative ease. Situated within the parish of Whitchurch, Pew Tor was owned by the Courtenay family; one of the oldest families in Devon, they had received the earldom of Devon in 1335. On Dartmoor, the early nineteenth century saw Walreddon Manor home to William Courtenay. Member of Parliament for Exeter between 1812 and 1826, Courtenay would subsequently inherit the estate of his namesake cousin, the ninth Earl of Devon, which at the beginning of the century was said to bring in £90,000 a year.[102] A wealth of correspondence survives from

[100] Ibid. pp. 3, 34.
[101] *Western Morning News*, 6 May 1871, p. 3; *North Devon Journal*, 4 September 1879, p. 2.
[102] 'Courtenay, William (1777-1859)', in *The History of Parliament: The House of Commons 1790-1820*, R. G. Thorne, (ed.), (London: Secker and Warburg, 1986), available at The History of Parliament https://www.historyofparliamentonline.org/volume/1790-1820/member/courtenay-william-1777-1859, accessed 10 February 2021; National Archives, catalogue description for D1508M Courtenay of Powderham,

the early nineteenth century concerning granite and peat licenses issued by Courtenay. John Gill was a typical example of those who entered into agreements with him. In 1817, Gill was granted a rent for fourteen years at £10 per annum for stone taken from the Parish of Whitchurch, with a fee of 2d to be paid for every ton. The 'contracts' which formed these agreements were often very informal in nature, in some cases the original letter agreeing to a licence simply being amended every twelve months to include an annual extension. Despite the apparently primitive nature of this activity, the quantities of stone taken could be considerable. William Burley wrote to Courtenay in 1828 to request permission to take away a twenty-foot block.[103]

Increased quarrying activity on Dartmoor raised questions regarding land ownership, with disputes over an individual's entitlement not infrequently arising. Dartmoor had once had an active tin industry, but with the collapse of this in the early eighteenth century, the moor had largely reverted to sheep and cattle grazing.[104] This extended period of minimal activity caused the value of Dartmoor to be perceived as negligible. The nineteenth century, however, witnessed a major revaluation of the moor. Because the land was now seen to contain valuable commodities, questions of ownership gained a new prominence when it came to extracting these commodities for profit. William Courtenay was particularly resolute in protecting his assets, being at the centre of a number of disputes. In 1816, Courtenay issued a notice warning that on the Whitchurch Common 'Many trespasses have lately been committed', and that 'whoever shall be found cutting stone, or fags, [peat] there from, without my Permission, will be prosecuted.'[105] Unauthorised removal of stone remained a problem, for in 1828 William Burley and Thomas Piercy wrote to Courtenay 'expressing our sorrow' after Courtenay had threatened legal action for their taking of stone from Merrivale Bridge, a

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available at https://discovery.nationalarchives.gov.uk/details/r/6189ffcf-07f3-443d-95d0-c9e95056a118, accessed 10 February 2021.

[103] Devon Heritage Centre, Exeter (hereafter 'DHC'): L1508M/M/Whitchurch/2, William Burley to William Courtenay, 14 June 1828.

[104] Booker, 'Industry', pp. 110-111.

[105] DHC: 1508M/0/SS/Mining/19.

situation which was happily resolved after the offenders agreed to pay a fee of ten shillings as recompense.[106] Courtenay's assertion of his proprietorial rights did not sit well with all of the area's inhabitants. In 1830, local man Jonas Ridout went to the extent of having notices printed, denouncing Courtenay's right to an area of common land known as the Inner Moor, albeit to little avail. Courtenay treated 'said notices with the indifference they merit'.[107] The English legal system struggled to formulate a coherent theory for the definition of common land. Instead of a system whereby land was either clearly defined as belonging to someone, or belonging to no one at all, the long history of feudalism had complicated matters, with land often belonging to a lord who had endowed numerous individuals with varying levels of rights and obligations.[108] A more serious ownership dispute arose in 1846 when the Duchy of Cornwall considered Pew Tor to fall within their possession.[109] Courtenay, concerned over the 'very extensive operations' to remove granite from the area and the loss of his rights, sought to regain a degree of control.[110] After a prolonged correspondence, agreement was reached whereby profits from sales of stone would be shared between the two parties, the Duchy holding the right to grant quarry licenses, while Courtenay was reserved the right to take stone for his own use. At the same time, boundary markers were installed, in the form of stones marked with a circle surrounding a cross.[111] The extent to which this constituted a profitable arrangement is

CAUTION.

Whereas,

MANY Trespasses, have lately been committed on those Parts of the Whitchurch Commons, called

Inner Moors,

BELONGING TO THE MANOR OF WALREDDON.

I do hereby give Notice,

whoever shall be found Cutting or Carrying Stone, or Fags, there from, without my Permission, will be prosecuted.

W. Courtenay.

Walreddon-House, June 1st, 1816.

CHAVE, PRINTER, &c. TAVISTOCK.

Notice issued by William Courtenay, 1816.
Devon Heritage Centre: L1508M/M/Whitchurch/2

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[106] DHC: 1508M/0/SS/Mining/19, William Burley and Thomas Piercy to William Courtenay, 23 May 1828.
[107] DHC: 1508M/0/SS/Mining/19, Notice from William Courtenay, 12 October 1830.
[108] Daniel Stout, 'Uncommon Lands: Public Property and the Rise of the Individual', *Victorian Studies*, Vol. 2, No. 2 (2018) p. 271.
[109] DHC: 1508M/0/SS/Mining/19, James Robert Gardiner to Messrs Little & Woollcombe, 20 November 1846.
[110] DHC: 1508M/0/SS/Mining/19, William Courtenay to James Robert Gardiner, 24 November 1847.
[111] Harris, 'Nineteenth Century Granite Working', pp. 32-34.

questionable, as in the period from midsummer 1848 to Christmas 1849, the sum received by Courtenay from the 'Pewtor Granite Quarries' was seven shillings and sixpence.[112]

As the granite industry began to develop on Dartmoor and competition arose, questions of land ownership were not the only contentious issues. With the development of modern commerce, brand identities began to be developed, as proprietors aimed to promote their wares to the emerging consumer market. Within the realm of the Dartmoor granite industry, the name of Haytor emerged early on as an important brand, one which was subsequently fought over as companies attempted to expand their share of the market. The importance of securing markets and creating client bases was illustrated in 1849, during an attempt to revive the then defunct Haytor company. During this period it was announced that Messrs. J.G. Knight had become the agent to the company, with the intention of opening a depot in London along the Regents Canal at Mile End. London was an important market for granite, and the opening of a depot there marked a clear attempt to gain a foothold against competitors. At the time it was stated that the company was capable of supplying 8000 tons per month.[113] The importance of establishing a recognised brand was demonstrated the following year, when an advert for the company, now listing their agent as George Clark, stated that their stock was available at their self-titled premises of Haytor Wharf, Rotherhithe.[114]

Railways, through their ability to move large tonnages of material, provided the key which enabled Dartmoor's granite industry to move from localised stone taking to mass exportation. Situated around thirteen miles to the east of Princetown, Haytor was where the Dartmoor granite industry first became established on an industrial scale. This was made possible by the opening of the Haytor Granite Tramway by Devon landowner George Templer in 1820. The estate which Templer had inherited had been established by his

[112] DHC: 1508M/0/SS/Mining/19, Account of dues received by the Duchy of Cornwall from Pew Tor Quarries, 1849.
[113] *The Builder*, 30 June 1849, p. 312.
[114] Ibid. 18 May 1850, p. 239.

grandfather James, a civil engineer who had made his fortune through dock construction, overseeing the opening of the first quarries on Haytor to supply material for his rebuilding of Plymouth docks in the early 1760s.[115] The Haytor tramway serviced existing quarries which had become subject to increasing demand for metropolitan building works, the specific stimulus for the construction of the tramway, which uniquely used granite rails, being credited as the receiving of a large stone order for the rebuilding of London Bridge. Stone from the quarries was transported via the tramway and Stover Canal to Teignmouth, from where it was shipped out using coastal routes. The opening of the Haytor tramway was contemporaneous with the construction of the Plymouth and Dartmoor Railway, and, at the formal opening of the Haytor route, George Templer expressed hope that 'both might prosper, and not endanger, by improper rivalry, the success of either.'[116]

The opening of the Plymouth and Dartmoor Railway in 1823 marked the second major development which stimulated the granite industry on the moor. Conceived as a means of facilitating the policy of moorland improvement which was then being implemented under the aegis of Sir Thomas Tyrwhitt, the granite trade was intended to be just one of a number of activities, particularly agriculture, which the line would help support. In the event, the granite industry would come to dominate the line's activities for the remainder of the century. As a means of increasing the productivity of the land, quarrying had an advantage over agriculture in that it could be practised throughout the course of the whole year, whereas agriculture by its very nature was a seasonal activity, the winter period seeing the cultivators of Dartmoor bound to a 'state of inactivity and seclusion,' as was reported by the Reverend J.P. Jones in 1823.[117] Much of the incentive for the development of quarrying sites along the P&DR appears to have come from the landowner, Sir Masseh Lopes. Despite Lopes attempting to enter the market on his own accord, the P&DR ultimately sublet the granite

[115] Michael Christopher Ewans, *The Haytor Granite Tramway and Stover Canal* (Dawlish: David & Charles, 1964) p. 11.
[116] Ibid. pp. 15-17, 21.
[117] Somers Cocks, 'Exploitation', p. 256.

rights at Foggintor and Swell Tor to Johnson & Brice, who had been contractors for the line.[118] Johnson & Brice were a London-based firm of some standing, John Johnson junior serving as an Alderman for the City of London from 1836 to 46, while during 1845 he held the position of mayor.[119] The firm benefited from low carriage rates on the P&DR, which had been granted to them in order to offset the large debts that the railway company owed to them.[120] The monopoly which Johnson & Brice gained arguably allowed the granite industry on Dartmoor to remain competitive within the wider market, as in contrast to the other major granite centres, the quarries on the moor were not within close reach of a port. Had the firm been subject to more realistic carriage rates, the profit margins may have been unsustainable. In the first eighteen months of operation, the P&DR carried 7,015 tons of granite. The construction of Laira Bridge over the River Plym on the outskirts of Plymouth, during 1824-27, provided the quarries with one of their first big orders.[121]

The ability of Johnson to source stone from several different quarries enabled them to expand their share of the market. In 1849, the company announced that they had been able to 'procure from one of their quarries a quality of stone never yet introduced into the market.' Customers of more refined tastes, to whom 'the prominent appearance of feldspar might be objectionable,' would now be able to order a stone of which it was 'impossible to perceive any difference between it and the best blue granite from Aberdeen.'[122] By the early 1840s, William Johnson reported that the already extensive works at Foggintor were in the process of further development, with the introduction of travelling frames and powerful traversing crabs being intended to speed up the process of transferring blasted stone to the masons'

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[118] Stanier, *South West Granite*, p. 19.
[119] Clarke, *Building Capitalism*, p. 196; Alfred P. Beaven, 'Chronological list of aldermen: 1801-1912', in *The Aldermen of the City of London Temp. Henry III - 1912* (London: Corporation of the City of London, 1908) pp. 141-156, available at *British History Online* http://www.british-history.ac.uk/no-series/london-aldermen/hen3-1912/pp141-156, accessed 10 December 2019.
[120] Herbert George Kendall, *The Plymouth & Dartmoor Railway* (Lingfield: Oakwood Press, 1968) p. 50.
[121] TBP: 69/M/6/533, Laira Bridge Construction Correspondence, 1823.
[122] *The Builder*, 30 June 1849, p. 312.

sheds, and thus keep the quarry clear for further blasting.[123] A description from 1846 provides a vivid depiction of the works:

> An immense excavation presents itself studded with workmen, as busily employed as bees in the hive: some are boring holes in the flinty rock; others are filling the cavities with powder; some are chipping the rude blocks into shape; others are lifting their ponderous weight by cranes and levers; horses, carts, and railroad waggons, are in constant employment, to convey away the heavy masses of stone, (some twenty feet in length) which have been made available in the principal public works, lately carried on in the metropolis.[124]

That the firm, now Johnson Bros., was busily engaged in supplying the capital was no accident. Outside of the immediate local area, the region which provided the main catalyst for the development of the granite industry on Dartmoor was London, not simply through its demand for the raw stone, but through the finance and business contacts that it supplied, with both Johnson and Templer's firms being based in the capital.

To successfully promote Dartmoor's granite outside of the locality required the development of a recognisable brand. This would lead to industrial subterfuge. With Haytor quarry having gained a strong reputation, but with sporadic output, the late 1830s saw Johnson Bros. take over the lease of the quarry, and promptly shut it down. The company then rebranded their own Foggintor-based quarrying firm as the 'Haytor Granite Company' and used the well-known Haytor name to market their own wares.[125] In 1849 there was a separate attempt to revive the original site on Haytor, which had lain out of use since Johnson closed it. A lengthy advert extolling the new 1849 company was quick to point out that 'these quarries were originally opened in 1825, when the old Devon Haytor Company was formed', in apparent defiance of Johnson's bogus Haytor company.[126] This concern with being the true

[123] *CE & A Journal,* p. 322.
[124] Rachel Evans, *Home Scenes, or Tavistock and its Vicinity* (London: Simpkins and Marshall, 1846) p. 147.
[125] Stanier*, South West Granite*, p. 145.
[126] *The Times*, 8 July 1851, p. 9.

Haytor did not stop the 1849 promoters from falsely claiming the use of Haytor granite in several notable buildings, despite the buildings in question having used stone from other Dartmoor quarries. In addition, in a move that can only have caused even more confusion, the new 1849 venture was named the 'Devon Haytor Granite Company,' the third such company to use Haytor in its name. In July 1850 the advertisement columns of *The Builder* even saw adverts for the two companies' products appearing next to each other.[127] The promoters of the 1849 company were at pains to point out the deficiencies of Templer's original operation at Haytor, asserting that 'at that period every company was established on a system of almost unbounded expenditure, and without regard to the interest of shareholders… the old Company was no exception this rule.'[128] The detailed breakdown provided by the advert, of both the original company's structure and that of the new one, was doubtless intended to instil public confidence in the legitimacy of the new organisation. Emphasis was also given to reporting the results of recent experimentation into the resistance of the Haytor material to both crushing forces, and general wear.

HAYTOR GRANITE COMPANY (incorporated by Royal Charter) continue to supply their SUPERIOR GRANITE from the QUARRIES at FOGGINTOR, on DARTMOOR, at MODERATE PRICES. The Nelson Memorial; Statue of King William, City; and the large Graving-dock at Woolwich, are specimens of this material.—Offices, No. 4, Millbank-row, Westminster; and Granite Works, Laira, Plymouth; where information may be obtained.
By order of the Directors, C. C. D. HOAR, Clerk.

DEVON HAYTOR GRANITE from the Original Quarries, Haytor Rocks, Devon.—This superior Granite can now be supplied to any extent. Orders for the largest sizes of Granite Blocks can be executed with the greatest ease from these Quarries, and at low prices. Cargoes supplied direct to all parts. Specimens of the Devon Haytor Granite may be seen at the following places, viz.:—London-bridge, Goldsmiths' Hall, Fishmongers' Hall, Christ's Hospital, George the Fourth's Room in the British Museum, and the Great Arch of Tothill-fields Prison, &c. The trade are invited to inspect this Granite. A stock kept at the Company's Depot, Devon Haytor Wharf, Rotherhithe, London. Application for prices to be made to Mr. G. H. CLARK, sole Agent, address as above.

The Builder, 1850.

In a strong show of optimism, the promotors announced – with increasing vagueness – that they had 'every reason to expect that the stone will be largely used in the following contemplated public and other works, independent of the usual market demand; Westminster Bridge, Victoria Docks, Woolwich, Thames Embankment, Folkstone Harbour, Southampton, Gravesend, Hull, Sunderland, Portsmouth and Sheerness Docks, the approach to the new Chelsea Bridge etc.'[129] This attempt to whip up public interest appeared to be a list-ditch effort to save the company, for no sooner had such adverts appeared, than

[127] *The Builder*, 13 July 1850, p. 336.
[128] *The Times*, 8 July 1851, p. 9.
[129] Ibid.

it was agreed at an extraordinary general meeting that the company should be dissolved.[130] A second attempt to revive the original Haytor site was made in late 1852 by William Rough, chairman of the 1849 company, this time under the title of the South Devon Haytor Granite Co.[131] While sharing the same aspirations as the previous this attempt, this too floundered. Despite the hopes of the Haytor revivalists that Westminster Bridge and the Thames Embankment would bring prosperity to their new company, it would ultimately fall to Johnson's firm to supply these projects. However, material would not be supplied for the piers of Westminster Bridge until 1859, while it would be 1866 before the Thames Embankment made use of Johnson's granite.[132] This episode serves to demonstrate the pitfalls which awaited speculative companies reliant on contracts. Despite there being moves afoot to construct a new Westminster Bridge at the time of the 1849 Haytor revival attempt, there then elapsed a period lasting nearly a decade before this potential source of profit could have been realised.

The attempts at reviving the original Haytor quarry came at a time when the granite industry had gained a respectable status. In advertising for the revived company, the *Morning Post* proclaimed that 'this company is certainly one of the few which presents real and solid inducements for investments of individual capital.'[133] In the same way that the informal granite-taking leases on Pew Tor had given away to formal contracts, new forms of organisational structure were introduced onto the moor by the professional development of the quarrying companies. Until the mid-nineteenth century, company legislation did not envisage business corporations being either private or small. Instead, companies generally existed as large public corporations, with smaller organisations consisting of sole proprietorships, partnerships or family firms.[134] In 1824 there were just 124 companies

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[130] The National Archives, Kew (hereafter 'TNA'): Records of the Board of Trade, BT 41/191/1088, Devon Haytor Granite Company Registration File, 1849.
[131] *Western Times*, 11 December 1852, p. 1.
[132] *Royal Cornwall Gazette*, 30 December 1859, p. 6; *Illustrated London News*, 11 August 1899, p. 146.
[133] *Morning Post*, 12 July 1850, p. 2.
[134] Ron Harris, 'The Private Origins of the Private Company: Britain 1862–1907', *Oxford Journal of Legal Studies*, Vol. 33 No. 2 (2013) p. 378.

registered, while by 1843 this figure had risen to 720. The fourteen months which followed the 1844 General Incorporation Act, saw the registration of 1,639 joint-stock companies.[135] The tightening up of company law during the 1840s and 1850s, particularly with the introduction of limited liability in 1855 and the passing of the Joint Stock Companies Act in 1856, increased public confidence when it came to investing in new ventures.[136] Consequently over the following years a number of new schemes were floated which sought to take advantage of the market for granite, with, by 1858, the four quarries on Dartmoor producing between themselves 17,150 tons of granite.[137]

Roger Osborne has identified the characteristic British entrepreneur of the eighteenth century as being the 'artisan plus', those who were trained artisans, or from a craftsman or merchant background, who were ambitious and had access to funds for investment, but who were not part of the higher social orders. Industry potentially provided a means of social mobility at local, regional, or even national levels.[138] A similar demographic provided the impetus for the various granite companies formed during the mid-nineteenth century; among those who subscribed to the share offer for the 1849 Haytor revival were the London saddlers W. and W.J. Langdon. A similar pattern could be seen twenty years later. In 1867 the Dartmoor Granite Company was formed with the intention of acquiring existing quarries on Dartmoor. Aiming to raise a capital of £50,000 through the sale of 5000 shares at £10 each, the company appears to have had a relatively small initial take-up; the share price was high compared to other schemes which may have had an effect. The company's registration file reveals that the shareholders were drawn largely from the London area, consisting chiefly of gentlemen, although also featuring interest from civil engineers. In 1870 it was announced that having been unsuccessful in its objective of purchasing certain quarries, the

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[135] Ibid. p. 345.
[136] Ron Harris, *Industrializing English Law: Entrepreneurship and Business Organisation, 1720-1844* (Cambridge: Cambridge University Press, 2011) p. 151.
[137] Robert Hunt, *Mineral Statistics of the United Kingdom of Great Britain and Ireland* (London: HMSO, 1858) p. 134.
[138] Roger Osborne*, Iron, Steam & Money: The Making of the Industrial Revolution* (London: Bodley Head, 2013) p. 36.

company would henceforth be wound up.[139] A new company of the same name was formed in 1873. Aiming to raise the more modest sum of £15,000, albeit with the same share price of £10, the new company elicited a considerably more successful response, with, in one case, Robert Hovenden, a London perfumer, purchasing a total of £1,000 worth of shares. The remainder of the initial subscription was taken up by surveyors and 'gentlemen'. It is clear that a degree of social networking had occurred, as among the surveyors, William Heath and Robert Berridge were both partners in the architectural firm of Hovenden, Heath & Berridge, the last named having only joined the previous year.[140] Interestingly, among the further influx of shareholders that occurred in 1874, was Thomas Hovenden, a civil engineer and brother to Robert Hovenden. By the end of 1874, half of the capital had been raised, however the company's affluence would appear to have been short lived. At a special general meeting of shareholders in May 1875, the company reported that it could not 'by reason of its liabilities continue its business', and the decision was made to have the company voluntarily wound up. A brief correspondence which occurred nine years later implied that the liquidation had been under order of court.[141]

1870 saw the formation of the Devon and Cornwall Granite Company, with the objectives of 'purchasing, leasing or otherwise acquiring and holding of Granite Quarries… in the Counties of Devon and Cornwall' together with 'the working of said Granite Quarries, and the purchase and sale of Granite.'[142] That the company had optimistic ambitions is borne out by the fact that it was the intention to either purchase, rent or construct 'any roads, tramways, wharves depots, storehouses, workshops and landing-places' that would be required for it to go about its business. While the formation of the company had been announced in the local Cornish press, the initial subscription to the company consisted largely of middle-class

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[139] TNA: BT 31/1339/3532, Records of the Board of Trade, Memorandum of Association of the Dartmoor Granite Company, 1867.

[140] *Proceedings of the Institution of Civil Engineers*, Vol. 151 (1903) p. 427.

[141] TNA: BT 31/1873/7432, Registrar of Joint Stock Companies to Secretary of Dartmoor Granite Co., 7 June 1884.

[142] TNA: BT 31/1519/4768, Records of the Board of Trade, Memorandum of Association of the Devon and Cornwall Granite Company, 1870.

professionals from west London. These included a solicitor, an accountant, a chemist, together with a 'gentleman of no occupation' from Paddington, who invested fifty pounds in the scheme. It is notable that a number of shareholders resided along the route of the Great Western Railway, which would have provided the only direct rail link to Dartmoor. By 1891 the company had become defunct.[143]

Prior to this point, the quarrying activity to the west of the Plymouth & Dartmoor Railway at Pew Tor did not present much in the way of competition to the railway-based sites at Swell Tor and Foggintor, with surviving records seemingly indicating that the workings at Pew Tor worked on a somewhat erratic basis. In 1874 however, the manager of the Foggintor works, William Duke, attempted to set out on his own in the industry, taking over the workings at Pew Tor and Staple Tor, and opening a further site at Merrivale Bridge. Duke went to much effort to improve access to the site, erecting buildings and creating roadways. Duke's son had taken over Merrivale quarries in 1898, which over the following decade produced an annual output of 8,000 tons. This was yet another Dartmoor quarry which was able to benefit from the increasing traffic congestion in London, stone from the quarries being used to widen Blackfriars Bridge in 1907-10.[144] Poor road conditions could also impact the industry much closer to home. During the widening of London Bridge, stone from Merrivale was transported by road to Tavistock station. When Tavistock Rural District Council expressed concern, however, over the damage this traffic was causing to the roads, Duke offered to pay the council an annual fee of £100 for the duration of the heavy traffic.[145] During this period the company applied for a Light Railway Order, with the intention of building a one and three-quarter mile line to connect with the Princetown Branch at King's Tor. With the granite blocks used at Blackfriars ranging in size from two to twenty-seven tons, it is not surprising that a more direct route was considered expedient – the nearest rail connections were either at

[143] TNA: BT 31/1519/4768, Records of the Board of Trade, Memorandum of Association of the Devon and Cornwall Granite Company, 1870.
[144] Lake's Falmouth Packet and Cornwall Advertiser, 24 July 1908, p. 5.
[145] *Stone Trades Journal*, April 1903, p. 236.

Princetown, nearly three and a half miles away and mainly uphill, or Tavistock, five miles away, albeit downhill. Although an Act was obtained and a company formed, the line was not built, despite further Acts being obtained in the mid-1920s. Such moves do at least show that, on the west side of Dartmoor at least, significant investment in the industry was still thought to be profitable.[146]

The question of transport was always a key element for the granite industry, due to the difficulties caused by the stone's weight. During construction of Nelson's Column in 1841, it was reported that 'some unavoidable delay was occasioned in the works during the late severe frost in consequence of the vessels laden with granite from the Foggintor quarries at Dartmoor not being able to come up the river.'[147] During the following Spring it was reported that granite from Foggintor was 'continually being conveyed to London and to the provinces by means of the railways, etc'; however in reality, the rail-borne part of the journey would have only involved the Plymouth & Dartmoor Railway.[148] It would be another four years before a mainline railway arrived in Plymouth and connected it to the capital; prior to this the remainder of the journey would have been undertaken by coastal ship. The spread of the railway network during the middle of the century created the potential for new inland markets. The degree to which the rail network was perceived to have become integral to sustaining the industry can be gathered from an 1860 government volume detailing the stones and quarries within the British Isles. *Mineral statistics of the United Kingdom of Great Britain and Ireland for the year 1860* gave not just the particulars of the quarries themselves, but also listed the nearest station or shipping port.[149] Gourvish has argued however, that prior to 1850, the railways did not have an immediate impact on the expansion of industry itself.[150] In general, land transport, as opposed to water transport, was prohibitively

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[146] TNA: MT 58/331, Records of the Ministry of Transport, Merrivale Light Railway - Light Railway Order, 1909; TNA: MT 58/459, Records of the Ministry of Transport, Merrivale Light Railway - Revival of Powers, 1924.
[147] 'Miscellaneous', *The Examiner*, 11 April 1841, p. 233.
[148] *London Evening Standard*, 21 April 1842, p. 4.
[149] *The Builder*, 1 December 1860, p. 761.
[150] T. R. Gourvish, *Railways and the British Economy 1830-1914* (London: Macmillan, 1980) p. 33.

expensive, and only considered when speed of delivery was essential.[151] With Plymouth being many miles from a canal network, the great weight of the material to be transported combined with the state of early nineteenth-century roads, meant that coastal shipping was the only viable option when it came to exporting the material out of the locality. The shipping routes from Plymouth therefore dictated where the granite could be sent and played a significant role in determining where the market for the material formed.

Furthermore, prior to 1823 a Customs duty existed on all stone that was shipped via coastal routes, which was paid at the destination port. With a tariff calculated from the value of the stone rather than its weight, by 1819 this had reached £26 6s for every £100 worth of material shipped. As a consequence, it was more profitable to ship stone in an undressed state, with finishing generally being carried out on site or at a work yard nearby. In 1821 the P&DR Committee sent a request to the Treasury asking for granite to be exempted from this duty, over concerns that it would hinder the development of granite traffic. The subsequent repeal of the duty in 1823 therefore provided greater inducement for dressing stone at the quarry itself, further stimulating development and investment in such sites.[152] Steamship services from Plymouth to Portsmouth had begun in 1826, while an 1830 directory stated that steam packets from London reached Plymouth in two days, there being three services a week.[153] The arrival of the South Devon Railway in Plymouth during 1848 provided Dartmoor with a direct rail link to the capital, potentially stimulating new interest, although in practice some time elapsed before a working agreement was reached between the SDR and the P&DR.[154] While the railway made inland markets more readily accessible, their cartage rates, like coastal shipping some decades earlier, made it more preferable to send higher

[151] Gary Richard Hawke, *Railways and Economic Growth in England and Wales 1840-1870* (Oxford: Clarendon Press, 1970) p. 411.
[152] TNA: RAIL 566/1, P&DR Committee Meeting, 18 February 1822.
[153] Dorian Gerhold, *Road Transport Before the Railways* (Cambridge: Cambridge University Press, 1993) p. 198-99.
[154] Kendall, *The Plymouth & Dartmoor Railway*, pp. 59-62; Edward Terence MacDermot, *History of the Great Western Railway Vol. 2, Revised edition* (London: Ian Allan, 1964) p. 217.

value goods, e.g. polished stone. It is therefore significant that the only large engineering projects in which Dartmoor granite continued to be used were those accessible by water.

The constantly changing fortunes of the original Haytor quarries evidently caused confusion within the wider building industry, it being reported in a number of publications that the works there had closed, when in fact they were still open.[155] In 1857, while engaged in the construction of the Needles Light house off the Isle of Wight, the London-based civil engineering firm of Walker, Burges and Cooper, wrote to H. J. W. Neville, Superintendent Engineer of Plymouth Breakwater, enquiring if the Haytor Granite Company were supplying material to any public work besides the lighthouse, 'so as to account for their slow and unsatisfactory deliveries at the Needles.'[156] Neville had been a previous employee of Walker & Co., and his proximity to Dartmoor, together with his position, evidently provided a useful contact when information from the granite company itself was less than forthcoming. The purloining of the Haytor name was but one example of the moves taken by quarry firms to push competitors out of the market. In 1841, while overseeing the loading of his quarry's granite into a ship bound for the Plymouth breakwater, William Pearse of Par found that the vessel already contained a quantity of stone from another supplier. With the vessel still awaiting departure, Pearse lost no time in sending a letter to the breakwater engineers, in which he asserted that 'this fine grit stone, I have no doubt, alters its color [sic.] by exposure to the atmosphere… I therefore would not recommend it.' Pearse expounded; 'Any stone which changes color is not as durable as that which retains it; because, I conceived, that with the alteration of color decomposition commences'. In case the breakwater engineers were left in any doubt about where they should source their granite, Pearse concluded 'Now we know that Foggen Tor granite, the best on Dartmoor, does not retain its color and indeed I know of no fine grit granite that will. As regards the stone in our own quarries, of which the block sent herewith is a fair specimen, I can take upon myself to state most confidently that it

[155] George Harris, *Granites and Our Granite Industries* (London: Crosby Lockwood & Son, 1888) p. 38.
[156] TBP: 389/86, Walker, Burges & Cooper to H. J. W. Neville, 10 November 1857.

is not liable to change its color.'[157] The fact that Foggintor produced a coarse-grained granite seem to have been overlooked by Pearse. The larger firms could use their financial power to protect their interests, with the large Cornish firm of Freeman and Sons paying 'dead rents' to a number of landowners whose land contained granite deposits, in order that they could be kept out of the market and not be used by competitors.[158]

The main competition to Dartmoor came from Cornwall, and was mainly centred around the Penryn area. Under John Freeman, the firm of Freeman and Sons had been responsible for developing the Cornish granite industry, which before 1846 had been 'practically non-existent.' By the time of his death in 1911, around eighty quarries had been opened, employing some 1500 men.[159] Despite their virtual monopoly over the Cornish industry, the Freemans do not appear to have established any real foothold in Dartmoor itself, other than at Trowlesworthy on the southern edge of the moor, where they worked a small quarry, which, while producing a 'handsome stone', was in a location too inaccessible for it to be introduced into the market on a large scale.[160] In 1873 it was reported that this red granite was being sent to Freeman's granite works at Penryn, which usually sourced its material – grey granite – from the large number of quarries that existed in the local area. This was evidently to bolster the choice of material they could offer, with 'the work done upon the premises at Penryn …mostly of an ornamental description for architectural, monumental, and other purposes', including the 'shaping of columns, balustrades, and other stonework of circular section'.[161]

Towards the end of the nineteenth century the workings at Foggintor, Swell Tor, Ingra Tor and King Tor were taken over by the Plymouth-based contractor Pethick Bros. Pethick Bros. were a well-established firm, and during their tenure a wide variety of projects were undertaken. John Pethick served as mayor for Plymouth from 1898 to 1900 and would have

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[157] TBP: 389/82, William Pearse, 12 March 1841.
[158] *Cornish & Devon Post*, 4 March 1905, p. 2.
[159] *Proceedings of the Institution of Civil Engineers,* Vol. 188 (1912) p. 434.
[160] Harris, *Granites and Our Granite Industries*, p. 37.
[161] *Proceedings of the Institution of Mechanical Engineers*, Vol. 24 (1873) pp. 152-3.

been in an advantageous position when it came to public works contracts. Despite the company's size and impressive portfolio, it was evidently very much a family concern, and within a few years of the death of John Pethick, in 1904, the firm was wound up.[162] In 1917 the workings at Swell Tor, King Tor, and Ingra Tor, were taken over jointly by the South Devon Granite Co and Richard White Poppleston, as was the site at Foggintor. There does not appear to have been any quarrying activity carried out at Foggintor after 1906, however the 1917 lease made specific reference to the various dwellings which existed on the site, indicating that the site continued to provide a source of revenue after quarrying activity had finished.[163] Poppleston, who was a drfaper in Plymouth, would appear to have financed his involvement from the proceeds of his uncle's estate, who had died three years earlier.[164] Interestingly, even at this point in time the lease still referred to the 'waste lands' of Walkhampton, indicating that the traditional view of the moor was still pervasive. With the sites covered by an annual rent of £180, the lease did not make any mention of specific granite dues.

There was one further notable site of quarrying activity. It has been suggested that the construction of the prisoner of war depot at Princetown gave the Dartmoor granite industry a particular advantage, the prisoners providing a sizeable workforce in contrast to the situation elsewhere, where recruitment for the militia had produced a labour drought.[165] Despite this perceived advantage, the quarrying activities around the prison appear to have remained distinct to the stone industry which developed on the rest of the moor, remaining relatively small in scale. In 1870 the value of the convicts' labour was estimated to be within the region of £14,000, however much of this concerned cultivation and other activities, rather than simply quarrying.[166] By the early twentieth century, it was reported that 'hundreds' of

[162] Brian Moseley, 'Pethick Brothers Limited', available at Old Plymouth http://www.oldplymouth.uk/Pethick%20Brothers%20Limited.htm, accessed 3 July 2019.
[163] TBP: 874/48/123, Foggintor Granite Quarry Grant, 29 October 1917.
[164] *The London Gazette*, 2 July 1915, p. 6495.
[165] Clarke, *Building Capitalism*, p. 201.
[166] *Black's Guide to Devonshire* (Edinburgh: Adam & Charles Black, 1870) p. 242.

prisoners were engaged in quarrying activity, the stone being finished offsite. Whilst it appears that the majority of this stone was used within the vicinity of Dartmoor itself, a certain amount of it was sent away for use in 'breakwaters, lighthouses and public buildings.' Within the prison itself, small stone and granite chips were stockpiled for use in road repairs within the locality.[167] There appears to be just one instance of these quarries being used for a more prestigious role than the maintenance of roads. In 1904, the *Windsor and Eton Express* cryptically recounted how 'history is silent about those who quarried the stone for Scotland Yard, and the windswept work yards of Portland and Dartmoor may furnish one with a clue to the secret.'[168] A long-running question centred on whether prison labour constituted unfair competition. In 1888 the prison quarries had been used to supply stone for the Metropolitan Police headquarters on Victoria Embankment, leading to questions as to whether contractors were profiteering from the convicts' labour; as will be seen in the next section, towards the end of the nineteenth century a potent theme among industrialists was the question of fair trade. Henry Mathews, Home Secretary, responded that 'the granite required for the lower portion of the building has been worked by convict labour at Dartmoor. The work is done for the Government, and the Receiver of Police pays all expenses incurred, including delivery on the ground. The contract was concluded on the understanding that all the granite would be delivered free of cost, and the contractor derives no benefit therefrom.'[169]

The downturn in business which the granite industry experienced from the end of the nineteenth century onwards did not, evidently, stop all speculation on new works. In 1903 Massey Lopes granted William Damerell, a granite merchant from Stoke, Devonport, the right to work a quarry near Leather Tor, for an annual rent of £25, plus duties of 6d per ton on cut stone, and 4d per ton on rough stone.[170] This would appear to have been a new

[167] *Windsor and Eton Express*, 3 December 1904, p. 7.
[168] Ibid.
[169] Hansard HC Deb (2 August 1888) Vol. 329 col. 1214.
[170] TBP: 874/48/159, Leather Tor Granite Quarry Letting Conditions, 20 July 1903.

working, which was conveniently sited just off an existing road which crossed the Princetown branch slightly under a mile to the east of the quarry. With a lease which ran for twenty-one years, the quarry appears to have been only a very small working, with two minor outbuildings. Despite this it still appeared on maps in the late 1930s, although it had disappeared a decade later.

Decline

At the turn of the twentieth century a local newspaper could boast that 'Dartmoor granite exists in such quantities that it is said the moor contains enough to build all London of it ten times over.'[171] Despite the optimistic sentiment of this statement, by this point in time the fortunes of the moor's industry had begun to reverse, and its potential would remain unfulfilled. The number of quarries on Dartmoor had reached its peak in 1880 at twenty-one, up from seven in 1858. By 1905 this number had declined to twelve.[172] The widening of London Bridge at the beginning of the century provided a major boost for the Dartmoor industry, so much so that the work ended up being shared between Pethick Bros. and Duke & Co. That the quarries of Dartmoor were still able to mount a credible defence against the Cornish industry is evidenced from the fact that four Cornish companies had combined together in an attempt to secure this contract, however these moves also served to demonstrate the increasingly desperate state of the industry.[173]

The first big casualty of the Dartmoor granite industry was the same site which had been its first great success. In 1850 the original Haytor company had still been very active, employing around 100 people, but by 1858 the tramway had fallen into disuse and the quarries were deserted.[174] Serious competition for the granite trade had materialised surprisingly early. In

[171] *Torquay Times*, 4 March 1904, p. 6.
[172] Stanier, *South West Granite*, p. 64.
[173] *Stone Trades Journal*, January 1904, pp. 148-9.
[174] Ewans, *The Haytor Granite Tramway,* p. 25.

1834 John Biggs, secretary of the Haytor Company, reported that ‘we have more to fear from the Cornish people than from any other quarter …the Cornish appear to have opened the campaign with vigour and they are certainly eating the very vitals out of us.’[175] Three years earlier Johnson Bros. had found themselves supplying granite curbing at a loss, indicating that even in these early stages of the industry, profit margins could be narrow.[176] It has been suggested that the Haytor Company’s undoing was due to the need to double transfer the stone, first from wagon to barge at Ventiford, and then from barge to coaster at Teignmouth.[177] Writing in the years following the demise of the granite tramway, which even then was clearly considered to be of historic interest, local historian Robert Dymond lamented that ‘the completion of the Cornish quarries with their better facilities has proved too strong for our ancient friend.’[178] The quarries at Haytor would continue to experience blips of activity. As was observed in 1912, the site was ‘now only worked in a small way, for building-stone and monumental stone. The group of quarries near Foggintor and the Princetown railway have now taken the place of the Haytor quarries.’[179]

With the development of a railway network across Britain, the advantage in transport that the Dartmoor quarries once held over their rivals was lost. The opening of the Cornwall Railway through to Falmouth in 1863, concurrent with the construction of a station at Penryn, provided a direct rail-link to London, further increasing competition with Dartmoor for the supplying of stone to the capital.[180] The railway to Princetown, which until the late 1870s was still being worked by horses, was fast becoming anachronistic; however the industry it supported was insufficiently profitable to develop it further. The modernisation of the line in 1880s occurred too late in the day to have had any real chance of altering the moor’s fortunes. According to Worth, by 1875 although there was always a small demand for

[175] TBP: 310/21, John Bigg to George Templer, 1 April 1834.
[176] TBP: 1609/1241, John Johnson to Plymouth Commission for Paving, 4 February 1831.
[177] Ewans, *The Haytor Granite Tramway*, pp. 25-6.
[178] Robert Dymond, *Things New and Old Concerning the Parish of Widecombe-in-the-Moor and its Neighbourhood* (Torquay: Torquay, 1876) p. 80.
[179] Clement Reid et al. *The Geology of Dartmoor* (London: H.M. Stationary Office, 1912) pp. 86-7.
[180] MacDermot, *History of the Great Western*, p. 149.

granite, 'it is only occasionally, and for special purposes that this demand increases, and the Cornish granite has now almost entire possession of the field.'[181]

Whilst the quarries of Dartmoor may have initially gained a strong foothold within the London market, competition could still emerge. With the durability of granite being one of its key selling points, active comparisons between stone from different quarries were not infrequently made. In 1860 *The Builder* reported on a trial between Dartmoor, two varieties of Aberdeen, Peterhead, and a newly introduced Guernsey granite. The trial, conducted over seventeen months, sought to establish the wear-rate of the various granites when used as road setts. In this instance the products of Dartmoor fared poorly, coming fourth in the list, with a wear rate almost three times less than that of the Guernsey granite.[182] During a discussion in 1875, Edward Appleton related how the presence of feldspar, in considerable levels, was prone to crumbling into dust, while the granite itself was overly hard for the purpose. The cost of transporting the material was also considered to be a further deterrent.[183] Appleton's opinion may be borne out by the fact that there is little surviving record of Dartmoor stone being used in road construction, other than the stock kept at the prison for maintenance in the local area, and from the quarries at Swell Tor, which experienced a final breath of activity in the late 1930s, when waste granite was taken and crushed by Devon County Council for use as road metal.[184] The reputation of the material on which the industry was built was therefore liable to be undermined by the Victorian professionalisation of science.

The introduction of granite into the smoky atmosphere of Victorian London led to its own set of unforeseen problems. When exposed to carbonic acid, the feldspar within the stone proved vulnerable to decay, leaving the quartz and mica in relief. Unfortunately, this corrosive solution was ever present within London's rain, a result of the city's acrid

[181] Worth, 'The Economic Geology', p. 214.
[182] *The Builder*, 29 December 1860, p. 836.
[183] Appleton, 'The Economic Geology', p. 244.
[184] Helen Harris, *The Industrial Archaeology of Dartmoor* (Newton Abbot: Peninsula Press, 1992) p. 83.

atmosphere. It was remarked upon by *The Builder* that the Devon and Cornish granites were particularly susceptible to this corrosion, with the effect noted as being present on both the London and Waterloo bridges.[185] Partly as a result of London's atmosphere, the 1870s saw a move away from stone for public buildings in place of brick and terracotta, which could more readily withstand the metropolis' atmosphere, and continue to maintain a respectable appearance. Writing in 1891, the *Building News* could declare that 'red brick, once abhorred, has its day of retribution', whilst by 1895 it had 'almost entirely taken the place of stone.'[186] In fact as early as 1860, the price of stonework had put it at a disadvantage, *The Builder* noting that 'in London, and, indeed, we may add, in a large majority of our centres of population, bricks are habitually cheap and good; stone is rare and expensive; and it thus happens that stone becomes to us an object of luxury, only to be employed in monumental structures, or in the decorative parts of ordinary houses.'[187] Intriguingly, a patent was registered in 1854 by Edward Uren of Foggintor, for a 'new or improved machine and arrangements of machinery for the manufacturing of bricks, pipes, tiles, and artificial stone from clay and other plastic materials.'[188] Whether this represented a serious attempt to develop the business and combat potential competition, or was simply a vague aspiration, remains unknown. In addition to granite's lack of durability, a key artistic movement which had helped popularise its use during the middle of the century began to fall out of favour. The Victorians self-conscious knowledge of the past led to a plethora of architectural styles and the debates which surrounded them.[189] By the late 1860s Gothic architecture's success as a modern vernacular had begun to work against it, the style having become synonymous with urban industrial capitalism. A younger generation of architects, seeking to develop a new style which was preindustrial in both aesthetic and ethos, sought to convey a feeling of old rural England, and the 'Queen Anne' and 'Old English' styles which emerged under Richard

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[185] *The Builder*, 3 March 1860, p. 132.
[186] Olsen, *The Growth*, pp. 81-84.
[187] *The Builder*, 3 March 1860, p. 132.
[188] *The Commissioners of Patents Journal* (1854) p. 292.
[189] Readman, *Storied Ground*, p. 227.

Norman Shaw not only sought to evoke a more rustic village image in their styling, but made great use of red brick, and rejected materials which originated from outside the locality.[190]

In early 1885 it was announced that the quarries at Foggintor were to be closed, 'following some difference between Sir Massey Lopes and Mr Pethick', while elsewhere on the moor it was reported that labour had 'quite stagnated'.[191] While the closure of Foggintor was not at that point permanent, the downward trend with which the reputation of Dartmoor granite endured was such that in an 1885 Devon Quarter Session discussing materials for street improvement, the local Alderman was recorded as declaring that 'nothing could be worse than Dartmoor granite.'[192] The market for Dartmoor granite very much mirrored that of Aberdeen, in that demand was principally split between the local area and London. During the last decades of the nineteenth century the building industry became subject to cyclical fluctuations, with, in London, the industry experiencing a particularly noticeable lull during 1884-7 and 1893, during a time of economic recession.[193] In 1907 Merrivale was called on to provide stone for the extension of the North Eastern Railway's dock at Hartlepool.[194] By this point, however, the use of granite in marine construction was often being passed over in favour of concrete, which was a cheaper alternative.[195]

In late 1903 Pethick Bros. lost out on a contract for supplying kerbing and channelling to London. Quoting a price of between £800-900, which they considered to be 'very low', they found themselves undercut by a Norwegian firm who quoted a price fifteen to twenty percent lower. Whereas at one stage Pethick Bros. had been sending out between 100 to 150 tons of kerb and channelling a week, by 1903 this market had completely disappeared.[196] By this time there was increasing concern over the amount of foreign granite being imported; a 1904

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[190] Martin Wiener, *English Culture and the Decline of the Industrial Spirit* 1850 – 1980 (Cambridge: Cambridge University Press, 1981) pp. 65-66.
[191] *Tavistock Gazette*, 13 February 1885, p. 5.
[192] *Devon Evening Express*, 25 August 1885, p. 1.
[193] Donelly, 'Structure', p. 36.
[194] *Stone Trades Journal*, March 1910, p. 277.
[195] George Hall, 'Keyham Dockyard Extension, Temporary Works, and Plant and Appliances used in Construction', *Minutes of the Proceedings of the Institution of Civil Engineers* Vol. 172 (1908) p. 42.
[196] *Western Morning News*, 13 November 1903, p. 8.

report from the Home Office noting that employment in the Cornish quarries had slackened 'on account of importations from Norway', while more widely it was noted that over the past decade the amount of imported granite had doubled, from 8,000 tons to 16,000.[197] Curiously, one of the methods the granite industry employed in order to counter this threat, was for British interests to acquire various Scandinavian quarries, several of the Cornish firms having done so, including the Freemans.[198]

Concern over the effect granite importations were having on the home market had emerged as early as 1885, when John Pethick stated that foreign granite could be brought into the country at a cheaper price than it could be worked at in either the Dartmoor or Cornish quarries. Pethick placed the blame solely on the free-trade arrangement that then existed, whereby foreign imports benefited from a lack of any duty on them. The free-trade arrangement was at that time considered by many as having an injurious effect on British industry as a whole, Pethick's comments being made during a meeting of local industrialists who wished to see a revision of trading agreements.[199] It is worth noting that another of the gentlemen at the meeting, W.L. Martyn, partly attributed the current depression in trade to over-production. By the mid-1880s supply of kerbing had outstripped demand and it was later reported that the Cornish industry had 'tens of thousands of feet of kerbing for which there were no sale.'[200] Indeed, in August 1883 it was reported that at Foggintor, Pethicks' were 'anticipating work' by getting 800 tons of granite pitching ready for dispatch to Plymouth.[201] It has been argued that on a broader level, by the 1880s Britain's industrial proprietors lacked the zeal of their ancestors who had taken Britain through the early stages of the industrial revolution, having instead become acclimatised to the existing level of production and income that it provided, with little incentive to either modernise their industrial

[197] *Cornishman*, 21 January 1904, p. 3.
[198] Stanier, *South West Granite,* p. 10; *Exeter and Plymouth Gazette*, 25 February 1905, p. 4.
[199] *Western Morning News*, 30 July 1885, p. 3.
[200] *Cornishman*, 21 January 1904, p. 3.
[201] *Western Morning News*, 13 August 1883, p. 2.

processes or develop their markets.[202] Whether such an outlook can be applied to the industries of Dartmoor is open to question, given the scale of the operations, but it cannot be denied that region suffered as a result of the wider industrial position.

Since the mid-1840s British economic policy had worked towards promoting free trade, born partly out of the failure to develop reciprocal tariff arrangements with foreign countries, but also because it was believed that cheap imports would be of benefit to the consumer and in turn reduce domestic business costs. The Great Exhibition in which Dartmoor's wares played a small role, has itself been considered as an advert for free trade, showcasing as it did the products which Britain was able to sell to the world, as well as those foreign goods which its increasing prosperity allowed it to purchase.[203] Initiated under Robert Peel, this policy was continued by Gladstone during his tenure as Chancellor of the Exchequer, who by 1860 had removed import duties from 400 items. It was Gladstone's belief that market freedom would not only stimulate trade but also preserve domestic political stability. Through the abolition of financial protection – such as had existed under the Corn Laws – no particular area of society could use the state to gain economic advantages, and consequently restlessness among the mass population could be more easily avoided.[204] A further incentive for free trade, actively championed by the Liberal Richard Cobden, was that the resultant interdependence created between countries would reduce the likelihood of military conflict. Despite Cobden and Gladstone's aims aligning with those of Palmerston – in that peace would be preserved through the maintenance of power balances – the effect on the granite industry would be polarised. Whereas Palmerston's policies benefited the domestic granite industry, through the large construction projects that were instigated, the actions of Gladstone and Cobden would only serve to financially undermine it. Despite the aspiration that other countries would follow Britain's lead and similarly reduce import duties,

[202] Peter Lane, *British Social and Economic History from 1760 to the Present Day* (Oxford: Oxford University Press, 1979) p. 156.
[203] Howe, 'Britain and the World Economy', p. 22.
[204] Peter Cain, 'British Free Trade, 1850-1914: Economics and Policy', *Recent Findings of Research in Economic and Social History* 29 (1999) pp. 1-2.

this was not forthcoming. Tariffs in Europe in fact began rising after 1870, further increasing the disparity. This uneven situation, in which Britain was effectively an open door to foreign exporters, affected a considerable number of industries, of which the granite trade was no exception.

Free-trade had a significant effect on the British building industry as a whole. In 1903 John Pethick reported that 'scores of joiners' were out of work in Plymouth due to the importation of doors, etc., while three-quarters of marble chimney pieces came from Belgium.[205] As the new century dawned the question of free-trade and tariff reform became increasingly politically charged, with the granite industry finding itself being used as a pawn to promote political mantra. The Tories consent to the use of Norwegian stone at Keyham in 1905 was shouted down by Liberals; however when a few years later the Liberal government gave preference to using British granite in government contracts, it was claimed that this represented an inconsistency across British industry as a whole, with the majority of British trade not enjoying such protection.[206] In 1904 the question of imported granite was raised in the House of Commons by John Ward Spear, MP for Tavistock, who asked if Dartmoor stone could not be used for the extension of Keyham yard at Devonport dockyard, in place of the Norwegian then being imported. Spear lamented that there was 'scarcely any local industry in this part of Devonshire', with the passing over of the local stone for imported stone being a 'waste of labour and injustice to the locality.'[207] In 1905 Sir John Jackson, the engineer for the extension of the Keyham yard, reported that it had only been in the past decade that Norwegian granite had begun to be imported in large quantities, yet such was the exponential growth of imports during this period, that by the time of his report, it was affirmatively stated that the British trade had been 'absolutely done away with.' During the extension works at Keyham, two and a half million cubic feet of granite had been used. Of this amount, sixty percent had come from Cornwall, thirty six percent from Norway, and only

[205] *Western Morning News*, 13 November 1903, p. 8.
[206] *Cornish & Devon Post*, 31 October 1908, p. 5.
[207] *Exeter and Plymouth Gazette*, 18 March 1904, p. 10.

four percent from Dartmoor. In Jackson's opinion, the Norwegian industry held the advantage not because of the lack of British tariffs, but because its workers were only paid half or two-thirds of the rate paid in Britain, while in terms of the productivity of the respective labour forces, 'he did not say the Norwegians worked better. They worked more regularly. The Englishman went off drinking so often.' Furthermore, their quarries, being situated near fjords, allowed for easy shipment.[208] The increasing militancy of the unions had also previously been cited as a reason by the Admiralty for their passing over of British suppliers, the Norwegians being seen as more reliable, with their supply less likely to be disrupted by strikes.[209] When asked if he would be unwilling to invest money in Dartmoor quarries, Jackson replied that 'anyone would be very foolish to put money into them or any other granite quarries in England at the present time.' It was of his opinion that existing quarries were only viable where they were able to cater for small local needs. Dissatisfaction with the way in which government contracts failed to protect British industry led to The Operative Society of Masons appealing to the Admiralty in 1907 that 'we, as granite masons, are suffering severely from the great depression prevailing in our trade, and already numbers of skilled men have had to leave the country in the endeavour to find employment. The fair-wage clause was framed for the protection of the British workmen in all trades whatever, without distinction, and we beg that all Government contracts as far as possible, be made out of British materials.'[210] A further appeal was made by tariff reformers in 1909, who suggested that a ten percent duty on granite imports would allow the home industry to hold its own against foreign competition. This was not, however, forthcoming.[211]

The depression in the granite trade had wider economic effects on the land-value of Dartmoor. When, in 1905, the War Office desired to purchase a portion of the Calmady-Hamlyn estate on the western edge of the Moor, questions arose as to the value of the land.

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[208] Ibid. 25 February 1905, p. 4.
[209] *Quarry*, February 1898, p. 90.
[210] *Stone Trades Journal*, January 1908, p. 222.
[211] *Western Morning News*, 28 October 1909, p. 4.

Whilst it contained a large source of granite, which the then owners were keen to promote as being a useful source of revenue for any prospective new owner, Sir John Jackson, who had been assigned as arbitrator, was quick to assert that the marketable value was practically nil.[212] It should be borne in mind that Jackson, working on behalf of the government, was actively working to seek the lowest price, and in the opinion of W.P. Bolt of Princetown, manager for Duke & Co., a quarry on the estate could quite easily be worked at a profit. Whether W.P. Bolt had an eye on acquiring the land for his own firm so that it could be kept out of the market remains open to question.

The granite industry was reliant on a general market which was fickler and more subject to fluctuations than might at first be assumed, and once granite importations had gained a foothold in Britain, it became difficult for the domestic industry to regain the initiative. The nature of the granite market goes some way to explaining the short-lived nature of many of the firms which tried to profit from it, and can only have caused a reluctance to financially invest in such schemes. The First World War had served the industry as a whole with a further blow through the immediate fall in demand for engineering granite, together with the threefold increase in freight charges. In addition, it was reported in 1916 that over half of the industry's workforce had enlisted.[213] The war would, however, provide the industry with one last major injection of life.

Memorials

The nineteenth century witnessed an upsurge in internal migration, as industrial areas grew exponentially. The development of transport links, such as railways, and later trams, aided this mobility. By 1851 over three-quarters of the population of Manchester and Bradford had

[212] *Exeter and Plymouth Gazette*, 25 February 1905, p. 2.
[213] Stanier*, South West Granite*, p. 11.

been born elsewhere.[214] With an individual's 'home' no longer synonymous with their place of birth, new questions arose over identity. Counties and larger towns had traditionally held a strong sense of individuality; however the interventionist nature of legislation such as the Company Acts posed a threat to traditional liberties and local autonomy. Centralisation was considered a dangerous, foreign concept, at odds with British values.[215] The Local Government Acts of 1888-94 partially modernized local governments, making them accountable to a wider electorate. Through stimulating civic pride and local self-reliance, the Acts aimed to check centralising tendencies. The urban expansion which had already done much to boost demand for granite, would now draw on the granite industry to assert local identity. This identity was at its strongest in areas where a single industry predominated. Bolton had been a centre for textile production since the late medieval period and became one of the focal points for Lancashire's textile boom during the industrial revolution. In 1909 Bolton architects Bradshaw & Gass used stone from Merrivale for the monumental cross that they erected in the centre of the town. Replacing a succession of previous crosses which had historically stood on the site, but which had been absent for over a century, it was hoped that the restoration of this landmark, together with the historical information engraved into its sides, would encourage the new generation of Boltonians to learn about the history of the town and help generate a renewed sense of community spirit.[216] The use of Dartmoor granite for monumental use was already well established by this point. In 1866 Foggintor was called upon to supply stone for the statue of Prince Albert in Wolverhampton, while in 1883 it was used by Tavistock for the town's monument to Sir Francis Drake.[217] However, the most well-known use of Foggintor granite is undoubtedly in Nelson's Column. Interestingly, Nelson was not the only naval figure to be commemorated at this time with a monument made with stone from this quarry. Admiral Sir Harry Neale was the subject of a

[214] Williams, 'British Identities', p. 544.
[215] Geoffrey Russell Searle, *A New England? Peace and War 1886-1918* (Oxford: Oxford University Press, 2004) pp. 104-108.
[216] *The Sphere*, 13 November 1909, p. 10.
[217] *Hampshire Telegraph*, 12 December 1866, p. 4; *Tavistock Gazette*, 21 September 1883, p. 5.

memorial obelisk erected at Walkhampton in Hampshire in 1840.[218] Through celebrating the leader of a great battle, Nelson's Column very much followed the traditional pattern for war memorials of the time, when strong underlying themes of patriotism saw either great leaders or great events form the focus of a monument. However just a few years later the Crimean War would mark the start of a change in emphasis of memorials, witnessing an increasing acknowledgement of the role of the common solider, in tandem with a shift away from patriotism and pride, to one of commemoration.[219] The late nineteenth and early twentieth centuries saw conceptions of English identity being increasingly based in the common people, and at the turn of the century the Second Boer War helped further galvanise the creation of more locally-based memorials, being the first war to be widely reported in the national media, at a time when the media was itself increasing in scale. At this time memorials tended to have a regimental focus, generally being funded by the Lord Lieutenant of the associated county.[220]

Over the course of the second half of the nineteenth century, and into the beginning of the twentieth, the greater emphasis placed on the everyday combatant will have understandably broadened the appeal and created a greater resonance with local communities. As might be expected, the First World War had a substantial impact on the creation of war memorials. However, it was not simply the proliferation of such monuments which was significant, but also the shift in responsibility for their construction from the military and local authorities to local communities. The introduction of conscription had ensured that the war's impact was felt by even the smallest of communities, and not simply the larger conurbations, with the result that there was a great variation in the scale of memorial initiatives. In 1922, the architect H. G. Watkins noted in the *Architects' Journal* that 'since the war the outstanding feature of the great movement to erect war memorials in this country had been the

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[218] https://www.friendsofsirharry.org/who-was-sir-harry, accessed 1 August 2019.
[219] Amy Davidson, 'War Memorial Landscape Heritage in Britain', *Garden History* Vol. 42, No. 1 (2014) p. 59.
[220] Readman, *Storied Ground* p. 278; David Lambert, 'A Living Monument: Memorial Parks of the First and Second World Wars', *Garden History* Vol. 42, No. 1 (2014) p. 35.

universality of the smaller monuments, and the multiplicity of these in villages, churches, clubs, etc., which was very characteristic of the love of home and the individualistic spirit.'[221]

The fashion for using Dartmoor granite as a memorial stone, as opposed to monumental use, seems to have started gaining momentum during the 1890s. Due to its toughness and ability to withstand stress, granite was more suited to being fashioned into crosses, which had become fashionable during the second half of the nineteenth century. Granite was also considered as being a superior material for use in memorials due to the longevity of its finish. Whilst marble had been traditionally favoured, this was more susceptible to erosion in the British climate.[222] Harris reported in 1888 that the while the 'light greenish grey' stone on Haytor was used for steps and kerbs, it was worked 'principally for monumental purposes'.[223] An indication of the status to which Dartmoor granite was rising as a memorial stone is indicated by its use, in 1898, to construct a monument in Guernsey Cemetery, commemorating those lost in the sinking of the SS *Channel Queen* earlier that year.[224] That the designers of the publicly-funded memorial chose to employ Dartmoor stone rather than the renowned material of their own island, shows that while it may have played second-fiddle in terms of durability as a paving material, Dartmoor granite had become one of the top choices for memorial work.

The reputation of Dartmoor stone as a good medium for memorials evidently remained long past its use in Nelson's Column. In 1920 Sir Edwin Lutyens, one of Britain's most prominent architects, and designer of the Cenotaph, used Haytor stone for the Devon County War Memorial in Exeter. Hewn from a single block thirty feet in length, Haytor had been the only location where Lutyens could find a block of such proportions, and reflects the very specific, bespoke roles, for which this quarry was latterly used.[225] The extent to which enthusiasm for war memorials gripped the nation can be gauged from the fact that by late 1926, well over

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[221] Ibid. p. 36.
[222] *The Builder*, 23 December 1843, p. 557.
[223] Harris, *Granites and Our Granite Industries*, p. 38.
[224] *Jersey Independent*, 3 December 1898, p. 3.
[225] *Quarry Managers' Journal*, September 1920, pp. 57-61.

200 monuments had been erected in Devon alone.[226] Many local merchants took the opportunity to make use of the demand. J. T. Millin of Okehampton was a typical example, advertising war memorials 'executed in Celtic, Runic, and Maltese Designs in Dartmoor Granite, from £40 to £250.'[227] For example, the village of Goodleigh in North Devon, with a population of around 240, commissioned from Herbert Reed 'a rough hewn cross of Dartmoor granite… about 10 feet in height' for a cost of £85.[228] Reed's workshop was in Exeter and the city became something of a hub for monument builders and a number of merchants advertising memorial crosses made from Dartmoor granite. Although specific details on more run-of-the-mill memorials are sparse, an example is provided by the Newton Abbot firm of A. R. Knight, who in 1936 and 1937 supplied memorials for North Bovey church containing kerbing, pilasters and corner posts in 'Dartmoor Grey Granite', which were constructed and installed at a cost of just under £37 and £33.[229] [Approximately £2,070 and £1,780 in 2022 values.[230]]

The role of stone within a memorial was not just determined by its physical appearance. During discussions for a war memorial in Plymouth shortly after the First World War, it was felt that 'rough-hewn Dartmoor granite is the medium which well expresses the heart of Devon', the final monument being completed using stone from Haytor, the dormant quarries having to be specially reopened for the task.[231] Later, in 1934, during design work for a Plymouth memorial to commemorate the departure point of the *Mayflower*, concern was expressed over the proliferation of Portland stone within the city. According to the *Western Morning News*, 'the utilization of Portland stone is not in keeping with the Westcountry atmosphere', while another correspondent 'deplored the fact that Portland stone was to take

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[226] *Western Gazette*, 1 October 1926, p. 12.
[227] *Exeter and Plymouth Gazette*, 21 January 1921, p. 10.
[228] *North Devon Journal*, 17 March 1921, p. 2.
[229] DHC: 4110Z/25/20, Invoices from A.R. Knight to Miss Posworthy, 23 September 1936 and 30 September 1937.
[230] Bank of England Inflation Calculator, available at https://www.bankofengland.co.uk/monetary-policy/inflation/inflation-calculator, accessed 31 December 2022.
[231] *Western Morning News*, 8 October 1920, p. 8; *North Devon Journal*, 19 May 1921, p. 7.

the place of Dartmoor granite for such a memorial of the rugged grandeur of the pilgrim character.'[232] This was not a phenomenon peculiar to the 1930s. In 1875, having recently been appointed as a fellow of the Geological Society of London, Richard Nicholls Worth presented his views to the Devonshire Association. During a discussion on the role that geology played in the Devonshire economy, R. N. Worth argued that 'there is a special interest for us in the geology of Devon. We are what we are, in race, character, calling, and social position, mainly because of the geological peculiarities of this western land.'[233] Worth would become a name synonymous with the historical study of Dartmoor. In contrast to the hasty theorising which characterised previous archaeological study of the moor, Worth employed a scientific approach to the study of its history. Subsequently president of the Devonshire Association, in 1891 his son, Richard Hansford Worth, would also join, and become a prolific writer for the Association's Transactions.[234]

In 1920 the British Institute of Industrial Art had been formed, being one of a number of similar organisations that aimed to raise standards in British design as well as seeking to improve public taste.[235] During 1934 the Institute published a report on graveyard memorials, with the intention of promoting more traditional forms of design, together with a greater emphasis on employing British materials. The Institute provided a list of suitable British headstone materials, which included Dartmoor granite among their number. Although some stone was not recommended for use in smoky areas, Dartmoor's material benefited from no such disclaimer. Through championing the use of these materials, the Institute hoped that a new culture would be embraced, in which thoughtfulness of design was a continual process that started from when the rock was first hewn. The report's views clearly chimed with those of the Westcountry clergy. Since the 1840s imported marble had become increasingly

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[232] *Western Morning News*, 1 May 1934, p. 5.
[233] Worth, 'The Economic Geology', p. 210.
[234] Sidney Lee (ed.), *Dictionary of National Biography Vol. 63* (London: Smith & Elder, 1900) p. 38; R. H. Worth Obituary, *Reports and Transactions of the Devonshire Association*, Vol. 62 (1951), available at https://devonassoc.org.uk/person/worth-richard-hansford/#rhwobit, accessed 18 June 2020.
[235] Jonathan Woodham, *A Dictionary of Modern Design* (Oxford: Oxford University Press, 2004), available at https://www.oxfordreference.com/view/10.1093/oi/authority.20110803095528242, accessed 18 July 2019.

common for headstones and memorials, yet it did not, in the view of one correspondent from the 1930s, 'harmonize with the subdued tones of the English sky and natural surroundings', while it was also seen to suffer badly from the British climate and vegetation. Furthermore, through it being imported, the mason responsible for cutting the stone was no longer the same one who carved the inscription, this disconnect in design resulting in lettering which was 'small and mechanical in character,' while sculptured decoration was 'usually sickly in sentiment and feeble in execution'.[236] Local materials, such as Dartmoor granite, would therefore not only be more harmonious with their surroundings, but would also encourage a more fluid design-process.

During the inter-war period the contraction with which the industry had undergone only served to further hamper its survival. By 1934 it was felt that the factor working against using British stone was not so much its cost compared to foreign imports, but rather the greater difficulty and inconvenience in obtaining it, with an improvement in distribution being seen as key to developing the industry.[237] The memorial industry did benefit from some protection against foreign competition, with import duties on memorials being raised to thirty percent in 1936.[238] Nonetheless, by 1940 the *Western Morning News* was reporting that in recent years most stone for monumental work had been imported from Germany, Italy, Finland and Norway, and although the outbreak of hostilities in 1939 understandably disrupted the supply of imported stone, this did not mean that the home industry would enjoy a significant reprieve. Messrs J. Geach and Sons, monumental masons in Plymouth, reported in 1941 that very little new work was being done, and that which was produced used either Cornish or Scottish stone, whilst 'practically no Dartmoor granite is used for monumental work. In fact, little of the Dartmoor granite is now being worked, and it is of bad colour.' The broader issue of a downturn in monumental work was attributed to 'war conditions and the fact that cemeteries are not sacred to the Nazi raiders', while the restriction in materials available was

[236] *Western Morning News*, 31 October 1934, p. 3.
[237] Ibid.
[238] *Quarry Managers' Journal*, October 1936, p. 233.

considered a further deterrent.[239] In terms of local memorials, it is notable that following the Second World War, there was not the same level of memorial construction as had occurred after 1918, instead existing memorials were often amended to include the relevant names and dates of the more recent conflict. Furthermore, the post-war period, with its emphasis on reconstruction, saw increased antipathy towards stone memorials, a Mass Observation Bulletin for November 1944 recording that ‘practically no one wanted costly erections in stone’, instead ‘most people wanted a memorial which would be useful or give pleasure to those who outlive the war’, with one individual commenting that they desired ‘anything useful, but spare us grey stone memorials’.[240] As a result, unlike the situation twenty five years earlier, the end of hostilities in 1945 did not provide the granite memorial industry with the resurgence that might otherwise have been expected.

When the Plymouth & Dartmoor Railway was first conceived, it was envisaged that granite would be just one of several exports, including peat and flax, to make use of the line. The failure of Tyrwhitt’s agricultural ambitions left the granite quarries as the only large-scale industry to develop from his original scheme of improvement. But here, in this industry, success *can* be seen. The moor’s granite industry went through many phases, during which time the stone was valued for its physical, aesthetic and cultural properties. The industry reflected wider contemporary themes, and not only responded to different pressures and markets, but also shaped them. The granite quarries provided the Plymouth & Dartmoor Railway with a steady supply of traffic, allowing it to survive after the failure of Tyrwhitt’s wider ambition. The following chapter will look at the history of the railway, from the pioneering days of its construction in the 1820s, up to its final days as a state-owned transport link in the post-Second World War era.

[239] *Western Morning News*, 21 February 1941, p. 1.
[240] Lambert, 'A Living Monument’, p. 51.

Chapter Two

A Line of Improvement?

Building and Rebuilding the Railway to Princetown

‘Through the rock of ages, hills abrupt, and caverns deep, The Railway leads its mazy track.’

Nicholas Carrington, *Dartmoor a Descriptive Poem*, 1826

Conceived by Sir Thomas Tyrwhitt primarily as an agricultural line to enable improvement of the moor, the Plymouth & Dartmoor Railway intended to buck the trend of the other South West railways, all of which had been constructed to carry minerals. For the P&DR, mineral traffic was to be but one element of a wider trade. In the event however, the P&DR did not reverse this trend. Instead, following the failure of large-scale cultivation to materialise, the railway became indelibly linked with the moor’s granite industry. But although it followed in the tradition of South West mineral lines, Tyrwhitt’s railway stands out as a technological paradox. For the inhabitants of the area, the arrival of the line represented the dawn of a new age, yet when set against broader developments in railway engineering, the tramway represented the end of an era. Completed in 1826, the Plymouth and Dartmoor Railway would go down in history as one of the last great horse drawn systems to emerge before the dawn of the steam age, with railways between Stockton and Darlington (1825) and Liverpool and Manchester (1830) decisively marking the start of the modern network.[1] A modern railway has been defined as one which is a ‘publicly controlled means of transport possessing the four distinctive features of a specialised track, mechanical traction, the

[1] Bertram Baxter, *Stone Blocks and Iron Rails* (London: David & Charles, 1966) p. 32.

accommodation of public traffic and the conveyance of passengers.'[2] Within the context of such a framework, the line to Princetown would remain an 'early' railway for many decades. An anachronistic relic of the pre-steam era, it would not be modernised until long after many of its contemporaries had either been rebuilt or fallen by the wayside. This raises the question of why the line remained in such a primitive state for so long, as well as the reasons and timing behind its rebuilding in the 1880s as a modern railway. The previous chapter has shown how the granite market had all but disappeared by the outbreak of the Second World War. The line managed to outlive the quarries by several years, despite them having initially been its main source of support. To what extent was the railway repurposed to enable this survival? Ultimately by the mid-1950s the line was deemed uneconomical, yet even here it bucked the trend of the traditional railway narrative. With the last train running in 1956, its closure preceded the mass culling of non-profitable lines under Richard Beeching by several years. This naturally raises questions as to why the line closed when it did. In addition to these questions, who benefited from its different incarnations?

To sum up, the railway fully opened in 1826, was rebuilt for steam traction in 1883, and closed in 1956. The line represents an anomaly in the wider narrative of railway history, remaining in a primitive form for an extended period, failing to make it to the Beeching era, and yet not closing until twenty years after the demise of its staple industry. In order to examine the history of the line, this chapter will be split into two main sections. The first half will look at the events surrounding the construction, both of the original tramway, and of the rebuilt steam-powered line. Beginning with the Plymouth and Dartmoor Railway, it will be shown how its early status as a tramway belied its scale, and in addition to exploring the social connections which were both utilised and created by the new line, this chapter will also examine the physical and financial challenges faced by the railway promotors, and the impact they had on the subsequent development of the railway. Following this, the events surrounding the line's rebuilding will be explored. This did not occur until the late 1870s,

[2] Phillip Bagwell, *The Transport Revolution 1770-1985* (London: Routledge, 1988) p. 76.

placing it firmly outside of the traditional narratives of 'railway mania'. In exploring the various reasons behind this delay, it will be shown how the Princetown Railway became the pawn of a larger railway company, as it attempted to secure its regional monopoly and protect its territory from existing and future competition.

Throughout its long history the line to Princetown was subject to tensions regarding its social role. The second half of this chapter will therefore look at the questions of ownership and accountability. After the formation of the Plymouth and Dartmoor Railway in 1819, the line underwent three further changes of ownership before final closure in 1956. Conceived as an initiative for the locality, the line re-emerged in 1883 as the Princetown Railway, retaining some local influence but under the management of a wider organisation. In 1922 it became fully integrated into the Great Western Railway, a large centrally controlled private company, while the railway's final phase saw it pass into public ownership as British Railways, following railway nationalisation in 1948. These four stages in the evolution of the line will be explored in turn, examining who the line existed for, who it benefited, and the circumstances behind the changes of ownership.

Rails to Princetown: Creating the Plymouth & Dartmoor Railway

Sir Thomas Tyrwhitt's plan to facilitate improvement of the moor through the building of a railway was first announced in a speech given by him to the Plymouth Chamber of Commerce in November 1818. Tyrwhitt declared that by building a double-track railway from Plymouth Harbour to the prisoner of war depot at Princetown, it would be possible 'to reclaim and clothe with grain and grasses a spacious tract of land, now lying barren, desolate, and neglected; to fill this unoccupied region with an industrious and hardy population', the results of which would provide employment for the poor and 'alleviate the pressure of parochial

burdens.'[3] His speech, together with further details of the plan were subsequently published in London, while a single-page prospectus was concurrently published in Plymouth by the line's engineer. The novel nature of the system, as well as the terminology that had emerged with it, was plainly evident, Tyrwhitt explicating that the new endeavour 'involves the formation of what is called a RAIL or TRAM ROAD'.[4] Although the company would officially take the title of 'railway', until the line's rebuilding in the late 1870s it was often referred to as a tramway. With these plans, Tyrwhitt envisioned the line as realising the economic potential of Dartmoor's geology. How did the company go about attempting to realise this potential?

A committee was established to deal with the day-to-day management of the new line. Despite the project being the brainchild of Tyrwhitt, he only periodically assumed the position of chair. In the early days this role was usually assumed by Edmund Lockyer, a Plymouth landowner who had recently been promoted to the rank of Major in the army. The experience gained by Lockyer in this attempt at reclaiming Dartmoor did not go un-noticed by his military peers, who subsequently put his abilities to use on a much grander scale. The events which followed his departure from the P&DR indicate why Lockyer originally became interested in the Dartmoor scheme. Military service saw him leave for Australia in 1825, where he was initially sent on an exploratory mission to document the land, animal and mineral resources, an experience which would have echoed the surveying work of the P&DR. He was subsequently chosen to lead an expedition into Western Australia with the aim of establishing a settlement following fears of French colonisation. Having done so, Lockyer sold his military commission in 1827, and permanently settled in

Edmund Lockyer c.1854-60.
State Library of New South Wales

[3] Tyrwhitt, *Formation of a Railroad*, p. 4.
[4] Ibid.

Australia where he formed his own estate, the success of which can be gauged by a more recent appraisal, which remarked that he was 'easily imposed upon and dabbled in too many things to be a good farmer.'[5] Despite his shortcomings as an agriculturalist, Lockyer's contribution to the colonialization of Australia is still recognised as significant. That he was selected for this duty underscores the prominence with which his initial exploits on Dartmoor were viewed.

Two other notable players during the formation of the company were Sir William Elford and his son Jonathon. The Elfords were of an eminent and long-established West Country family. Sir William had previously been a Tory MP for Plymouth, having been defeated at the 1806 election by Tyrwhitt. His political career had not been without controversy, and in the years prior to his involvement with the P&DR his priority was to secure the future of his son. As a key figure in Plymouth's slavery abolition movement, the moralising aspect of Dartmoor's cultivation no doubt appealed to Sir William; however it was his partnership in the Plymouth Bank which cemented his involvement with the P&DR.[6] The other key influence in the P&DR's development was the Lopes family, who owned a significant proportion of the parish of Walkhampton, which lies immediately to the south of Princetown. While the family would long hold a long-lasting influence over the railway to Princetown, in comparison to the Elford dynasty, their involvement in Devonshire matters was a much more recent phenomenon. Of Portuguese-Jewish origin, the family had made their fortune from a Jamaican sugar plantation, subsequently taking up residence in Britain during the middle of the eighteenth century. In 1796 the family's wealth was inherited by Mannaseh Masseh Lopes, who promptly set about trying to assimilate himself into the British aristocracy, and in 1798 used his new-found affluence to purchase the Walkhampton estate. An 'infamous electoral

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[5] 'Lockyer, Edmund (1784–1860)', in Douglass Pike, (ed.), *Australian Dictionary of Biography, Volume 2* (Melbourne: Melbourne University Press, 1967), available at Australian Dictionary of Biography http://adb.anu.edu.au/biography/lockyer-edmund-2366/text3103, accessed 2 May 2020.

[6] 'Elford, William (1749-1837), of Bickham, Devon', in *The History of Parliament: The House of Commons 1790-1820*, R.G. Thorne, (ed.), (London: Secker and Warburg, 1986), available at The History of Parliament https://www.historyofparliamentonline.org/volume/1790-1820/member/elford-william-1749-1837, accessed 2 May 2020; Kelly, *Quartz and Feldspar*, pp. 114-117.

adventurer', Lopes used his financial position to buy influence in a succession of parliamentary boroughs, in which only a handful of eligible voters existed. Notably, in 1810 he paid £75,000 to buy control of the borough of Westbury, giving him the power to name both of the borough's MPs.[7] Through his financial influence, Lopes was able to secure a series of seats in Parliament. However, despite sitting in Parliament, and receiving a baronetcy, his background as a foreign Jew prevented him from securing full acceptance by the political establishment. Furthermore, his participation in blatant electoral fraud further damaged his reputation, leading to a jail sentence. His Parliamentary biography forthrightly relates how he was 'much ridiculed as the caricature of a corrupt boroughmonger, whose miserliness and naivety led to the frustration of his better intentions and the destruction of his electoral ambitions.'[8] Lopes' imprisonment in November 1819 coincided with the formation of the P&DR, and upon his release in September 1820, the new railway provided a focal point from which to regain credibility. At a time when industrialisation was seen as a positive facet of Englishness, Lopes' involvement in the new railway would have provided not only an opportunity to increase the value of his land, but also strengthen his political and regional reputation, further aiding his legitimacy as a British subject.

While the railway had obtained the backing of influential locals, the projected cost of the line, standing at £45,000, meant that securing wider investment was a priority. Tyrwhitt's prospectus attempted to whip up financial enthusiasm for the scheme, by framing it as both a social and financial investment. A large proportion of the prospectus focused on the various commodities which would be imported and exported to the moor. The expected development of the Princetown settlement would underpin the import business, with traffic

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[7] 'Westbury', in *The History of Parliament: The House of Commons 1820-1832*, David Fisher, (ed.), (Cambridge, Cambridge University Press, 2009), available at The History of Parliament https://www.historyofparliamentonline.org/volume/1820-1832/constituencies/westbury, accessed 19 September 2022.

[8] *The Gentleman's Magazine*, Vol. 101, No.1 (1831) p. 465; 'Masseh Lopes (formerly Lopes), Sir Manasseh, 1st bt. (1755-1831), of Maristow House, Devon', in *The History of Parliament: The House of Commons 1820-1832*, David Fisher, (ed.), (Cambridge, Cambridge University Press, 2009), available at The History of Parliament http://www.histparl.ac.uk/volume/1820-1832/member/masseh-lopes-sir-manasseh-1755-1831, accessed 18 May 2020.

set to include 'lime, sea sand, timber, slate, tiles, laths, coal, culm, groceries, wine, spirits, beer, porter, pottery, glass, furniture etc'.[9] In addition to granite, exports were chiefly expected to consist of peat and flax. At this stage none of these industries existed on the moor except in embryonic form. Despite the site of the proposed terminus being very close to the prisoner of war depot, the dormant facility was only briefly mentioned in Tyrwhitt's prospectus, being earmarked as a potential source of traffic in the event of the government reopening it as a convict prison. The question of a permanent role for the prison would be a source of debate for many years, various schemes being proposed.[10] While the prospectus did expound the moralising benefits of a railway, the particular focus on the transfer of material goods shows that Tyrwhitt was looking to merchant investors as one of the main sources of funding. This was also reflected in the share price. The P&DR advertised its shares at £25 each; while this would have excluded less wealthy local inhabitants from investing, it did provide for greater inclusion than had been the case with previous comparable engineering projects. Canal shares had generally been of large denominations, typically consisting of units of £200, and rarely being less than £50, with a consequent limiting of investment to the wealthier classes.[11] Tyrwhitt's scheme therefore sought out the smaller investor rather than the wealthy philanthropist. The promotors did not just appeal to the immediate community, a letter of the 12 February 1819 from R. Eales of Exeter to the railway's engineer, discussed the difficulties in attracting subscribers from that city, while as shall be seen later, concerns over Tyrwhitt's connections revealed that a notable level of investment came from London.[12]

Although the company looked to a broad geographical area for financial investment, when it came to resourcing the engineering expertise needed to construct the line, a more local

[9] Tyrwhitt, *Formation of a Railroad*, p. 28.
[10] Kelly, *Quartz and Feldspar* pp. 157-165.
[11] Bagwell, *The Transport Revolution*, p. 6.
[12] Peter Northover, 'Buying Iron – The Case of the Plymouth and Dartmoor Railway', in David Gwyn (ed.), *Early Railways 5* (Clare: Six Martlets, 2014) p. 143.
TNA: RAIL 566/1, P&DR Committee Meeting, 1 August 1822.

approach was adopted. In doing so, the promotors completely failed to appreciate the scope of work involved in railway construction, and in doing so set up Tyrwhitt's grand improvement scheme for failure. Despite the fame of the Stephensons, they were not the first to construct railways; digging cuttings, building embankments and creating bridges and tunnels were already well-developed trades. There had already been several earlier railways in the west of England, including the Tavistock Canal Tramroad (1803) and Cornwall's Poldice Tramway (1809), although these were not on the same scale as the Plymouth & Dartmoor.[13] Elsewhere in Britain numerous other lines had emerged, so that by the time the P&DR was built, substantial experience had been gained in the construction of railways, leading to the emergence of a number of prominent railway engineers. Yet rather than draw on this wide body of expertise, priority was instead given to maintaining local allegiances and forging new business connections. The route was surveyed by William Shillibeer, who, beside his formal occupation as headmaster of Walkhampton school, also worked as part-time surveyor to Masseh Lopes.[14] In 1818 he was criticised by the charity commissioners for neglecting his duties as schoolmaster after he illegally appointed a deputy to cover his absence while he surveyed the route.[15]

A more consequential attempt at social networking would result from the appointment of William Stuart as architect for the line's construction. A Scottish engineer, since 1811 Stuart had been superintendent of the Plymouth Breakwater, having permanently relocated to the area for the role. He had gained this position after becoming acquainted with the breakwater's engineer, John Rennie, while working as superintendent on the construction of Rennie's harbour piers in Fraserburgh.[16] While Stuart had a background in dock and public building construction, together with involvement in canals, he had no previous experience in railway building. However, at the time of Stuart's appointment to the P&DR, John Rennie

[13] Richard Hansford Worth, 'Early Western Railroads', *Transactions of the Plymouth Institution and Devon and Cornwall Natural History Society* Vol. 10, No. 1 (1888) pp. 79, 81.
[14] Anthony Kingdom, *The Princetown Branch,* (Oxford: OPC, 1979) p. 59.
[15] Northover, 'Buying Iron', p. 142.
[16] *Minutes of the Proceedings of the Institution of Civil Engineers*, Vol. 14 (1855) p. 138.

was engaged in designing the new London Bridge. Stuart therefore provided the P&DR and its associates with an ideal contact through which they could promote their granite for use in Rennie's work. This connection with Rennie was further strengthened through the appointment, under Stuart's guidance, of Hugh McIntosh as contractor.[17] Another fellow Scot, McIntosh had become associated with Rennie through canal work, and more recently had been responsible for carrying out much of Rennie's dock building work in London.[18]

The connection between Tyrwhitt and Stuart likely emerged during the formative stages of the scheme, Tyrwhitt's prospectus using an example of a Scottish railway company – which had allegedly returned a dividend of 18% – as a means of enticing investors. This assertion was, however, unfounded; in 1817 the Kilmarnock & Troon Railway, Scotland's main railway during this period, only paid a dividend of 5%.[19] This optimistic outlook was characteristic of the company's financial attitude; however it did not reflect the wider financial situation. While the Stockton & Darlington Railway famously opened in 1825 as the world's first public steam railway, behind the scenes it had struggled to begin construction, after the bank failures of 1815 together with a post-war recession dampened enthusiasm for investment. The financial system suffered a further shock during the switch from wartime to peacetime finance in 1821.[20] This financial uncertainty would see the P&DR similarly affected. By the end of March 1819 there were sixty-eight subscribers, accounting for 432 shares. Concerns over the slow uptake and cost of work led to a scaling back of the project, with a revised estimate being agreed in June 1819 for a single line of track costing £27,783.[21] By late April 1820 the company had 556 subscribers providing a capital of £27,800; however unexpected costs led to the company successfully applying to the Exchequer Bill Loan Commission for £18,000.[22]

[17] TNA: RAIL 566/1, P&DR Committee Meeting, 3 June 1820.
[18] Cross-Rudkin, *John Rennie*, p. 50.
[19] Northover, 'Buying Iron', p. 141.
[20] Winifred Stokes, 'Early Railways and Regional Identity', in Andy Guy and Jim Rees (eds.), *Early Railways* (London: Newcomen Society, 2001) p. 313; Larry Neal, 'The Financial Crisis of 1825 and the Restructuring of the British Financial System', *Federal Reserve Bank of St. Louis Review* Vol. 80, No. 3 (1998) p. 54.
[21] TNA: RAIL 566/1, P&DR Committee Meeting, 8 June 1819.
[22] TNA: RAIL 566/1, P&DR Committee meetings, 22 April and 17 July 1820.

The lack of investors was not the only source of financial concern. Stuart's inexperience in railway construction led to a significant underestimation of the costs. In 1801 the Aberdare canal company had estimated a cost of £1,500 per mile for a tramway. Fifteen years later the Hay Railway opened after construction costs had averaged £2,700 per mile, while in 1826 Thomas Telford quoted around £2,500 per mile for railway construction.[23] In comparison, Stuart had originally estimated that the P&DR's double line of track could be constructed at an average of less than £2,000 per mile.[24] Echoing the prospectus' focus on physical materials, the estimated costs for construction were heavily weighted towards the purchase of hardware, with the cost of track materials, standing at £38,178, representing nearly 85% of the projected cost of construction for the whole line. In comparison, only £900 was allocated for the purchase of land, totalling just 2% of the projected budget.[25] This failure to grasp the significance of land value was perhaps born out of a hope that local landowners would be charitable to the project's aims. Unfortunately, while the route across the moor was largely laid out on land which was either unenclosed or belonging to sympathetic landowners, to the south of the moor the situation was different. Any hopes of a cheap deal were soon dashed, as landowners awakened to the potential to profit from the sudden demand for their property. In Egg Buckland, an offer was made for twenty years purchase on up to three acres of Thomas Briggs' land. With an offer of fifty-five shillings per acre, the maximum that Briggs' could have received would have been £8. 3s. Briggs pressed the railway company into having the land independently valued, which was subsequently undertaken by Mr Taperell, a Plymouth land surveyor. The result saw the P&DR having to pay Briggs £267. 12s. 8d.[26] Also lying to the south of the moor was an important piece of land belonging to Addis Archer. This land, and its owner, would provide an almost unending source of strife for the P&DR. At a committee meeting on 10 June 1820, it was reported that Mr Wood and Henry Willis had visited Archer and offered him £540 for nine acres of land at

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[23] Baxter, *Stone Blocks,* p. 73.
[24] TNA: RAIL 566/1, Prospectus of the Plymouth and Dartmoor Rail Road, January 1819.
[25] Northover, 'Buying Iron', p. 143.
[26] TNA: RAIL 566/1, P&DR Committee Meetings 29 May, 3 June and 17 July 1820.

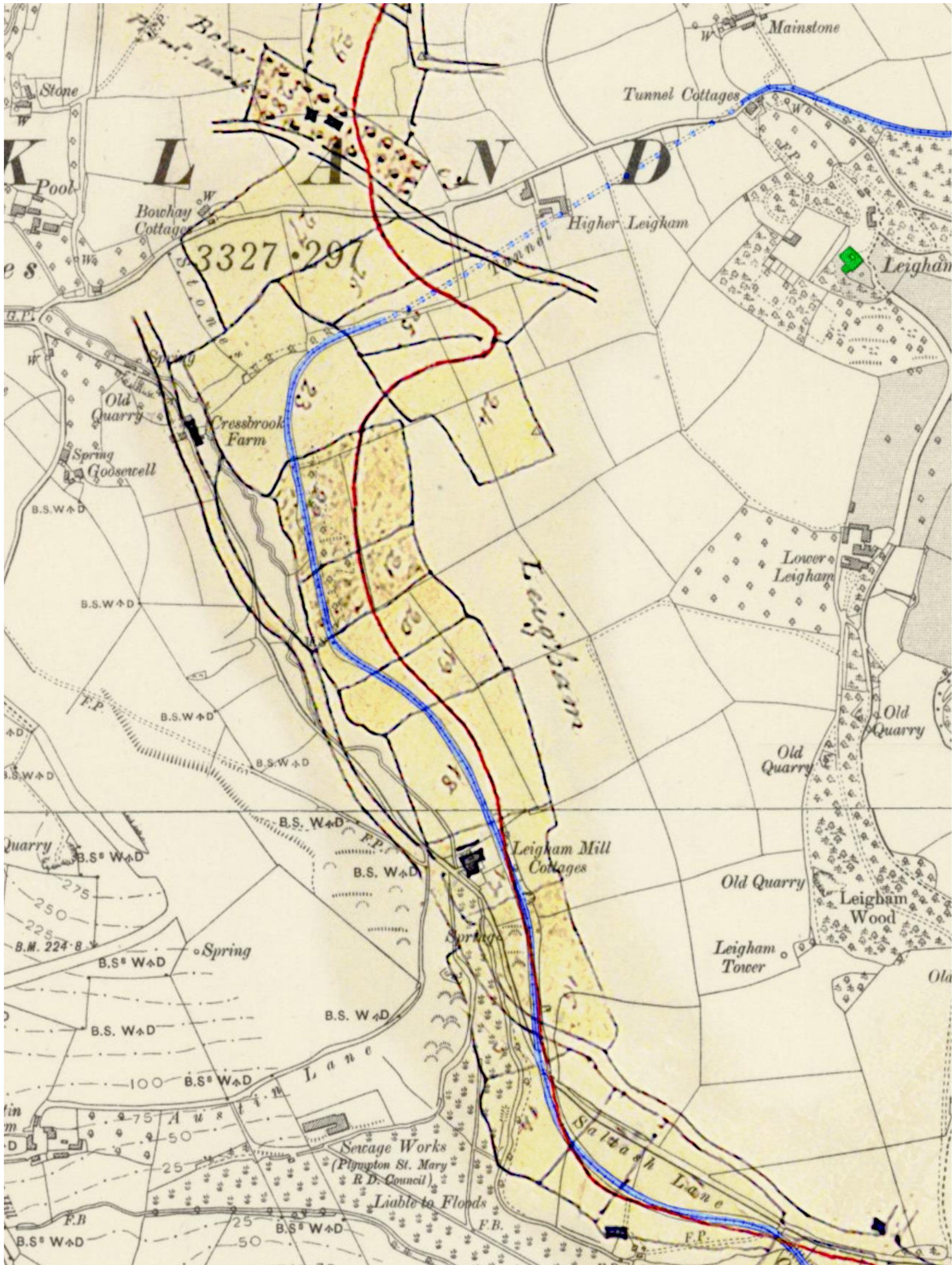
Shallaford, an offer to which Archer 'refused and stated he treated it with contempt.' The scale of their misjudgement was apparent at a meeting sixteen days later, when it was reported that the committee had agreed to enter negotiations with Archer for a purchase price of around £2,100, almost four times the original estimate.[27] Such was the financial strain placed on the company, that nearly a year later Archer began taking action against them, in order to recover the balance of payment still due to him.[28]

Archer's land would expose the weakness of the company's inward-looking form of recruitment. As engineer, it had been Stuart's intention to build an embankment on Archer's land, and in December 1820 Stuart reported to the committee that by raising the embankment still further, the gradient of the line could be eased from twenty-two inches per chain, to eighteen.[29] To those unaccustomed to railway engineering, this change would have seemed inconsequential. Both gradients were, however, extremely steep, the reduction still resulting in a gradient of 1 in 44, producing a line which was unsuitable not only for the horses which had to work up it, but also for controlling the descent of loaded granite waggons. Before long questions began to be raised over the suitability of Stuart's decisions, while concerns were also expressed that the engineer had been deviating from the route as marked out by the Act of Parliament.[30] Stuart suffered a fall from grace; in March it was resolved to appoint under him an engineer who was 'practically acquainted with railways', while in May the committee refused his requests to be paid.[31] Stuart's 'assistant', West Country mining engineer Roger Hopkins, was asked to produce a survey of the existing line, with Jonathon Elford, chairman of the P&DR committee writing to Stuart that 'as soon as Mr Hopkins has taken the necessary measures with regard to the line to be abandoned and that to be adopted, you will hear further from the committee.'[32] It was clear where the committee

[27] TNA: RAIL 566/1, P&DR Committee Meetings, 10 June and 26 June 1820.
[28] TNA: RAIL 566/1, P&DR Committee Meeting, 14 May 1821.
[29] TNA: RAIL 566/1, P&DR Committee Meeting, 26 December 1820.
[30] TNA: RAIL 566/1, P&DR Committee Meeting, 12 February 1821.
[31] TNA: RAIL 566/1, P&DR Committee Meetings, 26 March and 29 May 1821.
[32] TNA: RAIL 566/1, Jonathan Elford to William Stuart, 2 July 1821.

laid the blame, Elford adding ‘I am only desired to add that they hold you responsible for the expenses incurred by your want of competent skill.’[33] The personal and business connections which had led to the company’s early appointments were now cast aside; the committee feeling that ‘it is their duty in managing the concerns of a large body of proprietors to sacrifice to a certain degree their feelings as individuals’.[34] Stuart certainly felt that personal feelings had been cast aside, responding to Elford that ‘the insinuations in your letter of the 2nd instant were so unintelligible to me and at the same time so injurious to my character and offensive to my feelings as to have deprived me of the power of immediately acknowledging its receipt in terms consistent with the respect due to yourself’.[35] This error of judgment, and the disruption caused in rectifying it was evidently noticed far further afield than simply Plymouth itself. Writing over twenty years later, *The Builder* lamented how the episode had been ‘such an instance of engineering blundering, as fortunately for the credit of our country is rarely witnessed among Englishmen.’ The editor of *The Builder* noted that the place at which this blundering had occurred had since become known as ‘Stewart’s Folly.’[36]

[33] Ibid.
[34] Ibid.
[35] TNA: RAIL 566/1, William Stuart to Jonathan Elford, 20 July 1821.
[36] *The Builder*, 23 December 1843, p. 558.



The site of 'Stewart's Folly'. William Shillibeer's 1818 survey overlayed on the 1907 Ordnance Survey six-inch map. The proposed route is red, while the line constructed has been coloured blue. Addis Archer's residence is shaded green. Shillibeer's survey has been scaled using Leigham Mill and Cressbrook Farm as reference points. The terrain here is hilly, and difficulties in surveying have clearly impacted the accuracy of Shillibeer's map. Despite the inaccuracies, it can clearly be seen how the proposed railway took a completely different course to the one eventually built.
Devon Heritage Centre QS/DP/37

This episode would see the offending sections of line abandoned and replaced by a tunnel, a major undertaking at the time, but the only means by which the route as planned could be completed. After all the tribulations experienced in acquiring Archer's land, the section containing the abandoned line now had to be returned to him. This fiasco also saw the departure of both Stuart and the contractor McIntosh. Stuart had been given 'an opportunity of withdrawing from the concerns of the company' in order to avoid the committee being 'painfully driven' to take legal action, but after refusing to do so he was dismissed.[37] The arbitration which followed saw McIntosh making 'complaint that the investigations… have tended to cast reflections on his character', before he too departed.[38] This episode heaped even further financial pressure on the company. In addition to the cost of constructing a new railway formation and tunnel, and the expenses of arbitration and servicing the Exchequer loan, the railway also found itself under fire from landowners whose land had been damaged by the construction. In October 1821 three pounds was paid to Mr Hodge 'for damages to his land on the abandoned line', while Mr Hill of Fursdon estate was paid thirty pounds compensation to cover the expense of returning the soil to his property.[39] At the same time Addis Archer also attempted to gain compensation for damages to his land, while it was also reported by the committee that he was 'dissatisfied with the non erection of fences.'[40]

The poor timing of the P&DR, which had plagued the initial call for investment, also impacted one of the company's fundamental engineering decisions. Despite Stuart's original emphasis on constructional materials, the design of track for the new railway fell through a technological gap. For material to supply the 140,800 stone blocks required to support the rails, the P&DR was able to make use of the abundance of granite already on the moor. But for the rails themselves the company needed to call on the wider British industry. Early railways had used rails made from wood, which although a readily available material, was

[37] TNA: RAIL 566/1, P&DR Committee Meetings 24 September and 8 October 1821.
[38] TNA: RAIL 566/1, P&DR Committee Meeting 30 July 1821
[39] TNA: RAIL 566/1, P&DR Committee Meetings 8 and 22 October 1821.
[40] TNA: RAIL 566/1, P&DR Committee Meeting, 10 December 1821.

susceptible to wear and required regular replacement, sometimes after as little as twelve months. The second half of the eighteenth century witnessed several improvements in the method of manufacturing iron, allowing it to become a viable alternative to wood. Initially wooden rails were retained, and an iron plate fitted on top to reduce wear. From the 1790s however, rails made entirely of cast iron began to appear. The spread of iron rails was aided by the Napoleonic wars, which saw an increasing demand for timber come up against difficulties in importing it from abroad, leading to an upsurge in iron production.[41] As well as being more durable than wood, iron rails provided a more efficient means of working due to their lower frictional resistance. Here too the presence of the Napoleonic Wars was felt, as the high price of oats and hay further stimulated the move away from wooden rails, due to the need to maximise the economies of horse operation.[42] By the time of the P&DR therefore, iron rails were well established. However, prior to John Birkinshaw's 1820 patent for wrought iron rails, cast iron had been the only realistic option for metal trackwork, and it was this material which was selected for the new railway.[43] The brittle nature of cast iron limited the weight of vehicles which could be carried, with the P&DR officially stipulating that no more than three tons could be carried in one waggon. In February 1824 the line's own contractor, Johnson & Brice, was 'requested to adhere strictly to the bye laws' after they had been found transporting 'four tons upon one carriage,' a situation which had led to the breaking of various rails.[44] With the introduction of Birkinshaw's process, wrought iron quickly became the standard for new railways, the sixteen-mile Stratford and Moreton Tramway, authorised in 1821, marking the start of wrought iron railway construction. The P&DR, on the other hand, found itself marking the end of

A surviving length of P&DR rail at Yelverton. *Author*

[41] Bagwell, *The Transport Revolution*, p. 77.
[42] Ibid.
[43] Northover, 'Buying Iron', p. 148.
[44] TNA: RAIL 566/1, P&DR Committee Meeting 7 February 1824.

the cast iron phase of railway track, a situation which would have repercussions when it came to modernising the line.

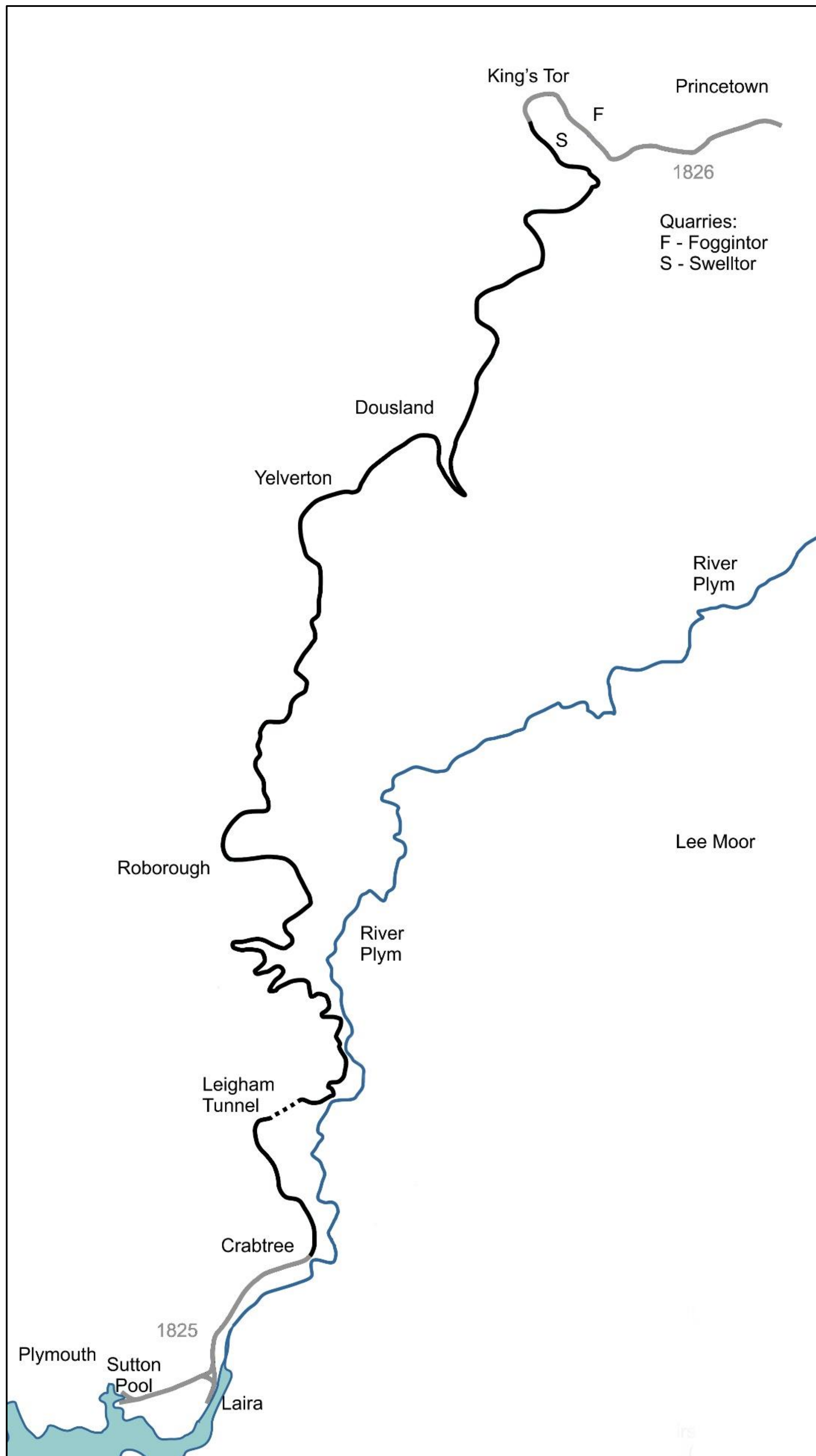
Supplying rails for twenty-three miles of railway represented a very significant contract for the iron industry, and numerous foundries tendered for the job. This wider interest in the developments on Dartmoor witnessed external attempts at shaping the design of the new railway. A surviving tender for rails from the Aberdare Iron Company includes a letter from engineer Benjamin Thompson, who successfully urged the use of edge rails and flanged wheels, rather than a plateway. Thompson had been responsible for the Fawdon Waggonway near Newcastle, which used a gauge of 4' 6", and was the likely influence behind this choice of gauge for the P&DR.[45] The final contract for supplying rails was awarded to the London firm of William Bailey. The P&DR actually began issuing orders to Baileys before a formal contract had been signed; at a committee meeting on 1 January 1821 it was reported that an invoice had been received from Baileys for £4,443 1s 6d, which would be paid 'as soon as the contract, according to the original terms, is signed'. This was despite the order having been placed the previous May. By late 1821 large sums of money were owed to Baileys.[46]

With the departure of the original contractor following the debacle with William Stuart, the London firm of Johnson & Brice, who had recently begun quarrying granite on the moor, seized the opportunity to move in as their replacement. As will be seen later in the chapter, Johnson Brothers' involvement marked a significant shift in the ethics of the scheme. Such was their desire to extract granite from the moor that they undertook the work to extend and finish the line considerably in advance of payment, with Johnsons' 'great zeal and unparalleled generosity' resulting in the line being officially opened on 26 September 1823.[47] Despite this official opening, one of the key objectives of the railway still lay out of reach.

[45] Northover, 'Buying Iron', p. 148.
[46] TNA: RAIL 566/1, P&DR Committee Meeting, 8 January 1822.
[47] TNA: RAIL 566/1, P&DR General Meeting, 2 July 1822; Kendall, *The Plymouth & Dartmoor Railway*, p. 34.

Having achieved their goal of connecting the Dartmoor granite quarries to Plymouth, Johnson Brothers were no longer willing to continue working on credit, and almost three years after the line opened it was reported that the last 500 yards to Princetown were still waiting to be laid. To fund this last section, the P&DR committee proposed to sell off the company's wastelands, together with their land at Shallaford which had previously belonged to Addis Archer.[48] Although the company had previously attempted to return the land back to Archer, he had passed away in July 1822 before this could be achieved.[49] The chaotic nature of the company's affairs can be gauged by the fact that a year and a half after his death, Archer was listed as actually owing the railway £181 8s. 10d., which the company was in the process of trying to recover.[50] At the same time, Edmund Lockyer had become embroiled in the situation. Having been the company's negotiator with Archer during the time of the Stuart debacle, Lockyer had come into the possession of Archer's deeds. Unfortunately for the railway, by the time of the renewed attempt at selling the land, Lockyer had departed for Australia, and in addition to the deeds, was also holding company money, given to him to pay Archer for another land transaction. By this time, the railway's original intention of improvement for the common good had been well and truly eroded by concerns for finance and property rights, and when contacted over the matter, Lockyer refused to surrender the deeds.[51] Despite these setbacks, the final section of line to Princetown would eventually be opened in December 1826.[52]

[48] TNA: RAIL 566/1, P&DR Committee Meeting July 3 1826.
[49] Daniel Lysons and Samuel Lysons, *Magna Britannia: Volume 6, Devonshire* (London: T. Cadell and W. Davies, 1822) pp. 81, 616.
[50] TNA: RAIL 566/1, P&DR Committee Meeting, 3 January 1824.
[51] TNA: RAIL 566/1, P&DR Committee Meetings 26 October 1826, 2 January 1827.
[52] Kendall, The Plymouth & Dartmoor Railway p. 49.



The P&DR in 1826. The line which opened in 1823 is black, while later extensions are grey. It can be seen how, when first opened, the railway stopped short of Princetown.
Wikipedia Commons

New Railway, New Aims

The P&DR's financial situation enabled Johnson Bros. to assume control of the railway for their own needs, creating a barrier to further development of the moor. The firm's granite works at Foggintor effectively marked the terminus of the line, the company having no quarries further to the north. As a result, the section from Foggintor to Princetown, being of no use to the firm, fell into a state of disrepair. At a meeting of local entrepreneurs at Princetown in May 1846, it was resolved to lobby the P&DR to reopen the line to Princetown, with the local press reporting that those present 'anxiously look to, and require the replacing of the rails from the Granite Works to Prince Town, a distance of a mile and a half.' It was estimated that between 4000 and 5000 tons of goods would be generated by the reopening, provided the tolls charged did not exceed double that for the current open section.[53] Eight years later however, Henry Tanner, in *The Cultivation of Dartmoor*, noted that 'the entire length not having been used of late years, the iron rails have been removed from the last two miles.'[54] After the 1840s the line largely disappeared from the national consciousness, the proliferation of new railways rendering it inconsequential. Local newspapers rarely reported on its activities, and the line became something of an enigma even to the local population. Such was the elusive nature of the railway's operations that in 1866 an advert appeared in the *Exeter and Plymouth Gazette* with a request for 'any information' on the railway 'which is now used by the Foggin Tor Granite Company'.[55] Even the company's minute book fell silent after 1851, no activity being reported until 1865.

Despite this, the railway and quarries were still a going concern. Crossing claimed that throughout this period granite was being despatched daily, while it is recorded that in 1857, over 4,500 tons was carried by the line, with a similar amount the following year.[56] In August

[53] *Royal Cornwall Gazette*, 8 May 1846, p. 3.
[54] Henry Tanner, *The Cultivation of Dartmoor* (London: Longman, Brown & Green, 1854) p. 40.
[55] *Exeter and Plymouth Gazette*, 7 December 1866, p. 1.
[56] Crossing, *Dartmoor Worker*, p. 74; Stanier, *South West Granite*, p. 195.

1853 George Giles, agent to the Lopes family, wrote to F.W. Filmer of Johnson Bros., complaining of a spate of recent trespasses by the company's men. To avoid a circuitous section of route, the waggoners responsible for running the trains had been detaching their horses at Roborough, taking a shortcut to Woolwell, and then re-joining the train, which had been able to continue under gravity. In doing so, the men and horses had been using Sir Ralph Lopes' own private road, a practice 'attended with great damage and inconvenience to Sir Ralph and his tenant'.[57] A more serious event occurred in 1861, when one of the waggoners – James Towl – was fatally crushed between two trucks, while trying to couple them at Laira.[58]

By 1865 the head of Johnson Brothers, William Johnson, had held the reigns of the P&DR for over forty years, during which time he had taken on the mortgage of the line. That year moves were made to rejuvenate the railway. The Plymouth & Dartmoor Railway Company was reconstituted, £75,000 of shares being issued in William Johnson's name, so that the new company could buy the railway directly off Johnson himself.[59] The local press reported that the new promotors were 'largely interested in the production of granite'; however their goal was no longer the quarries around Foggintor.[60] Over the years, operations in the P&DR's southern section had gradually gained greater importance over those in the north, the opening of two new quarries on the southern edge of the moor driving this switch away from the Princetown area. The company constructed a new branch line to the Cann Wood slate quarry, while a much longer line, which connected onto this branch, was built to serve the china clay quarries at Lee Moor. While the P&DR did not own the Lee Moor tramway itself, traffic from the quarries there travelled over the railway to the P&DR's goods depot at Sutton Pool Harbour.[61] By the time of the company's reformation in 1865, the railway was no longer reliant on granite in order to survive, the erratic demand for the stone comparing

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[57] TBP: 874/21/5 George Giles to F. W. Filmer, 25 August 1853.
[58] *Tavistock Gazette*, 18 January 1861, p. 4; *Western Morning News*, 26 January 1861, p. 2.
[59] Kendall, *The Plymouth & Dartmoor Railway*, p. 77.
[60] *Western Morning News*, 9 June 1865, p. 3.
[61] Kendall, *The Plymouth & Dartmoor Railway*, pp. 70-75.

unfavourably with the constant supply of china clay being exported from the south of the moor. Despite the change in the company's leadership, no further development of the Princetown section was forthcoming. Expressions that the line could be further developed remained isolated cases, hopes of the line being re-laid remained unfulfilled, and the rails would still be missing when the GWR arrived at the end of the 1870s.[62]

Why was the line overlooked for so many years? The complacent attitude towards improving the line reflected a deeper culture towards railway development. Given the length of time that the P&DR had been operational, contemporary economic principles would have viewed the organisation as a 'mature' business, and consequently one which had already realised its full potential. Prior to 1850 there was a dominant view that infrastructure investments, such as railways and canals, should return constant revenues, and it was not anticipated that there would be a continued growth. Instead, it was believed that railways would achieve their potential within a year or two of opening. In his 1855 work *Railways: Their Capital and Dividends*, railway engineer and manager Edwin Chattaway stated that 'the traffic returns seem to have reached their culminating point, and, save in a few exceptional cases, the probability of any appreciable increase under this head is very remote.'[63] The P&DR was clearly marked in the public consciousness as belonging to an earlier age of railway development, which had since ended. While the company's title officially proclaimed that it was a railway, throughout the P&DR's existence it was frequently referred to as a tramway, a situation influenced by its lack of steam locomotive power. As time went on the very term 'tramway' became associated with backwardness. The writer of the *Reading Mercury*, clearly inspired by the recent opening of a public tramway in Paris in 1855, asked 'why should tramways be despised in practical England, and ignored in London and its endless suburbs? Why should people laugh at the idea of *horse railways* – of tramways on our common roads? Perhaps because they are old fashioned, and have been put in the shade by locomotive

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[62] TNA: RAIL 578/3 GWR Memorandum of Agreement 16 July 1878
[63] Andrew Odlyzko, 'The Early British Railway System, the Casson Counterfactual, and the Effectiveness of Central Planning', *Essays in Economic & Business History* Vol. 34 (2016) pp. 72-74.

lines.'[64] The P&DR had become an archetype of these old fashioned systems, which were characterised as being 'confined to bleak and dreary mining districts, or buried in the twists and twirls of our great slate quarries,– used for heavy loads of luggage, coals, ores, slates, and granite blocks, as on the Dartmoor tramway,– not for the conveyance of passengers,– not drawn gallantly on by horses *á la poste*. There the carriages used were scrubby trucks, short, thick, and stumpy, with pullies for wheels just big enough to lift them clear off the rails or plates.'[65] The situation in Britain was compared unfavourably with France, where engineers had improved existing tramways, and developed new ones, in contrast to Britain where 'no one thought of *improving* tramways'.

Having been constructed during the pioneering phase of Britain's railway development, the P&DR, when first opened, was completely isolated from any other railway. As Britain's railway network began to grow, the underlying commitment to laissez-faire caused this early development to be uncoordinated due to a lack of sufficient regulation. Consequently, integrating the P&DR into the rest of the network, when it did arrive, would be hampered by the different gauge it adopted. The first mainline railway in the area, the South Devon, had been built to a broad gauge of seven feet, this being the favoured gauge of its engineer, I. K. Brunel. Prior to the emergence of a national railway network in the 1840s, little thought had been given to standardising the gauge of the various railway lines, with the localised and self-contained nature of early railway construction causing gauges to be chosen on an individual basis. The passing of the Gauge Act in 1846 resolved this situation; however the South Devon Railway Act had been passed two years prior to this.[66] While the P&DR could have theoretically been re-laid to standard gauge – assuming that this had been the dominant gauge in the area – to convert it to broad gauge would have only been possible at very considerable cost, due to the increased size of the earthworks required. Nonetheless, the passing of the South Devon Railway Act in 1844 did briefly reignite optimism for the

[64] *Reading Mercury*, 24 January 1857, p. 7.
[65] Ibid.
[66] MacDermot, *History of the Great Western,* p. 104.

P&DR's future. The SDR, by extending the mainline railway from Exeter to Plymouth, would provide a direct link between the latter city and London, and integrating the P&DR into this network soon occupied local thought. In 1844 *Flintoff's Directory*, a local guidebook for the Plymouth area, reported that 'on the approach of the extension of the Great Western Line, it [the P&DR] will be rendered capable of working locomotives, and become an important branch to the main line.'[67] At this stage cultivation of the moor was still an aspiration, and the arrival of the SDR would assist in this by 'affording a direct and ready means of conveying the agricultural produce to the market, where an unrestricted sale might be with safety calculated on.'[68]

Despite this brief spark of local interest, the idea of using the line for economic generation soon disappeared. The P&DR had originally been seen as the lynchpin through which improvement could be enacted on Dartmoor. However, when a revival of interest in improvement occurred during the middle of the century, the railway's potential contribution was seen as almost incidental. Speculation that the government was planning on returning the prison to use stimulated a fresh wave of schemes with the aim of turning the moor to profit. In 1847 the local press bemoaned the fact that of the 254,240 acres on Dartmoor, only 1000 were cultivated.[69] The acquisition by Henry Fowler of Prince Hall, with its 2,600 acres of farmland, had provided renewed impetus for the cultivation of the moor. The hall, which lies to the north-east of Princetown, was purchased by Fowler in 1846, who subsequently went to great lengths to improve the quality and productivity of the existing farmland. In 1850 the Devonport Mechanics Institute, citing Fowler's 'extraordinary experiments' as inspiration, offered a prize for the best essay on the cultivation of Dartmoor's wastelands, as a means of generating employment for the unemployed of the district. Writers were asked to explore various areas, including 'the feasibility of using the present Plymouth and Dartmoor Railway

[67] *Flintoff's Directory & Guide Book to Plymouth, Stonehouse and Devonport*, (Plymouth: G. Flintoff, 1844) p. 19
[68] Ibid.
[69] *Exeter and Plymouth Gazette*, 17 July 1847, p. 8.

for locomotive travelling.'[70] Such was the desire to initiate a discussion of the subject, that the prize was renewed at a higher price of ten guineas after the original response had been deemed lacklustre.[71] Four years later Henry Tanner produced his own essay on cultivating the moor, but in this case only gave the P&DR a brief mention. While suggesting that a fully restored railway could be used to transport lime, Tanner was more concerned with connecting Princetown by road to Okehampton.[72]

This reawakened interest in cultivation was not the only activity occurring on the moor during this period; in September 1850 Dartmoor prison was formally reopened for convict use.[73] During this period mounting colonial resistance to the settling of criminals had forced a gradual scaling back of transportation, leading to increasing pressure being placed on British prisons. The Whig government which took office in 1846 sought to halt the campaign to end transportation by introducing a new scheme to moralise convicts at home prior to them being sent abroad. Changing attitudes towards prisoner reform meant that by the late 1840s, solitary confinement followed by hard labour was considered as being the best means of rehabilitating serious criminals, while the Penal Servitude Acts of 1853, 1857 and 1867 gradually increased the length of prison sentences.[74] With the reopening of the prison, the P&DR was used to transfer inmates, the first shipment occurring in November 1850, when sixty prisoners were transferred from Liverpool. It was reported in the local press that the prisoners were received at Laira, where they were 'placed in three large waggons, provided by the contractor, Mr P. Blatchford', before being sent to the granite quarries at Princetown, from where they were marched on foot to the Prison.[75] The 'quarries at Princetown' refer to those at Foggintor; several accounts from this period relate that the line north of this point

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[70] *Western Courier, West of England Conservative, Plymouth and Devonport Advertiser*, 18 September 1850, p. 8.
[71] Ibid.
[72] Tanner, *The Cultivation,* pp. 40-41.
[73] Ron Joy, *Dartmoor Prison: A Complete Illustrated History Vol. 2* (Tiverton: Halsgrove, 2002) p. 13.
[74] Philip Harling, 'The Trouble with Convicts: From Transportation to Penal Servitude, 1840–67', *Journal of British Studies* 53 (2014) p. 87.
[75] *Royal Cornwall Gazette*, 8 November 1850, p. 8.

had been lifted.[76] Despite the increase in activity around the railway, none of the events on the moor stimulated any interest in further developing the line.

Penal transportation was finally ended in 1868. At the end of that year Lopes Massey Lopes, great-nephew of original P&DR promotor Manasseh Masseh Lopes, successfully stood as a Conservative MP for South Devon. Lopes evidently saw political utility in the ending of transportation; the following year the local press began agitating for a new railway, and Lopes would be regularly mentioned, directly or indirectly, as a backer for such a scheme. From the tone of these articles, it is likely that a number originated from Lopes himself. It was reported that the discontinuance of transportation had caused convict prisons 'to be filled to overflowing, so that Government is really seriously embarrassed to dispose of them.'[77] As an example, it was noted that in a twelve-month period, the number of prisoners held at Dartmoor had risen from 600 to 900. As well as the expense of transporting convicts to and from the prison, it was recognised that the growing convict population would lead to a diminishing amount of available work. Rebuilding the P&DR was put forward as a means of providing a new source of employment for the prisoners, enabling this growth to be sustainable.[78] The involvement of Lopes in this campaign came on the back of a political defeat by the Conservatives, and reflects an attempt to reinforce the political position of both himself and his party. The recent election had seen the Liberal Party increase its majority, a direct consequence of the changing political demographic brought about by the 1867 Reform Act, which had extended the franchise to many working-class men.[79] Although the Act did not facilitate a dramatic increase in the South Devon electorate, and the Conservatives were able to hold the constituency, the election did not pass without upset. One of the two seats had been contested by the Liberal John Russell, the first time that a non-Conservative had stood in over thirty years.[80] Russell's win of a significant portion of the vote would have

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[76] Tanner, *Cultivation*, p. 40; *Royal Cornwall Gazette*, 8 May 1846, p. 3.
[77] *Tavistock Gazette*, 13 August 1869, p. 5.
[78] Ibid.
[79] Price, *British Society*, p. 285.
[80] Frederick Craig, *British Parliamentary Election Results 1832-1885* (London: Macmillan, 1977) pp. 378-379.

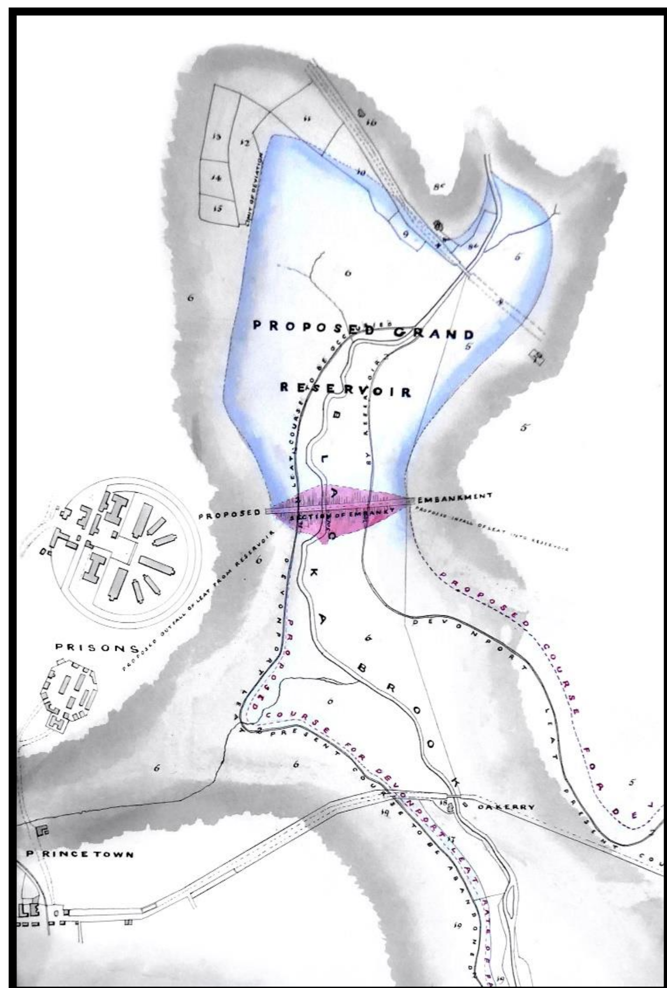
incentivised Lopes into strengthening his political position by taking a more proactive role in improving the fortunes of the area, and through addressing social concerns. The situation with the prison was carefully manipulated by the media in order to lend credence to the building of a new railway. While the local press presented Dartmoor Prison as having been subject to a burst of activity following the end of transportation, the quoted increase from 600 to 900 men was not unusual when compared to the longer-term trend. Since 1854 the prison had been capable of accommodating 1200-1300 men, while during 1856-7 there had been 502 convict departures and 580 arrivals, with the total number of prisoners at any one time standing at around 1000.[81]

This period of press agitation saw a new line surveyed by the South Devon Railway, however at this stage – 1869 – the proposals were not taken any further. What is clear is that neither the reopening of the prison in 1850, nor the accompanying attempts at cultivation, had any noticeable effect on stimulating the creation of a new railway. Similarly, the reconstitution of the P&DR company in 1865 did not result in any serious attempt to develop the northern section of the line. Although these events had the potential to trigger the revitalisation of the railway, they were badly timed when placed within the wider context of nineteenth-century railway development, falling outside of the peak levels of public interest in railway construction. Railways were particularly susceptible to the boom-and-bust cycles of industrialisation, with investment in them characterised by cycles of activity. Over the course of the nineteenth century, there were three phases of 'railway mania', with peaks occurring in 1839-40, 1847 and 1865-6.[82]

The first two periods of mania largely focussed on the creation of trunk routes between major cities. During the first of these peaks a significant new railway was proposed over Dartmoor, which had it been built, would have come within a short distance of the P&DR. This scheme

[81] Joy, *Dartmoor Prison*, pp. 32, 36.
[82] Bagwell, *The Transport Revolution*, p. 87; T. R. Gourvish, 'Railways 1830-70: The Formative Years', in Michael Freeman and Derek Aldcroft (eds.), *Transport in Victorian Britain* (Manchester: Manchester University Press, 1988) p. 60.

mirrored the aims of the earlier improvers, with its intention of physically harnessing the power of the moor. In this instance, the improvement would not be manifested in agriculture, but instead through the enabling of regional connections. The proposal for this line was stimulated by the advent of the Bristol and Exeter Railway in the late 1830s, construction of which would see Plymouth come within potential reach of a mainline railway. With growing international trade, connecting ports to the manufacturing and consumption centres was of high priority, and attention was soon focussed towards connecting Plymouth, via Exeter, to the new railway network. One of the first serious proposals was made in 1840, for a route along the south coast, which would subsequently become the South Devon Railway. The same year a rival scheme was announced by Civil Engineer James Rendel, a former resident of Plymouth who had produced many works in the county. Rendel's proposal was for a more direct line, running over the middle of Dartmoor, which would be sited around a mile to the east of the P&DR. While Rendel spoke of the line aiding improvement of the moor, he made no mention of Princetown, or of the P&DR. It was, however, anticipated that a branch line would be constructed to Tavistock. It was Rendel's intention that the moor itself would contribute towards the moving of trains. For the steepest section of the line, Rendel proposed to use rope haulage, powered by waterwheels, which would pull trains 'at a velocity of not less than from 15 to 20 miles an hour.' This would have entailed the creation of three



James Rendel's plan for a reservoir near Princetown.
Devon Heritage Centre: QS/DP/148

reservoirs on the moor, including one in Blackabrook valley, a mile to the east of Princetown.[83] Even at this early stage in railway development, using rope-haulage for an inter-city railway was anachronistic, and despite significant design work, the scheme did not proceed. Ironically, the rival South Devon route, which was subsequently constructed along the southern edge of the moor, ran trains using a cutting-edge atmospheric system, which would prove to be a financial disaster after the technology proved too advanced for contemporary materials to withstand.[84]

Rendel's proposal appeared at the end of the first railway boom. A slowing down of the economy in the late 1830s led to a subsequent reluctance to invest in railway schemes. By the mid-1840s however, the improving state of the economy and the increasing numbers of investors brought about a frenzy of speculation, with the period from 1845-7 witnessing the extravagant promotion of many uneconomic railway schemes.[85] Despite the optimism of this era, rebuilding the P&DR was not undertaken, as it failed to align with contemporary financial understanding. During this period of railway mania, projected revenues were principally focussed on passenger traffic, which were expected to dominate a company's income. Being an area of low population, Princetown did not fit this model.[86] By the time the prison opened, an event which had the potential to stimulate a new railway, the period of mania had collapsed, and railway investment was once again at a low ebb. Nonetheless, the collapse of the railway bubble would lead to the development of new legislation to protect investors, and it was this same legislation which resulted in the proliferation of granite companies on Dartmoor from the middle of the century onwards.

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[83] James Rendel, *Report of a Proposed Line of Railway from Plymouth, Devonport, and Stonehouse, to Exeter, Over the Forest of Dartmoor, with a Branch to Tavistock* (Plymouth: R. White Stevens, 1840) p. 14.
[84] MacDermot, *History of the Great Western*, pp. 104-118.
[85] Bagwell, *The Transport Revolution*, p. 86.
[86] Odlyzko, 'The Early British Railway System', p. 75.

The third period of 'railway mania' began in 1861, when 161 proposals were authorised, reaching a peak in 1865 when 251 schemes were approved.[87] While the 1860s did not see the rebuilding of the line, events during that decade determined the organisational direction from which a new railway would come. This final railway mania saw the creation of many subsidiary and rural branch lines. This last phase of mass railway speculation ended in 1866 with the collapse of the London bank Overend Gurney, a seemingly respectable firm which had been heavily involved in railway finance. The period of 1862-63 had seen low interest rates in the London money market, resulting in the firm seeking more profitable investments in order to maintain its profit levels. Changes in the management of the firm in the late 1850s, due to death and retirement, had led to the company coming under the direction of individuals who were less prudent than their predecessors, and the firm engaged in risky investments, lending unwisely and on inadequate security. In changing its status to a limited company in 1865, the true state of the bank's finances was publicly revealed; rumours of insolvency and loss of confidence from depositors led to the withdrawal of deposited funds, with the company formally being declared insolvent after it was compelled to approach the Bank of England for a loan. The company's failing created a panic; with depositors and investors unable to determine which banks were financially sound, a run on banks resulted in a number of solvent banks failing.[88] As a result railway investment plummeted until 1870, after which point it began to recover.[89] While the confidence of investors had been shaken in the past, this time the financial collapse had a more permanent effect on the future shape of railway investment; after 1870 almost all new railway capital was raised by the existing companies.[90] Being a small organisation with an obscure history, the newly reconstituted P&DR would have had an uphill struggle to successfully launch a large rebuilding scheme. It

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[87] Mark Casson and Andrew Godley, 'Entrepreneurship in Britain, 1830–1900', in David S. Landes, Joel Mokyr and William J. Baumol (eds), *The Invention of Enterprise: Entrepreneurship from Ancient Mesopotamia to Modern Times* (Princeton: Princeton University Press, 2010) p. 230.
[88] Ashraf Mahate, 'Contagion Effects of Three Late Nineteenth Century British Bank Failures', *Business and Economic History*, Vol. 23, No. 1, (1994) pp. 103-104.
[89] Odlyzko, 'The Early British Railway System', p. 315.
[90] Ibid. p. 319.

was therefore inevitable that any major reconstruction of the line would fall to a company with a proven track record.

The obscurity in which the line had existed for many years would be briefly lifted during the early 1870s, as events in Europe made their presence felt on the moor. Beginning in 1868, military reforms implemented by the Secretary of State for War, Edward Cardwell, aimed to modernise Britain's army, and centralise control. These reforms formed part of a wider attempt during Gladstone's premiership to diminish the influence of privilege, and place greater emphasis on merit and efficiency.[91] The success of Prussia during the Franco-Prussian war of 1870 exacerbated British concern about the condition and effectiveness of the army, and attempts were made to incorporate into the British military the features of Prussian armed forces which were believed to have contributed to its success. Among these was the introduction in 1871 of annual manoeuvres, which were considered essential for the implementation of theoretical knowledge in a practical setting, as well as the testing of organisational structures. Consequently, in 1873 Dartmoor was chosen as the site for one of three large-scale military manoeuvres.[92]

While local training operations had been held on the moor in the past, this new operation was very much larger in scale, and was the first in which the railway had been actively engaged. Four years earlier, the participation of 500 men in a training operation had been considered a significant event by the local press; in comparison the 1873 manoeuvres consisted of over 12,000 troops.[93] In June it was reported that the Control Department of the War Office were to make approaches to the railway for the transportation of men and materials.[94] The P&DR, attempting to capitalise on the attention being brought to the line,

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[91] Albert Tucker, 'Army and Society in England 1870-1900: A Reassessment of the Cardwell Reforms', *Journal of British Studies*, Vol. 2, No. 2 (1963) p. 111.

[92] Denis Dubs, 'Edward Cardwell and the reform of the British Army, 1868-1874', (PhD Thesis, University of Nebraska, 1966) pp. 117, 121; Kelly*, Quartz and Feldspar* pp. 185-188.

[93] *Tavistock Gazette*, 13 August 1869, p. 5; Ministry of Defence, 'The Armed Forces on Dartmoor A Brief History', 2011, https://www.gov.uk/government/publications/a-brief-history-of-dartmoor, accessed 10 February 2020.

[94] *Western Morning News*, 11 June 1873, p. 3.

posted an advert in the July edition of the *Western Morning News,* announcing that the railway was available for the transport of goods, with applications for rates to be made to Thomas W. Bastow of Plymouth.[95] In addition to the military personnel present, the activity on the moor attracted large crowds of spectators, who also made good use of the railway. The activity around the line drew national attention, the railway's involvement in the manoeuvres being mentioned in numerous press articles; 'Although it has long ceased to be used for any other purpose than the conveyance of granite from the quarries at Hessary Tor', observed the *London Evening Standard*, 'it will be turned to some account during the present encampment.'[96] The archaic operation of the line was by this stage clearly something of a novelty, and the writer of the *Morning Post*, through regaling their experience of its 'amusing' operation, provides a rare glimpse of passenger travel on the line: 'Many persons who visited Yannaton [Yennadon] today availed themselves for the purpose of the tram cars running on the Dartmoor Railway from the Rock Hotel. These run in connection with the trains and are really very amusing as well as convenient travelling. When the granite waggon is seen approaching, as there are no sidings handy, everybody jumps down and by dint of putting stones on the rail the tram is thrown off the line. When the waggon has passed it is lifted on again.'[97]

[95] Ibid. 10 July 1873, p. 1.
[96] *London Evening Standard*, 24 July 1873, p. 4.
[97] *Morning Post*, 9 August 1873, p. 8.

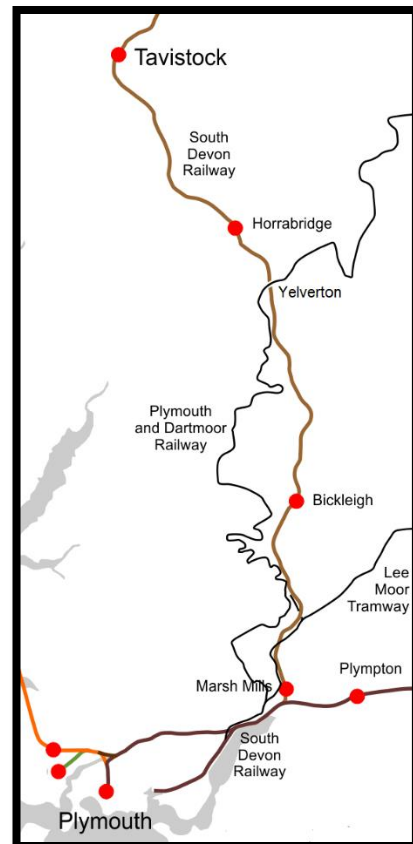
TRAM CAR FROM THE ROCK TO THE 1ST DIVISION.

The Illustrated London News, 23 August 1873

Within four years of this episode, the Great Western Railway would inaugurate the decisive move to build a new line to Princetown. After so many years of the P&DR remaining moribund, why did this move happen when it did? The answer is tied up in the broader regional development of railways, and the government's attempts at counteracting their large monopolies. The emergence of railways had occurred at a time when free market economics had dominated thinking. As Andrew Odlyzko surmised, 'laissez faire was the reigning doctrine, and markets were expected to be regulated by competition as much as possible.'[98] However, the propensity of the railways to amalgamate and dominate the region they served proved problematic when it came to sustaining this competition. In 1843 the 2100 miles of railway line were controlled by seventy different companies, by 1865 the mileage had risen

[98] Odlyzko, 'The Early British Railway System', p. 79.

to 11,451, however the number of companies had increased by only eight.[99] The means of obtaining parliamentary authorisation for railway construction was particularly time-consuming and wasteful of resources, allowing rival schemes to have a free hand in disrupting the proceedings. This wastefulness has been attributed to the financial position which British industry enjoyed at the time, in which such expenditure was seen as a small price to pay.[100] Those railway companies keen to expand their empire regularly promoted schemes which appeared independent, but which shared directors with the 'parent' railway. One such company was the South Devon & Tavistock Railway, which opened from Tavistock to Plymouth in 1859. Allied to the South Devon Railway, the line would subsequently play a key, if somewhat unwitting role in stimulating the rebuilding of the Princetown railway. As it stood in 1859, the new line crossed over the P&DR at Yelverton, and from this location the two lines effectively mirrored each other down to Plymouth. Despite this they remained independent of each other, while Yelverton remained without a station, the nearest facility being at Horrabridge, a mile and half to the north. The P&DR therefore continued to be as isolated as ever, its status as a private railway reinforced. However local people, who lived along the section from Yelverton to Princetown, could now journey to Plymouth in far more comfort and speed, provided they were willing and able to travel to Horrabridge by road.



The South Devon & Tavistock Railway – brown – mirrored the route of the P&DR. *Wikipedia Commons*

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[99] J. S. Foreman-Peck, 'Natural Monopoly and Railway Policy in the Nineteenth Century', *Oxford Economic Papers*, Vol. 39, 4 (1987) p. 700.
[100] Bagwell, *The Transport Revolution*, p. 88.

The GWR's main rival in the South West was the London & South Western Railway, which had reached Exeter in 1860, and had been gradually extending towards Plymouth, via North Devon, often through the form of nominally independent promotions. At this stage the GWR's own presence in Plymouth was achieved through an allied company, the South Devon Railway. Although the GWR absorbed the South Devon Railway in February 1876, its dominance in the Plymouth area was very short-lived, for the LSWR arrived there only three months later. The circumstances through which the LSWR was able to extend into Plymouth reflected not only the government's open-minded attitude towards competition, but also their inconsistency in dealing with railway monopolies. It also vividly demonstrates why the GWR and its associates were keen to maintain the initiative within their catchment areas. During the 1854 debate of the South Devon & Tavistock Railway Bill, a line which would effectively be an extension of the GWR's broad gauge empire, there were rumours that the House of Lords would compel the company to introduce a clause requiring the standard gauge to be adopted over the whole of the line, potentially all the way to Plymouth. As recounted by G. H. Anthony in his history of the Tavistock line, 'the Lords did not, in fact, insist on the narrow gauge being laid throughout, but at the last moment, when the Bill came before Lord Redesdale, he, without receiving any evidence upon the subject, and "by the immense authority he possessed in such matters", forced into the Bill a clause, that should a narrow gauge line ever connect itself with the Tavistock branch the Company would be obliged to admit the narrow gauge upon their system.'[101] Thus when the LSWR reached the Tavistock line in 1874, a third rail had to be laid on their behalf, following which the South Devon & Tavistock line, now wholly owned by the GWR, was forced to allow LSWR trains to run to Plymouth.

The years immediately following this episode witnessed a flurry of proposals for new lines to Princetown, as the LSWR sought to build on its foothold, and the South Devon and Great

[101] George Henry Anthony and Stanley C. Jenkins, *The Launceston Branch*, (Headington: Oakwood Press, 1997) pp. 27-28.

Western attempted to fend it off. In 1874 the 'South Devon & Princetown Railway', allied to the South Devon Railway, proposed two broad gauge routes from Yelverton to Princetown, but failed to deposit the required capital in time.[102] A standard gauge scheme was then proposed in 1875, which was immediately met with a proposal for a rival broad gauge scheme; however, 'as the country was not rich enough to justify a struggle for its possessions, the narrow gauge scheme was abandoned, and the broad gauge scheme not proceeded with.'[103] Events repeated themselves the following year, when the inhabitants of Princetown petitioned the LSWR to construct a line on the trackbed of the tramway, a move which quickly spurred the GWR into announcing the formation of their own company to build a line. This constant toing and froing between railway companies created a degree of agitation within the local press. The *Western Morning News* expressed hope that the promotors of these schemes would 'not pursue a "dog in the manger" policy' by denying the other the opportunity to construct a line, which they themselves were not prepared to build, and instead put the interests of Princetown first.[104] This time however, the GWR's proposal would prove to be an enduring one, and would result in a new railway to Princetown.

The newly formed Princetown Railway Company, although nominally independent, was under the heavy influence of the GWR, four of the seven Princetown Railway directors being representatives from the larger company. While the cost of construction would be split between the two companies, the GWR would be responsible for overseeing the building and operation of the line, and in return take seventy percent of the gross receipts.[105] As will be seen later, this situation would result in a great deal of discontent among the local population. The chapter has already shown how the arrival of the LSWR in Plymouth initiated a scramble for control of the moor. The construction of the new Princetown Railway was an attempt by the GWR to reinforce its monopoly on the Plymouth area in the face of

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[102] Anthony Kingdom, *The Yelverton to Princetown Railway* (Newton Abbot: Forrest Publishing, 1991) pp. 61-62; Tavistock Gazette, 22 January 1875, p. 5.

[103] *Western Morning News*, 24 April 1876, p. 2.

[104] Ibid.

[105] TNA: RAIL 1110/385, Half-yearly report of the Princetown Railway Directors, 13 February 1883.

emerging competition, allowing it to safeguard a potential future asset. The GWR was not alone in employing this tactic. The North Eastern Railway invested in certain branch lines in the knowledge that they would not return much in the way of profit, regarding itself as 'a sort of holding company for the region as a whole', with directors' regional affiliations exerting a key influence. The NER had an above average proportion of local shareholders, and was consequently under a particular influence to provide cheap rates and an extensive service.[106] With the appointment of Massey Lopes onto the GWR board during the 1860s, the GWR had a director with a vested interest in the Princetown area, who as well as exerting his own influence, also provided the eyes and ears for regional developments.[107] The GWR's view of Lopes' allegiance is illustrated by the Princetown Railway company reports; although a director and subsequently chairman of the board, Lopes never formally appeared as a representative of the GWR.[108]

Sir Massey Lopes c.1860-65.
National Portrait Gallery

During the early development of the GWR's proposal, the company approached Edmund Du Cane, Inspector General of Prisons, who was contemplating the construction of a new road to serve the jail. The draft of the GWR's initial letter included a section, subsequently crossed out, stating that the GWR directors were aware of this development 'to facilitate the traffic in connection with the convict prison', and in a further section also crossed out, implied that Walkhampton landowners would be aggrieved at the construction of such a road.[109] The reference to landowners almost certainly referred to Massey Lopes. By omitting these details from the final letter, the GWR would avoid any suggestion of a conflict of interest involving one of their directors. The threat of a new road was a useful tool for Lopes. While the SDR

[106] Jonathon Boswell, 'The Informal Social Control of Business in Britain: 1880-1939', *The Business History Review*, Vol. 57, 2, (1983) pp. 246-7.
[107] *Western Morning News*, 21 January 1908, p. 8.
[108] TNA: RAIL 1110/385, Half-yearly reports of the Princetown Railway Directors, 1881 – 1907.
[109] TNA: RAIL 578/3, Draft of letter from Frederick Saunders to Edmund Du Cane, 15 February 1877.

and GWR had engaged in blocking manoeuvres to disrupt the LSWR's proposals, there were other means by which the rival company could infiltrate the district. In 1870 *Black's Guide to Devonshire*, while mentioning the P&DR, recommended that those wishing to travel to Princetown should do so by road from Tavistock.[110] With Tavistock station being served by both the GWR and LSWR, the former company was in the position of losing Princetown-bound traffic to its rival, a situation compounded by the tarring over of the Princetown and Rundlestone roads by prison workers around 1874.[111] There were also local concerns over the increasing size of road transport, particularly the development of traction engines, with an expectation that increased rates would be required to support the large staff of able-bodied men required to keep the roads in good order.[112] The GWR realised that if the Board of Prisons was prepared to pay for a new section of road, then they might instead be persuaded to pay for a shorter section of new railway, at a stroke aiding the GWR in gaining a foothold in a new area while simultaneously subduing a potential form of competition, as well as enabling Lopes to keep his constituents pacified.[113]

The isolated nature of Princetown and its prison meant a railway was more of a necessity than a luxury for the existing community. Indeed in January 1881, while the line was being constructed, a blizzard cut off Princetown for a significant length of time, prison staff being forced to slaughter the jail's farm animals in order to feed themselves and their inmates, as well as the local residents.[114] The GWR clearly felt that they were in a bargaining position, such that they could induce the government to underwrite a certain amount of the construction costs. In February 1877 a letter was sent from Frederick Saunders, GWR secretary, to Edmund Du Cane, chairman of the board of directors of convict prisons, in which the subject of a railway to Princetown was broached for the first time. Saunders announced that despite 'the Directors being desirous, as far as possible, of furthering the

[110] *Black's Guide to Devonshire*, p. 240.
[111] Joy, *Dartmoor Prison*, p. 53.
[112] *Tavistock Gazette*, 8 December 1876, p. 5.
[113] TNA: RAIL 578/3, Draft of letter from Frederick Saunders to Edmund Du Cane, 15 February 1877.
[114] Joy, *Dartmoor Prison,* p. 59.

interests of the localities through which their railways pass', they would not be prepared to proceed 'unless they are assured that they can rely upon substantial pecuniary assistance from those interests which will more particularly be served if the line be made'.[115] The board were keen to have the line part-subsidised whether in cash or kind, Saunders continuing 'it has been suggested that if the Inspectors of Prisons are not in a position to advance money for such a purpose they may afford substantial assistance by the aid of convict labour in securing the construction of earthworks, ballasting etc.' It was Saunders' hope that if the cost of the construction of the first three or four miles from Princetown could be covered by the Prison, then the 'balance of the capital necessary to complete the line might be forthcoming from other sources.'[116] At this stage the request for government assistance was turned down. However, negotiations were reopened when the GWR continued to proceed with their proposals for a new line.[117] Initially it was hoped that the Convict Department would contribute £5,000 worth of labour; however as attempts were made to formalise the arrangements, practical realities put paid to the idea. By April 1880 the Princetown Railway's Engineer, William Lancaster Owen, conceded defeat, declaring to the railway's board that 'we have now exhausted every effort to obtain from the Convict Department a proper amount of labour equivalent to the sum of £5,000.'[118] Owen had been the GWR's Engineer for New Works since 1875; prior to this he had previously worked with John Rennie the Younger, an engineer whose family firm had made considerable use of Dartmoor granite.[119] He noted that not only did 'our contractors generally dread any proximity to gangs of convicts', but also the landscape itself discouraged the use of men based at Princetown, the remoteness of the location creating logistical problems for the delivery of materials. Owen recognised that the most logical procedure for construction would be to start at Yelverton, with its mainline railway link, and proceed northwards. Besides the logistical problems and fear of working

[115] TNA: RAIL 578/3, Draft of letter from Frederick Saunders to Edmund Du Cane, 15 February 1877.
[116] Ibid.
[117] TNA: RAIL 578/3, Convict Prisons Department to the GWR, 17 May 1878
[118] TNA: RAIL 578/3, W.L. Owen to A. L Jenkins, April 19 1880.
[119] See Chapter 1, pp. 28-29.

alongside convicts, the loss of £5,000 worth of work to the Convict Department would have been a further dissuasion.

The failure to secure the expected level of investment from the Convict Department did not stop the GWR from increasing the costs of construction beyond the original specification. This situation was of great concern to the Princetown Railway shareholders, whose company was left to foot the bill. Owen was called upon by the Princetown Railway secretary to explain the increase. Originally it had been the intention to erect cheap timber stations at Princetown and Dousland; however the board approved the construction of larger, more permanent stone buildings.[120] The use of more resilient materials was undoubtedly a reaction to the Dartmoor weather, as before the line had even been completed the environment was already making itself felt. During a site visit by the line's engineer in July 1883, shortly before the railway was due to open, it was reported that the contractor was having great difficulty in maintaining a sufficient workforce, as 'the men refuse to stay in the wet and the cold at this time of year when they can get plenty of work in better climates.'[121] In addition to more substantial buildings, the track too was upgraded from the original specification, double-head rail being substituted in place of lighter flat-bottom rail.[122] These changes, together with the implementation of more extensive signalling and telegraph arrangements 'in consequence of the modern extreme demands of the Board of Trade', had produced in the view of the engineer 'a thoroughly good railway with first class heavy steel rails & fittings adapted for a heavy mineral traffic & one that will be maintained at a very small cost'.[123] One expense not originally budgeted for was the provision of sidings and junction for the granite quarry, although this was subsequently remedied. While this may seem strange, it is likely that the GWR expected any such provision to be funded by the

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[120] TNA: RAIL 578/3 W.L. Owen to A.L Jenkins, 12 October 1882.
[121] TNA: RAIL 578/3, Princetown Railway Engineer's Office, 18 July 1883.
[122] TNA: RAIL 578/3 W.L. Owen to A.L Jenkins, 12 October 1882.
[123] TNA: RAIL 578/3, W. L. Owen to A. L. Jenkins, 12 December 1882.

quarry itself, before the company eventually succumbed to political pressure from Lopes to cover the cost themselves.

The scale of the new railway's construction set it firmly apart from the original tramway. Not only were the buildings more substantial, but the earthworks and bridges were of a greater magnitude, and where the tramway had wound round the contours of the land, the new line cut straight through. As a modern railway, the visual distinction over the tramway was clear. However, the increased scale of engineering was not the only manifestation of the modern age. Completion of the railway highlighted the increasing level of state intervention in private industry, which had emerged in the decades following the opening of the P&DR. Whereas the original tramway had simply undergone a local inspection prior to opening, the new Princetown Railway was subject to a rigorous examination by the Board of Trade before trains could run.[124] While this inspection generally focussed on the quality of the railway's infrastructure and hardware, the physical location of the line also came under scrutiny. While Dartmoor's undulating landscape had benefited the original tramway by enabling its trains to descend partially under gravity, the steep gradients were viewed rather differently when it came to authorising the new railway in 1883. On his inspection of the line in July, the Board of Trade inspector, Colonel Yolland, expressed concern that were a loaded waggon to run away from Swell Tor Siding, the opposing gradient on the approach to Dousland would not be sufficient to check it, leaving it free to carry on down to the railway junction at Yelverton.[125] Following a discussion with Colonel Yolland, Lancaster Owen spent an evening on site carrying out experiments with a loaded waggon to establish how far it would travel and whether any additional safety measures were needed. Colonel Yolland's prediction proved to be correct, and consequently the granite sidings had to be arranged to allow an entire train to be accommodated, with room for shunting, clear of the running line.[126] Following Yolland's visit, he also instructed that certain additional works would need to be

[124] TNA: RAIL 566/1, P&DR General Meeting, 6 July 1824.
[125] TNA: RAIL 578/3, W. L. Owen to A. L. Jenkins, 22 July 1883.
[126] TNA: RAIL 578/3, W. L. Owen to A. L. Jenkins, 5 August 1883.

carried out before the line could be opened.[127] This was unwelcome news to the directors of the Princetown Railway. The Princetown Railway Act had included the 'unusually stringent' clause that should the line not be completed within five years of the Act's passing – 13 August 1878 – then the Parliamentary Deposit invested by the company would not be returned. With delays in construction due to bad weather, and with costs having exceeded the original estimate, the very real possibility of losing this money was of great concern to the Princetown Railway directors, a fact which they impressed upon Colonel Yolland.[128] Having reinspected the line on the 9 August, and in view of the impending deadline, Yolland allowed the railway to be opened before the construction work had been completely finished, his authorisation coming just two days before the Parliamentary deadline.[129]

Railway Ownership – 1

Local Utility, Landed Capitalists and London Entrepreneurs

During the long history of the railway to Princetown, the nature of the line's ownership, and of its exact beneficiaries, formed recurring focal points for debate. Prior to the opening of the Lake Lock Rail Road in 1798, and the Surrey Iron Railway in 1802, tramways had been constructed and operated by collieries, quarries and canal owners solely for their own purposes. The Plymouth and Dartmoor Railway represented a new phase in railway development, being financed by public subscription and available for public use, rather than constructed solely for private benefit. In his opening statement to the Plymouth Chamber of Commerce in 1818, announcing the proposal for a railway, Sir Thomas Tyrwhitt declared that the P&DR was being 'founded on the basis of general, as well as local, utility' and that

[127] TNA: RAIL 578/3, Colonel Yolland to Princetown Railway, 16 July 1883.
[128] TNA: RAIL 578/3, A. L. Jenkins to Board of Trade, 24 July 1883.
[129] TNA: RAIL 578/3, Colonel Yolland to Princetown Railway, 16 July and 4 August 1883; Board of Trade to GWR, 11 August 1883.

its chief social aim was 'employment and subsistence for the poor of several Parishes.'[130] Despite the financial problems which plagued the construction of the railway, at a General Meeting in 1822 there was still modest optimism that 'at no distant period, the proprietors will feel satisfied that they have embarked in a scheme, which, though it may not realise large profits, will in a very few years, pay a fair interest to the subscribers, and will gradually be beneficial to the public, and particularly that part of the country, through which it passes, when the prejudices against the use of any new mode of conveyance gradually subside.'[131] Ultimately, the only people who would financially benefit to any great degree were the firm of Johnson Brothers, and to a lesser extent the Lopes family, who received income from ground rents.

The failure of the anticipated levels of investment to materialise compelled the company to keep a close eye on expenditure, including any local attempts at profiteering from the construction. In 1822 the committee became concerned over unnecessary expenditure on fences, the engineer being instructed that he should not 'on any occasion contract with the owners or occupiers for making the same, as it is important that they should have no other interest than that the fences should be substantially and effectively made.'[132] In addition to worries over inflated prices, the construction of these new boundaries would have brought concerns that tenants and landowners would see an opportunity to expand their property beyond its authorised limits. The partition of land had not met with the approval of all local residents; in Walkhampton gates and railings put up alongside the line had been 'wantonly taken away and destroyed either by the carters or other persons employed or by the persons in the neighbourhood.'[133] The company's thriftiness in enclosing its right of way would lead to its own set of problems, and within a few years there would be 'numerous complaints' over the condition of the line's boundaries.[134] In 1829, Mr Coryndon complained that as a result of

[130] Tyrwhitt, *Substance of a Statement*, p. 2.
[131] TNA: RAIL 566/1, P&DR General Meeting, 29 June 1822.
[132] TNA: RAIL 566/1, P&DR Committee Meeting, 28 January 1822.
[133] TNA: RAIL 566/1, P&DR Committee Meeting, 26 November 1821.
[134] TNA: RAIL 566/1, P&DR Committee Meeting, 5 January 1830.

the dilapidated state of the fences along the side of Mr Gosling's land, there had been 'considerable injuries sustained by him in consequence of the herds of cattle', while in early 1831 the committee received a petition from a number of farmers over the bad state of the fences.[135]

During the earlier years of the company's existence, the subject of tolls became a political battleground, being regularly brought up at committee meetings as various parties attempted to have them lowered in their favour. During the emergence of railways, Parliament had initially assumed that they would follow the same model that had existed for turnpikes. In this scenario, the railway companies would provide the physical structure for a transport network, while other bodies would provide the actual mechanism of transport.[136] This concept of a public railway had first been introduced by the Lake Lock Rail Road, where on payment of a toll, individuals could use the railway to transport their own goods.[137] This model formed the basis for the P&DR's operations, with the company charging tolls to those who used its rails for transporting their merchandise. Due to the railway's users having to supply their own means of transport, the P&DR required that 'owners put their names outside their waggons', a practice which would become commonplace on British railways until nationalisation in 1948.[138] As Britain's railway network grew, such markings soon evolved from being merely a means of identifying ownership, to becoming a form of branding in their own right, developing into mobile advertising for the owning company's goods. On the P&DR, the failure to categorise tolls for every form of goods led to abuse by local operators, a situation which was compounded by payments often being deferred on the basis of goodwill. Such was the loss of income that two years after the line opened the managing committee asserted that 'the collector… be desired to take immediate payments of tolls for every thing

[135] TNA: RAIL 566/1, P&DR Committee Meeting, 3 February 1829; P&DR Committee Meeting, 8 February 1831.
[136] Mark Bailey, 'The 1844 Railway Act: A Violation of Laissez-Faire Political Economy?', *History of Economic Ideas* Vol. 12, No. 3 (2004) p. 11.
[137] Christopher Awdry, *Encyclopaedia of British Railway Companies* (Wellingborough: Stephens, 1980) p. 219.
[138] Kendall, *The Plymouth & Dartmoor Railway* p. 16.

that passes up and down the Railway.'[139] However, even the company's toll collector was not free from avarice. In late May 1834 a £10 reward was offered by the railway for the discovery of John Fox, after he had 'not been seen or heard of at his residence in the toll house since the 25 April'.[140] Fox, who appears to have come into the railway's employment ten years earlier to repair a wheelbarrow, had absconded 'not having paid over any portion of the last half years collection of tolls amounting by his return to £61 - 3 - 11½'. The committee, resigned to the loss of revenue, resolved that 'means be taken to obtain the possession of the toll house from the wife and family of the late collector'.[141]

The urgent need to secure income laid the company open to exploitation by experienced City firms, who swept aside the moralising aims of the original improvers in their demand for granite. It has been seen how the London firm of Johnson Brothers took over construction of the line in order to secure access to the quarries around Foggintor. Originally Johnson and Brice, the firm first became interested in the railway following their securing of a contract for the surfacing of Plymouth Breakwater. The proximity of the moor's granite to Plymouth meant that the P&DR was an obvious target for their attention, with the firm offering the P&DR a flat rate of 2s. 6d per ton, on the guarantee that they would transport a minimum of 8000 tons per annum. This granite rate was only half of the 5s. that the P&DR had set out in its prospectus, yet the tonnage Johnsons predicted was twice that which the railway company had anticipated, the result being that the firm guaranteed the P&DR an annual income from granite which was conveniently the same as that which it had set out in its original prospectus.[142] Wooed by this assurance of a regular income, the P&DR granted Johnsons an underlease for the quarrying of granite, effectively giving them sole control of the railway's chief form of trade.[143] When Johnson Brothers took over as contractors of the

[139] TNA: RAIL 566/1, P&DR Committee Meeting, 15 December 1825.
[140] TNA: RAIL 566/1, P&DR Committee Meeting, 22 May 1834.
[141] TNA: RAIL 566/1, P&DR Committee Meetings, 4 March 1824 and 22 May 1834.
[142] TNA: RAIL 566/1, Prospectus of the Plymouth and Dartmoor Rail Road, January 1819.
[143] TNA: RAIL 566/1, P&DR Committee Meeting, 21 June 1821.

line following the debacle with William Stuart, they gained an even stronger foothold over the railway company.

In September 1825 Johnson Bros. asked for a reduction of their already low tolls, under the pretence that it would facilitate their successful tendering for a large government contract.[144] Further concessions occurred a year later, when a meeting chaired by Tyrwhitt, and with John Johnson present, approved a reduction on granite-rubble and sea sand tolls, ostensibly to promote an increase in traffic.[145] However when smaller tramway users attempted to negotiate toll reductions, they met with less success. In 1827, when Mr Dixon requested that other tolls be reduced, the committee responded that this was something they 'cannot entertain'.[146] Later that year at a general meeting, William and John Johnson negotiated a further reduction in their own tolls to 1s. 10d. per ton, for stone specifically destined for Plymouth breakwater.[147] With the ending of the breakwater contract in 1830, Johnsons were aware that the special rate for granite would no longer be valid. However, with the closing of this avenue they attempted to spin the opportunity to open yet another one, writing to the P&DR committee that 'we suggest the company may reasonably alter to the tolls on granite for general purposes the better to enable us to… meet the great competition from other quarries in working up our tender for a new contract.'[148]

While this London-based firm attempted to manipulate the line to serve its own aims, the capital's wider building industry remained ignorant of the potential of Dartmoor to supply its needs. In November 1823 a special meeting of the P&DR Committee was held, after it had been discovered that the official granite specification for the new London Bridge had omitted the P&DR's quarries, despite including those at Haytor, just a few miles away.[149] It was resolved to send a letter to the Bridge Committee, 'in the name of justice and of the public

[144] TNA: RAIL 566/1, P&DR Committee Meeting, 10 September 1825.
[145] TNA: RAIL 566/1, P&DR Committee Meeting, 12 October 1826.
[146] TNA: RAIL 566/1, P&DR Committee Meeting, 5 April 1827.
[147] TNA: RAIL 566/1, P&DR General Meeting, 30 November 1827.
[148] TNA: RAIL 566/1, Johnson Bros. to the Committee of the Plymouth and Dartmoor Railway, 4 January 1830.
[149] TNA: RAIL 566/1, P&DR Committee Meeting, 18 November 1823.

interest', inviting them to satisfy for themselves that the granite on Dartmoor was either genuinely inferior in quality, lacking in quantity, or more costly than its competitors. These were the only perceivable grounds, so the letter stated, on which the quarries could have been excluded. The P&DR committee evidently recognised that the oversight of 'their' quarries was not necessarily accidental, but the victim of a previously arranged deal. In pushing for their own quarries to be taken into consideration, the P&DR attempted to apply moral pressure to the Bridge Committee. The managing committee for erecting London Bridge, it was claimed, 'could never for an instant lend itself to sanction an act of such gross injustice to a respectable company and with flagrant injury as the exclusion or excessive limitation of competition'. It was insinuated that the situation, 'injurious to the general interests of the public', would be of interest not only to the City of London, but to H. M. Treasury. The letter concluded by urging that 'under these circumstances we feel that we are entitled to claim of you to pause and to examine well, before a resolution is finally taken'.[150]

Johnson's monopoly over what should have been the tramway's main source of income pushed the P&DR's managing committee to try and promote other extractive industries on the moor. In 1824 it was decided that 'in order to encourage every species of trade and traffic which may either directly or indirectly benefit the Company,' it would be desirable to insert a clause permitting landowners whose property adjoined the railway 'the liberty of prosecuting any mines and minerals, the lodes [seams] of which intersect the railway,' provided that the workings did not damage the railway itself.[151] Roborough Down, on the southern edge of the moor, was anticipated as becoming a focal point for the line, being ideally placed to attract mining produce, while the company also petitioned the Duchy of Cornwall to extend the privilege of coining tin to Plymouth, so that they could bring onto the railway the ore from the mines on Dartmoor.[152]

[150] Ibid.
[151] TNA: RAIL 566/1, P&DR Committee Meeting, 18 September 1824.
[152] TNA: RAIL 566/1, P&DR Committee Meeting, 18 January 1831.

While the railway company sought to find ways of extracting profit from the ground, far less priority was given to facilitating transport for the local population, with the company's minutes remaining silent on the matter. The development of passenger facilities would have been discouraged not only by the small population of the moor, but also by the prevailing view that increased passenger traffic was reliant on the industrial development of the moor, which had yet to occur. Nonetheless in June 1823, shortly before the railway was due to open, it was announced in the local press that during the summer a 'Market Caravan' would set out from Princetown to Plymouth, returning the same day. It was intended that 'every possible accommodation will be afforded to passengers, and the utmost care taken of their goods and parcels, which will all be secure from effects of the weather.'[153] The absence of any mention of this venture in the P&DR minutes suggests that this was an initiative by the people of Princetown, and it can be seen from the advertisement that it was primarily aimed at the local moorsmen; 'it is intended the prices of this conveyance, one without fatigue, and almost without perceptible motion, shall not be beyond the reach of those who are in the habits of attending Plymouth Market.' Despite the small scale of the operation, class distinctions were to be provided for, with passengers accustomed to more refined levels of accommodation being assured that 'there will be an apartment of a better sort, at a small difference in price – fire places in each.'[154] Despite the promise that further details of the Market Caravan would be forthcoming once the railway had opened, the delay in completing the line from Swell Tor to Princetown appears to have left the idea stillborn. The only other record of passenger services from this era are those connected with Johnson Brothers' granite works.[155] The local population were by no means completely side-lined by the railway, however. Besides granite, the chief freight carried by the tramway throughout its existence was manure, supplied to farms along the route. The line's ability to supply this commodity was regularly

[153] *Exeter Flying Post,* 19 June 1823, p. 1.
[154] Ibid.
[155] See Chapter 2, p. 130; Anna Eliza Bray, *A Description of the Part of Devonshire Bordering on the Tamar and Tavy*, Vol. 1, (London: John Murray, 1836) pp. 282-283.

used as a selling point for the tramway in the local press.[156] A special wagon, apparently owned by Lopes, was used for its transportation; however in a recurring theme, it appears to have been purloined by the tramway's main user. In October 1839 George Giles, agent to the Lopes family, sent a letter to F.W. Filmer of Johnson Bros., decrying that there had been 'unwanted liberties with the Farmers Help Rail Road Wagon, during the last year or two, with people not being honest enough to render an account of the use made of it. Arrears are wanted for its hiring, Toll Books could assist from 1st January 1838 to Lady Day 1839 when the wagon broke down.'[157]

The landowner's concern that tolls were owed to him raises questions over the role of the railway's directors. The company's two biggest shareholders were Sir Thomas Tyrwhitt and Sir Masseh Lopes. While Tyrwhitt's involvement had an element of altruism, from the start Lopes saw the P&DR as an opportunity for personal gain. At the first general meeting of the company, Lopes staked out his claim for the granite on his land, offering the company rights to unlimited quarrying from Walkhampton, subject to a royalty of 2d. per ton.[158] Despite initially agreeing to this low rate, the company subsequently decided that it had no authority to go into business as a stone merchant, and instead determined that it should exist primarily as a means of facilitating improvement of the moor.[159] This decision would lay the route open to Johnson Brothers' eventual monopoly of the stone. Lopes subsequently tried to capitalise on the tramway's own need for the material, and in doing so crossed paths with the P&DR committee, who recorded in their minutes that 'a demand for four pence per ton of granite used for fences having been made by Sir Masseh Lopes, the Committee do not feel justified in acceding to such demand.'[160] Lopes' original royalty agreement still had to be honoured by Johnson Brothers after the railway company sublet the granite rights to them, and

[156] *Sherborne Mercury*, 29 December 1834, p. 4; *Western Courier, West of England Conservative, Plymouth and Devonport Advertiser*, 21 July 1852, p. 8.
[157] Kath Brewer, *The Railways, Quarries and Cottages of Foggintor* (Newton Abbot: Orchard, 1997) p. 23.
[158] TNA: RAIL 566/1, P&DR Committee Meetings 20 and 27 September 1819.
[159] TNA: RAIL 566/1, P&DR General Meeting, 20 June 1820.
[160] TNA: RAIL 566/1, P&DR Committee Meeting, 21 January 1822.

thereafter Lopes' presence at committee meetings, either in person or more often through his nephew Ralph Franco, was generally focussed on ensuring that these royalties were paid, with Johnsons at one point amounting considerable arrears in granite dues.[161] Although Ralph Franco usually attended P&DR committee meetings in lieu of his uncle, the influence of the latter was regularly felt; when the company were applying for a significant loan, Franco requested that Masseh Lopes' name be substituted for his own in order to lend the application more credence.[162] With the death of Sir Masseh Lopes in 1831, Ralph Franco inherited the baronetcy and estate, changing his name to Lopes in the process.[163] Having only recently adopted the family identity, Sir Ralph became more reticent in allowing the P&DR to use the family name for its own political purposes. In 1832, while attempting to recover a subscription from a Mr Brown, the company used his name in order to lend more weight to its proceedings. This did not find favour with Lopes, who requested that the actions in his name be abandoned. Despite this, the company determined that as Lopes had been involved in originally facilitating Mr Brown's transaction, they had 'an undoubted right to the use of his name in enforcing payment', and that 'it would be losing sight of the interests of the company in acceding to such request'.[164] Company minutes show that by the mid-1840s the Lopes family were no longer actively involved as directors, a situation which remained unchanged when the company was reconstituted in 1865.[165]

The other key shareholder, whose name also gave the P&DR political leverage, was Sir Thomas Tyrwhitt. As the largest shareholder and instigator of the scheme, Tyrwhitt did not take the centre-stage role which might be expected. Although occasionally chairing meetings, Tyrwhitt was often absent altogether. On several occasions John Johnson Jnr.

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[161] TNA: RAIL 566/1, P&DR Committee Meeting, 12 October 1826.
[162] TNA: RAIL 566/1, P&DR Committee Meeting, 24 July 1820.
[163] 'Franco (afterwards Lopes), Sir Ralph, 2nd bt. (1788-1854)', in *The History of Parliament: The House of Commons 1820-1832*, David Fisher, (ed.), (Cambridge, Cambridge University Press, 2009), available at The History of Parliament https://www.historyofparliamentonline.org/volume/1820-1832/member/franco-sir-ralph-1788-1854, accessed 24 September 2021.
[164] TNA: RAIL 566/1, P&DR Committee Meeting, 3 July 1832.
[165] TNA: RAIL 566/2, Plymouth and Dartmoor Railway Company Directors and Proprietors Minutes 1865-1896.

acted as proxy for Tyrwhitt, even after questions had begun to be raised regarding Johnson Brothers' level of control.[166] This poses the question of Johnson Brothers' relationship with Tyrwhitt, both of whom had offices in London. It is possible that Tyrwhitt recognised that the firm presented the only realistic chance for the railway to be completed, and was willing to concede control in order for this to be achieved. The firm was not, however, the only London-based influence present within the company. Amongst the P&DR's shareholders, a considerable number of defaulters were based in the capital, and it was to these on which the blame tended to fall when the company found itself unable to pay bills. It is likely that many of these London subscribers were introduced to the scheme through Tyrwhitt; in August 1822 he was requested by the committee to 'induce his friends to pay up immediately the full amount of their subscriptions'.[167] While they may have initially provided the company with a degree of credibility, Tyrwhitt's professional connections gradually came into question, including the method by which they had apparently joined the company. In 1824 the committee wrote to Tyrwhitt, urging that they 'require without delay a full explanation' as to the circumstances under which he had signed the book of subscriptions for Charles Carpenter, Deputy Receiver for the Duchy of Cornwall, and Albany Savile, former MP for Okehampton, 'in order that the committee may be enabled to shape their proceedings against those gentlemen.'[168] These were not the only subscribers who were considered to be shirking their responsibilities. At a committee meeting in January 1824, concern was expressed over 'Sir Thomas Tyrwhitt appearing to be a very large defaulter', while it was further reported in April 1827 that Tyrwhitt owed £18 4s 5d in tolls.[169] This

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[166] TNA: RAIL 566/1, P&DR General Meetings 11 August 1823, 20 April 1824, 2 January 1827, 30 November 1827.

[167] TNA: RAIL 566/1, P&DR Committee Meetings 10 December 1821, 1 August 1822.

[168] TNA: RAIL 566/1, P&DR Committee Meeting, 29 March 1824; John Debrett, *The British Imperial Calendar and Civil Service List*, (London: Winchester & Son, 1819) p. 100; 'Savile, Albany (?1783-1831), of Sweetlands and Oaklands, nr. Okehampton', Devon, in *The History of Parliament: The House of Commons 1820-1832* David Fisher, (ed.), (Cambridge, Cambridge University Press, 2009), available at The History of Parliament https://www.historyofparliamentonline.org/volume/1820-1832/member/savile-albany-1783-1831, accessed 18 June 2020.

[169] TNA: RAIL 566/1, P&DR Committee Meeting, 7 February 1824; TNA: RAIL 566/1, P&DR Committee Meeting, 5 April 1827.

situation still existed in July 1832, at which point it was decided that there having already been several unsuccessful attempts to contact him, action would be taken against him and several other defaulters in order to recover the money.[170] The company was still attempting to contact Tyrwhitt in May 1834, apparently unaware that he had passed away during the previous February.[171]

Railway Ownership – 2

New Rails, New Agendas

When the notion of a new line to Princetown began to take serious root in the late 1870s, questions quickly emerged in the local press concerning who the new line would be built for, and who it would serve. This debate was enabled by the rise of regional newspapers, which had been in their infancy during the formation of the original tramway. The media helped concentrate the arguments for and against a new line, with the *Tavistock Gazette* demonstrating a particular agenda against the construction of a railway to Princetown. The prospect of a rejuvenated Princetown posed a threat to Tavistock, which had been declining in political importance. In 1868 Tavistock's Parliamentary representation had been reduced from two MPs to one, while the town would subsequently lose its status as a borough after becoming part of a county constituency in 1885.[172] Tavistock's status as a Liberal stronghold further fuelled the anti-railway stance. Railways were entangled in a wider debate over the preservation of common land and the rights of property, a debate which was tied in strongly

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[170] TNA: RAIL 566/1, P&DR Committee Meeting, 3 July 1832.
[171] TNA: RAIL 566/1, P&DR Committee Meeting, 22 May 1834; 'Tyrwhitt, Thomas (1762-1833), of Tor Royal, Princetown, Devon', in *The History of Parliament: The House of Commons 1820-1832*, David Fisher, (ed.), (Cambridge, Cambridge University Press, 2009), available at The History of Parliament https://www.historyofparliamentonline.org/volume/1790-1820/member/tyrwhitt-thomas-1762-1833, accessed 27 August 2019.
[172] Michael Steer, 'Tavistock as a Parliamentary borough, part 1 (1295-1688): index', available at https://www.genuki.org.uk/big/eng/DEV/Tavistock/Alexander1910, accessed 29 September 2020.

to the core Liberal principals of dismantling privilege, and which would have been a key feature of the town's political climate.[173] In contrast to the concerns in Tavistock, a meeting called by the Mayor of Plymouth in February 1878 expressed much feeling that a new railway would be of benefit to the Three Towns [Plymouth, Devonport and East Stonehouse]. Mr Hicks felt that 'they must consider the large pleasure traffic which would assuredly flow in the summer time', while Rev. Morris Fuller hoped that they could 'look forward to the time when the commercial men of Plymouth should lodge at Princetown in the summer, going to the town in the morning and back in the evening.'[174] While the work of the early improvers sought to bring civilisation to an uncultured land, the modernising of the railway represented a new age, in which the land itself would impart culture to the wider population. At a meeting held in Princetown it was stated that 'much had been said with regard to the climate of Dartmoor', and if it was more widely promoted the 'numbers who were in the habit of emigrating to Switzerland would find the health invigorating influences of Princetown equal to what was possible out of England.'[175]

That the line could be used by sightseers was by no means a concept new to the 1870s, the P&DR having also seen occasional use by tourists. However, during those early years, it was not necessarily the natural scenery which the railway's users had come to see. As Paul Readman has related, industrial landscapes exerted their own aesthetic appeal, with the cotton mills of Lancashire, ironworks of Shropshire and tin and copper mines of Cornwall all attracting tourist interest between the late eighteenth and early twentieth centuries.[176] The P&DR emerged at a time when landscapes were increasingly becoming the subject of romantic writing. In these works, the purely visual spectacle was supplanted by the

[173] M. J. Roberts, 'Gladstonian Liberalism and Environment Protection, 1865-76', *The English Historical Review* Vol. 128, No. 531 (2013) pp. 292, 321.
[174] *Western Morning News*, 12 February 1878 p. 4
[175] Ibid. 29 January 1878 p. 3.
[176] Readman, Storied Ground, p. 205.

emotional experience.[177] One such writer was historical novelist Anna Eliza Bray, who visited the moor in 1831 as part of a project to record the traditions of the area. During her explorations she decided to follow on horseback the route of the railway, which was 'naturally of a very monotonous character.' However, on approaching Yes Tor, Bray felt that 'the rail-road for once assumes a picturesque appearance… Some huts, one a blacksmith's shop, now presented themselves. And before it stood a vehicle, not much unlike a rude kind of vis-à-vis, with an awning. This I had observed passing on with some degree of rapidity before us. I conclude that in these carriages with iron wheels, though as cumbrous and perhaps uneasy as the scythed cars of the Britons, many pleasure-parties make excursions from Plymouth: for a man accosted me, and said that if I wished to see the works, Mr Johnson, or Thompson, or a person of some such name, would show them to me.'[178] Bray's experience illustrates how the industrial workings around Foggintor were capable of being an attraction in their own right, with Johnson Brothers attempting to capitalise on the interest. But more than this, she shows how contemporary understanding of the moor was framed by both ancient and modern interests. The modern granite works was not simply an intruder on the traditional scene she had come to document, but was an equally valid part of the moor. That the landscape could be enhanced by human intervention was a theme continued nine years later by James Rendel, when he surveyed his own mainline route across the moor. Rendel believed that 'its beauty would not only greatly add to the passenger traffic, but would lay open the country, and cause the whole district to be studded with ornamental residences, by which the value of property on the line would be

Anna Eliza Bray, 1834.
National Portrait Gallery

[177] Kelly, *Quartz and Feldspar*, pp. 56-77.
[178] Bray, *A Description,* pp. 179, 282-283.

enhanced, and the whole population benefitted.'[179] For Rendel, the moor's barren nature provided a further advantage to the scheme, the lack of enclosure alleviating the time and expense of having to acquire countless parcels of land and compensating the owners.[180]

Returning to 1878, not everyone viewed the new line as a positive development. As reported in the *Tavistock Gazette*, the proposed railway was a hot topic at the annual meeting of the Devonshire Association, W. F. Collier asserting that 'this railway if constructed would be an encroachment on the public rights of Dartmoor'.[181] The positive culture of industrialism which had been prevalent during the mid-nineteenth century, and which had enticed spectators to Johnson's granite works, began to be replaced towards the end of that century by a psychological deindustrialisation.[182] The expected increase in the population of Princetown, would, Collier warned, 'inevitably, at so high a level, pollute the water to an incalculable extent. It was not too much to state in the light of modern science that Typhoid fever at Princetown would be distributed with the water throughout the whole of the South Devon lying between the Tamar and the Dart, and by the agency of the water supply to shipping throughout the fleets of the Royal Navy and merchant service.'[183] Concern over this new industrialisation of the moor was further fuelled by the recent formation of a company to convert the peat beds on the north west of the moor into compressed fuel. These plans were deemed a 'monstrous encroachment on their rights as water drinkers', while of the railway it was considered that 'of all the ridiculous and absurd schemes ever floated this was the most absurd and ridiculous'.[184] The changing attitudes towards landscapes and the emergence of the preservation movement will be more fully explored in Chapter Four.

Besides fears over the environmental impact of a new line, there were also concerns from the moor's local population over who the real beneficiaries would be. The railway was

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[179] Rendel, *Report of a Proposed Line,* p. 15.
[180] Ibid. p. 17.
[181] *Tavistock Gazette*, 2 August 1878 p. 5; William Frederick Collier, 'Second Report of Committee on Dartmoor', *Reports and Transactions of the Devonshire Association,* Vol. 10 (1878) p. 111.
[182] Wiener, *English Culture*, 157.
[183] *Tavistock Gazette*, 2 August 1878 p. 5
[184] Ibid.

proposed at a time of heightened political sensitivity surrounding concepts of democracy. In addition to the recent extension of the franchise, the influence of landowners was gradually retreating, spurring new thoughts on the limits of landed property.[185] Common land gained a new significance, representing the right of the people to inherit the soil of their country.[186] The new railway threatened to disrupt this convention. In the *Tavistock Gazette* a resident of Walkhampton asked 'why to construct a railway for the benefit of the Prince of Wales and other landowners. …it seems to me that here is a case in which the greater part of the work should be performed as a duty by the landowners, as they to the greatest extent will benefit thereby.'[187] The implied industrial exploitation of the landscape, for the benefit of a few, also produced disdain; 'The principle adopted is extract as much as you can from Dartmoor and every other moor; but don't degenerate to that state which will involve a change of figures on the other side of the balance sheet.' The writer concluded by contending 'that the whole concern should have been constructed by the Duchy and Convict Department, and no appeal made to the poor little grubbers of the moor.'[188] These comments reflected broader concerns over land ownership, the rights of land users and the role of land itself, which would play a fundamental role in shaping the land preservation movement, and which will be discussed in Chapter Four.

Concerns that the new line would be a tool for the benefit of an elite were not limited to the popular press. As had been the case during the early days of the original tramway, the Lopes family attempted to ensure that the new construction was to their advantage. While the new railway largely followed the course of the original tramway, several sharp curves had to be eased to allow modern locomotives to traverse the line. For these deviation works to be carried out, the new railway required one mile of land belonging to Sir Massey Lopes, who agreed to exchange it for a now redundant section of the P&DR. The *Western Morning*

[185] K. Theodore Hoppen, *The Mid-Victorian Generation: 1846-1886* (Oxford: Clarendon, 2008) pp. 26-30.
[186] Paul Readman, *Storied Ground* (Cambridge: Cambridge University Press, 2018) pp. 108, 183.
[187] *Tavistock Gazette*, 8 February 1878 p. 4.
[188] Ibid.

News was keen to play up the charitable nature of this exchange, claiming that 'another landowner might have made the company pay for the land'.[189] Behind the scenes, however, Lopes was not considered to be so charitable. In August 1879 John Batten, a director of the P&DR, sent a confidential letter to the GWR's solicitor. In it Batten cautioned 'I want you to be most careful in dealing with Sir M Lopes… who will put you in a hole if he can and who will try to get from you accommodation works far in excess not only of the value of the lands but of the needs of the district.'[190] The land which Lopes wanted in compensation was of little value to himself, but of inconvenience to others. Batten stressed that 'the portions of the tramway to be given to Sir Massey should only be there where he has lands touching the line. It seems to me that it would be unfair to Lady Ashburton and other landowners to allow Sir M. L. to have a few perches of land in the middle of their farms.' It was suggested that for the GWR to maintain the initiative, they should send 'at once' a plan to Lopes showing the land required by the company, with the assertion that they could not issue tenders for the work until an agreement was reached. Batten felt that such a move would bring a speedy resolution, Lopes being 'so anxious to have the works commenced that this will hasten his movements.' Batten felt that as 'the quarries are not being extensively worked now… this is just the time to make the R[ai]l[wa]y'; however even here Batten insisted that 'care must be taken not to give any rights to Sir M. with respect to the quarries which will interfere with the contractors works during the making of the line.' Batten closed his letter by cautioning 'if you put a spade into the ground before you have settled with the landowners – look out for squalls.'[191] The GWR already had some experience of Lopes' methods. During initial negotiations with the company, Lopes had offered to subscribe £8,000 of shares, on the condition that they would only be purchased *after* the line had opened, rather than before or during construction, a condition which the GWR board declined to accept.[192] Lopes did however successfully ensure that a clause was included in the Princetown Railway Act,

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[189] *Western Morning News*, 15 February 1878 p. 4.
[190] TNA: RAIL 578/3, John Batten to R. Nelson, 9 August 1879.
[191] Ibid.
[192] TNA: RAIL 578/3, Minutes from GWR Board meeting, 22 May 1878.

restricting new buildings on his former land to those solely for railway use. It was stipulated with particular emphasis that 'no hotel tavern public house or other place of public resort or refreshment rooms' could be constructed on the land that Lopes had transferred, without his consent. Lopes likely objected to the developers being able to increase the value of the land, as this restriction also applied to any other land purchased by the company which immediately joined his estate.[193]

Following the opening of the railway in August 1883, the question of the railway's financial beneficiaries was thrust into the light. At the first meeting of shareholders following the opening, it was announced that in the twenty weeks the line had been operational, 13,000 passengers and between 3,000 and 4,000 tons of merchandise had been carried.[194] Any optimism about the success of the line was soon quelled, however. Such was the slow take up of traffic that only twelve months after opening, concerns were being expressed in the Directors' report that 'these results are not encouraging, and do not realise the expectations which the Directors were induced to entertain from the interest evinced locally in the promotion of the line.'[195] Twelve months later the local press reported that the 'Princetown Railway shareholders will not be jubilant when they receive the report of the directors for the past half year', continuing that in view of the calibre of the line's directors, 'it is almost comical to learn that… the nett profit has been £187.'[196] In the report, Princetown Railway chairman Sir Daniel Gooch, who was also chairman of the GWR, laid the blame squarely at the feet of the local population, writing that this 'very unsatisfactory' result was 'not what the Directors had a right to expect from the pressure put upon them to construct the line. They again suggest that local shareholders should exert themselves to increase the traffic.'[197] With the GWR taking seventy percent of traffic receipts in return for working the line, the

[193] TNA: RAIL 578/3, Memorandum of agreement between Princetown Railway Directors and Sir Massey Lopes, 23 July 1878, p. 3.
[194] *Tavistock Gazette*, 29 February 1884 p. 5.
[195] TNA: RAIL 1110/385, Half-yearly report of the Princetown Railway Directors, 5 August 1884.
[196] *Western Morning News*, 13 August 1885, p. 4.
[197] TNA: RAIL 1110/385, Half-yearly report of the Princetown Railway Directors, 5 August 1885.

Princetown Railway found itself unable to cover the interest payments on the company's loan. This loan had been used to cover the additional costs of construction which the GWR had themselves instigated. The Princetown Railway therefore found itself lumbered with an ever-increasing debt.

In August 1888 Sir Daniel Gooch retired from the board, Massey Lopes taking over the position of chairman.[198] Upon Lopes becoming chair moves were instigated for the line to be taken over by the GWR, the *Western Morning News* reporting shortly before the February 1889 half-yearly meeting that 'there is no advantage to prolonging the existence of this company as a separate undertaking'.[199] Despite an increase in granite traffic, significant numbers of excursionists had not materialised, while 'the traffic connected with the Prisons Establishment is not what might have been expected, and there do not appear many resources in the locality for much further development.'[200] The failure of a large-scale organisation such as the GWR to bring renewed prosperity to the moor had not passed unnoticed by local businessmen. At the September 1885 half-yearly meeting of the Plymouth and Dartmoor Railway Company, then still operating in the Plymouth area, it was 'regretted' that the portion of line sold to the GWR had not paid any dividend on its shares, whereas 'when this company worked that branch with horses they had a net revenue of £400 or £500 a year from it.'[201] Furthermore it was 'a curious fact that while the London and South Western Railway Company were able to make their branches in Devon and Cornwall pay 4 or 4½ per cent, the Great Western Company had not succeeded in giving the shareholders of their Devon and Cornwall branches any dividend on those branches.'[202] The discontent felt by shareholders, that 'there seems no prospect whatever of any return on their subscription', was expressed in a letter sent by the Princetown Railway secretary to the

[198] TNA: RAIL 1110/385, Half-yearly report of the Princetown Railway Directors, 2 August 1888.
[199] *Western Morning News*, 20 February 1889, p. 8.
[200] Ibid.
[201] *The Cornish Telegraph*, 3 September 1885 p. 7.
[202] Ibid.

GWR's general manager in 1889.[203] The GWR was held responsible for the excess in capital expenditure during construction, resulting from their demands for improvements in construction above the original specification. As the company which worked the line, the GWR were then benefiting from the reduced cost in maintenance, leaving the Princetown Railway Company struggling to pay the interest. The situation had been worsened by the Princetown company only receiving half of the expected £5,000 from the Convict Department. As the only branch in the locality not wholly owned by the GWR, the Princetown directors felt 'it seems quite useless it should have a separate existence' with 'a separate board nominally but which has no distinct power.' The directors therefore asked the GWR to consider buying up the PR's stocks and consequently take complete control of the line, or, failing that, provide some relief from the 'exceptionally onerous' terms of the working agreement.[204] Despite several attempts, two years later Lopes reported to the Princetown board that 'negotiations with the Great Western for taking over the line have not been favourably entertained by that company.'[205]

The failure of the railway to bring renewed prosperity to the moor led to interventions by influential locals, who considered the railway's primary role as serving the local interest. As the nineteenth century ended, the firm of Pethick Brothers, who worked the quarries at Foggintor, actively campaigned to have the line further developed. Although quarrying activity had been present along the length of the railway since its inception, it was not as fully integrated into the line's operation as might be expected. In 1899, having secured a large contract for Keyham Dock, Pethick Brothers wrote to the GWR in anticipation of the increased activity. They requested that a platform and shelter be erected either at Foggintor or Swell Tor, and for one train a day, each way, to stop there, for the benefit not only of the quarry workers, but also the 'large number of residents in the neighbourhood of the

[203] TNA: RAIL 578/3, A. L. Jenkins to Henry Lambert, 30 January 1889.
[204] Ibid.
[205] TNA: RAIL 1110/385, Half-yearly report of the Princetown Railway Directors, 5 February 1891.

quarries.'[206] Pethick Brothers viewed their quarries as part of an integrated regional industry, rather than as a separate private enterprise, and the company were quick to point out that the quarries at Merrivale Bridge, under the management of C. L. Duke, would also benefit from the new platform. This stance was reaffirmed when a subsequent attempt at lobbying for a platform saw the GWR try to include a clause restricting its use solely to the employees of Pethick Brothers. Pethicks responded by stating that it would be in the best interests of the Princetown Railway Company for the workmen of Duke's quarries to also be allowed access, as well as the other residents in the district.[207]

The new platform was one of a number of suggestions put forward by Pethick Brothers to improve the fortunes of the line, the firm being concerned that 'if some alteration is not made to increase the traffic it is not likely that the line will ever pay.'[208] The firm's suggestions for increasing traffic were motivated in part by a desire to further their own business, particularly as at that time they were seeking a reduction of the GWR's cartage rates. Public dissatisfaction with the railways' social role often focussed on freight charges. Britain's freight rates were seen to undermine the country's competitiveness on the international stage, being comparatively high compared to those of other countries. In January 1884 *The Times* complained that 'the prosperity of a district is not now, as formerly, to be measured by the equability of its climate, the fertility of its soil, and the laborious industry of its people, so much as by the high or low rates under which the railways by whom it is served allow it to reach the markets of the world.'[209] It was therefore relatively straightforward for Pethicks to get the Princetown Railway shareholders on side. In 1902 the shareholders presented the GWR with their own objections to the freight charges, which for granite averaged 1¼d per ton per mile. This was considered excessive, and indicative of the GWR's lack of concern for the region's interests. The shareholders protested that the London & North Western Railway

[206] TNA: RAIL 578/3, Pethick Bros. to GWR Chief Goods Manager, 24 January 1899.
[207] TNA: RAIL 578/3, Pethick Bros. to the General Manager of the GWR, 9 July 1902.
[208] TNA: RAIL 578/3, Pethick Bros. to GWR Chief Goods Manager, 24 January 1899.
[209] D.C.H. Watts, 'On the Causes of British Railway Nationalisation: A Re-examination of the Causes, 1866-1921', *Contemporary British History* Vol. 16, No. 2 (2002) p. 4.

charged only ½d for the same traffic, a figure which was also charged by the railways of South Wales for the transportation of coal from collieries to wharves.[210]

However, despite their desire for a reduced rate, Pethick Brothers' interest in the line was not solely motivated by their own financial pursuits. John Pethick, the firm's proprietor until handing it over to his sons in 1887, had been a member of Plymouth Borough Council since 1874, and served as mayor of the city from 1898-1900.[211] Outside of his formal duties he was well known in the area for his philanthropic activities, and in view of his subsequent lobbying amongst the railway's shareholders, his hand would have been behind Pethick Bros.' approaches to the GWR. Pethicks saw the line as the lynchpin to enable improved prosperity for the region, an asset which was currently being squandered by the GWR. They attempted to tap into broader cultures, such as the emerging leisure market, in the hope of invoking the interest of the larger company. It was suggested that a Sunday train service should be introduced all year round, there being 'many persons who would like to go to Princetown in the winter as well as in the summer'. Such a situation would have been of particular benefit to Pethick Bros. as it 'would no doubt induce persons to build houses in the district'.[212] Pethicks were keen to legitimatise their case by illustrating their suggestions with real examples, and in doing so undermine the GWR's obstinance towards developing the line. In pushing for better accommodation for their workforce, Pethicks suggested that the men on Dartmoor 'would no doubt avail themselves of the opportunity of taking monthly or weekly tickets', citing the experience of an Aberdeenshire granite quarry next to the Great North of Scotland Railway, which had been

John Pethick, 1900.
The Box, Plymouth

[210] TNA: RAIL 578/3, Memorandum to GWR Directors from Princetown Railway shareholders, 1902.
[211] Moseley, Brian, 'Who was who in old Plymouth – John Pethick (1827-1904)', available at Old Plymouth http://oldplymouth.uk/Who%20was%20Who%20in%20Old%20Plymouth-Pethick%20John%201827%201904.htm, accessed 3 September 2020.
[212] TNA: RAIL 578/3, Pethick Bros. to GWR Chief Goods Manager, 24 January 1899.

supplied with both a platform and cheap monthly tickets for its workers.[213] The Cheap Trains Act of 1883 had enabled the Board of Trade to compel companies to provide workmen's trains; however the railways were often reluctant to extend facilities for workmen, fearing they could potentially drive away the more profitable higher-fare traffic.[214] The GWR's response to Pethick Brothers' various suggestions was less than enthusiastic. T. I. Allen, the GWR's Superintendent of the Line, replied that there was a 'general objection to passenger trains being stopped on such a steep gradient', while 'in view of the comparatively small number of men who would be likely to avail themselves of the convenience… and the very low fares you suggest would be essential, I certainly should not be justified in recommending the company to incur the expense.'[215] Sunday working was also objected to on the grounds that it would only lead to further loss, as well as depriving the railway staff of their Sunday off. Pethicks were not easily deterred, and in replying to Allen they attempted to shift emphasis more firmly away from their own activities and on to the wider social benefits that a new platform could provide. They drew on the revival of interest in the 'condition of England' which had been increasing since the 1880s, a particular emphasis being placed on health, housing and poverty.[216] Pethicks cited the national proliferation of sanatoriums, which had emerged in the face of Tuberculosis, as evidence that Princetown was an area on the cusp of development, and consequently, they argued, all the more reason to ensure that its advancement was not hindered by a lack passenger facilities. The firm felt 'confident that the neighbourhood of Princetown will undoubtedly be selected as a site for such a Sanatorium, on account of its exceptionally high reputation amongst the medical profession as a health-giving resort, particularly as regards consumptive complaints.'[217] With Pethick Brothers continuing to push for a platform, Allen discussed the matter with the company's divisional superintendent in Plymouth, and conceded to Pethicks that it was 'probable the Directors

[213] TNA: RAIL 578/3, Pethick Bros. to GWR Chief Goods Manager, 24 January 1899.
[214] Gourvish, 'Railways 1830-70', p. 101.
[215] TNA: RAIL 578/3, T. I. Allen to Pethick Bros., 26 April 1899.
[216] David Cannadine, 'The Present and the Past in the English Industrial Revolution 1880-1980', *Past & Present*, Vol. 103, 1 (1984) p. 133.
[217] TNA: RAIL 578/3, Pethick Bros. to T. I. Allen of the GWR, 13 May 1899.

would not object to the accommodation being provided if you are prepared to bear the cost'.[218] That no platform subsequently materialised suggests that Pethick Brothers were none too keen on this proposal.

The subject of a workers' platform emerged once more in the autumn of 1901, again at the instigation of Pethick Brothers who had secured another large granite contract. This time they attempted to approach the GWR through the board of the Princetown Railway, in the hope of gaining more leverage. To this end they had already called upon the support of both Tavistock MP J. W. Spear, and Henry Edward Duke, Conservative MP for Plymouth and brother of Merrivale Quarry owner C. L. Duke.[219] With Pethicks now accepting that they would foot the bill for the £340 cost of construction, the GWR initially proved more open to the provision of a platform at Foggintor (by this point known as Royal Oak siding); however matters subsequently stalled after the GWR attempted to impose a string of conditions on the firm, to the extent that Pethicks were expected to cover the cost of uniforms and wages of any GWR staff employed at the platform. It was lamented by Pethick Brothers that these conditions, coupled with the 'excessive fare' demanded by the GWR for the proposed workmen's tickets, 'appear to us to be framed in a spirit entirely adverse to the interests of the Princetown Railway.'[220]

By this stage there was considerable agitation among Princetown Railway shareholders about the performance of the railway, and later in the year, following a refusal by the GWR board to meet a deputation of shareholders, a meeting was held in Plymouth, from which a memorandum was subsequently presented to the GWR. The meeting saw John Pethick take a prominent role, during which he recounted the difficult negotiations his firm had faced with the GWR. The memorandum presented the GWR with a number of key points, in which the provision of a platform was portrayed as a potential make-or-break for the further

[218] TNA: RAIL 578/3, T. I. Allen to Pethick Bros., 27 June 1899.
[219] TNA: RAIL 578/3, Pethick Bros. to Secretary of the Princetown Railway, 12 August 1901 and 9 April 1902.
[220] TNA: RAIL 578/3, Pethick Bros. to General Manager of the GWR, 9 July 1902.

development of the quarries, and of the success of the line as a whole.[221] In addition to this, the memorandum urged that 'tourist traffic should be more encouraged than it has been hitherto', a suggestion being that 'the natural attractions of places on the line [be] advertised in the G.W.R. Co's carriages' as had been done for other areas on the GWR's system. There was also discontent that despite various announcements made during the line's promotion that the company would secure the conveyance of convicts, in the event the prisoner traffic had been monopolised by the London & South Western Railway, a situation which the disgruntled shareholders attributed to the poor train service on the Princetown branch. The lack of convenient trains, particularly early in the day, meant that a 'great portion' of the passenger and goods traffic was being carried by road. The performance of the GWR goods services which did run was also considered to be lacklustre, with waggons loaded at Plymouth often taking two days to reach the quarries on Dartmoor, a situation which 'frequently necessitates goods being sent by road'. Despite the agitation from shareholders, the status quo with the GWR remained. A platform would not appear in the vicinity of the quarries until 1928, by which time ownership of the railway had passed fully to the GWR. When the platform did arrive, it was built to serve tourists, rather than benefit quarry workers. The development of tourism on Dartmoor, and the reasons behind the GWR's change in attitude will be more fully explored in Chapter Four.

The failure of a platform to materialise at the turn of the century reflected not only the GWR's obstinate refusal to invest in the line, but also the subsequent departure of leading local figures. John Pethick died suddenly in 1904, with Pethick Brothers undertaking their final contract in 1910. With his passing the railway lost a champion for its further development, an event which was to be shortly followed by the departure of another key figure. Sir Massey Lopes had been trying to wind down his own involvement for some time, announcing at the Directors' half-yearly meeting in February 1891 that 'he would be glad to be released from

[221] TNA: RAIL 578/3, Memorandum to the Directors of the GWR from the Princetown Railway shareholders, 1902.

his functions'.[222] It would not be until August 1898 however that he relinquished the role of chairman, only fully retiring from the board 'in consequence of advancing years' in early 1907.[223] Such was the influence and esteem in which Lopes was held, that the Directors' half-yearly report briefly broke character from its usual dry formality to record that the board 'with much regret… have lost in him a valued colleague'.[224] His place was taken by his son, Henry.

The retirement of Massey Lopes and death of John Pethick marked a watershed for the railway. Throughout the nineteenth century the railway to Princetown had served as a vehicle for the Lopes family as they attempted to build their standing within the British aristocracy. During the earlier years of the tramway the Lopes family had played a very visible role in its development, Sir Manasseh Masseh Lopes even attempting to use the opportunity to strike out as a granite dealer. Proving themselves as English industrialists helped the family offset antisemitic prejudice and the stigma of being new money, their recently purchased estate doing little to subdue the adverse social status attached to their colonial background. In 1850 the *Economist* openly criticised capitalists who blatantly sought to acquire land in order to further their status; however over time this attitude mellowed. By 1870 the same newspaper positively encouraged such moves, which made the purchaser 'a greater person in the eyes of most people.'[225] Consequently, by the time of Massey Lopes' retirement the family's position had become more legitimatised, and the need to be seen actively engaged in physical developments was no longer as acute. Attitudes towards the involvement of the landed gentry in industrial matters had also changed; the reputation of the businessman going into decline as an innate suspicion of material and technological development led to industrialism becoming excluded from concepts of Englishness.[226] As

[222] TNA: RAIL 1110/385, Half-yearly report of the Princetown Railway Directors, 5 February 1891
[223] TNA: RAIL 1110/385, Half-yearly reports of the Princetown Railway Directors, 4 August 1898 and 7 February 1907.
[224] TNA: RAIL 1110/385, Half-yearly report of the Princetown Railway Directors, 7 February 1907.
[225] Wiener, *English Culture,* p. 12.
[226] Ibid. p. 5.

such, despite his position on the board, Massey Lopes' public involvement with the railway faded away, and he instead assumed the role of a background facilitator; when he was succeeded by his son, the family's presence was felt even less.

Railway Ownership – 3

The Long and Short Arm of the State

The episode of the workers' platform, where local entrepreneurs attempted to take the initiative in the wake of corporate apathy and reduced aristocratic intervention, illustrates the wider questions of ownership which surrounded railway development. The second half of the nineteenth century, and particularly the final quarter, witnessed an increasing aristocratic presence on railway boards. A study of the GWR board members has shown that the majority came from families with a high social standing, being recruited for their political connections and influence which would be of benefit to the company.[227] The role of directors was not simply to protect shareholders interests, but to act as mediators between the railways and other interests.[228] It is therefore not surprising that Massey Lopes became a director of the GWR during this period. Despite the construction of the Princetown line being largely a strategic move by the GWR to block the encroachment of the LSWR, it followed the typical pattern of railway promotions, which were generally projected as civic enterprises, representing a single town, or a group of towns along a route. Businessmen were frequently influenced by social motivations, such as social sympathies, local pride and chauvinism, and among the board of the Princetown Railway were three baronets and two MPs.[229] As the twentieth century progressed, however, the trend of having a local community focus declined

[227] James Taylor, 'Business in Pictures: Representations of Railway Enterprise in the Satirical Press in Britain 1845-1870', *Past & Present*, 189 (2005) p. 126.
[228] Gerald Crompton, 'Efficient and Economical Working? The Performance of the Railway Companies 1923–33', *Business History* Vol. 27, No. 2 (1985) p. 227.
[229] Ibid. p. 237; *Western Morning News*, 13 August 1885, p. 4.

across the larger British industries. In 1905, of the thirty-five largest companies, eighty percent had regional headquarters; by 1935 only half could claim to be based outside the capital.[230] When Massey Lopes retired from the GWR board in 1904, his place was not taken by his son; thereafter decisions on the line were increasingly made from a broader regional, or national basis.[231]

While the local population attempted to persuade the GWR to tailor the line more specifically to their needs, a wider debate existed as to the role of railways and to whom control of them should lie. The desire for the efficient working of railways created a problematic conflict of interest for parliament. The monopolistic nature of railway companies, with their propensity to amalgamate, aided efficiency but contrasted with Parliament's desire for competition to exist within trade and industry. After 1866 a public debate emerged concerning ownership of the railways, and whether it should lie within the private or public sphere. The period from the 1860s onwards had seen a growth in public ownership, such as the nationalisation of the telegraph system in 1868, while there had also been a growth in the number of public utilities owned by local governments.[232] While ownership of the railways continued to remain private, greater emphasis came to be placed on their social role, the size and visibility of railways guaranteeing that they were subject to public scrutiny. During much of the nineteenth century there had been strong opposition to state interference in the railways, not only from the railway companies themselves but also from within the government, owing to concern over the damaging effects it could have on free enterprise. From 1868 onwards, however, the state began to play a greater role in their regulation, the number of accidents both to passengers and staff, and their widespread reporting in the press, having created public concern which supported and legitimised such moves.[233] The 1868 Regulation of Railways

[230] Crompton, 'Efficient and Economical Working?' p. 256.
[231] Sidney Lee (ed.), *Dictionary of National Biography – Second Supplement Vol. 1* (London: Smith, Elder, 1912) p. 479.
[232] Watts, 'On the Causes', p. 2.
[233] R. Harrington, 'Railway Safety and Railway Slaughter: Railway Accidents, Government and Public in Victorian Britain', *Journal of Victorian Culture* Vol. 8, No. 2 (2003) pp. 201, 203.

Act intended closer government supervision of railways through its requirement for the provision of accurate accounts and statistics, allowing a check to be kept on their efficiency of operation. Greater controls over the inspection of railways were introduced in 1871, with compulsory reporting of all accidents involving passenger trains as well as any likely to cause loss of life or personal injury.[234] It was this increased interest in safety which had led to the delay in opening of the new Princetown Railway, after the Board of Trade inspector concluded that with various details incomplete, its opening 'cannot be sanctioned without danger to the public using the same.'[235] In contrast to the operations of its predecessor, the new Princetown Railway came under regular scrutiny in the press; even before the line had been opened, deaths during construction were being publicly reported, while within a month of the line's opening the railway suffered its first staff fatality, when William Packer was killed during shunting at Princetown.[236]

Public concern with the railways was not limited to their safety. The economic insecurity which marked the last third of the nineteenth century saw a growing belief that national prosperity depended in part on the way the railways were run.[237] It was no longer acceptable for a company to go about its business in its own way as the P&DR had done. The organisational setup of the Princetown Railway, being ostensibly a small company, but controlled by a much larger organisation, was symptomatic of the problem. The increasing amalgamation of railway companies led to a government investigation in 1909 to determine whether these mergers were in the best interests of the public. The report, published in 1911, concluded that 'the growth of cooperation and the more complete elimination of competition are accepted as inevitable', and 'that the balance of advantage not only to the railway companies, but also to the public, would be found to attach to a properly regulated extension of cooperation rather than a revival of competition.'[238] The question of ownership

[234] T. Barker and C. Savage, *An Economic History of Transport in Britain*, (London: Hutchinson, 1974) p. 92.
[235] TNA: RAIL 578/3, Colonel Yolland to Princetown Railway, 16 July 1883.
[236] *Devon Evening Express*, 12 September 1883, p. 4.
[237] Watts, 'On the Causes', p. 9.
[238] Barker and Savage, *An Economic History*, p. 145.

was also raised through the capital structure of the railways, which has subsequently been described as being extremely top-heavy.[239] There were contemporary concerns that the structure reduced the potential for internal criticism, desensitising the railways' leadership to outside forces. Of those with a capital stake in the railways, the ordinary shareholder, who was directly dependent on the level of net revenue, increasingly formed a minority, while the majority of shareholders enjoyed the protection of either fixed interest or other prior charge securities, being well cushioned against poor trading results.[240] The local shareholders of the Princetown Railway, to whom the GWR was not answerable, had little prospect of inciting any change. As was Pethick Brothers' experience, attempts at lobbying the GWR for an improvement in service rarely met with success.

The outbreak of the First World War galvanised action over the question of railway ownership. The 1871 Regulation of the Forces Act, which had first led the state to focus on Dartmoor as a site for military activity, was used in 1914 to bring Britain's railways under government control, with the aim of ensuring they were used as a complete unit, and in the best interests of the nation. Consequently, the Princetown Railway became one of 130 companies to come under direct state control. As the war progressed the advantages of running the railways as a unified network became more evident. The depletion of staff which had resulted from conscription, together with the paucity of other resources, had forced the railways to economise, the results of which were aided by compulsory inter-company cooperation. The practical experience gained during the war confirmed the benefits of reduced competition across the railway network.[241] Despite the Princetown Railway forming only a very small part of the railway system under state control, it did not disappear from government or public consciousness. Instead, the war's influence on Britain's prison demographic brought fresh attention to the line, and in the process, placed the branch at the centre of a debate over who the railways should be serving. The line's role in the war effort

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[239] Crompton, 'Efficient and Economical Working?' p. 231.
[240] Ibid. p. 227.
[241] Barker and Savage, *An Economic History*, p. 145.

became politically charged in the wake of conscription, the fall in the convict population leading to the repurposing of Dartmoor Prison, in Spring 1917, to house conscientious objectors.[242] In the House of Commons, Sir Clement Kinloch-Cooke regularly expressed concerns that the conscientious objectors held at Princetown were not receiving treatment that accorded with their criminal status. In May 1917, after learning that eight men had travelled from Princetown to Minehead for work, Kinloch-Cooke asked the Home Secretary 'whether these men were allowed to travel with ordinary passengers; whether they took with them bicycles; whether free tickets were given for the bicycles; whether the porters on the railway stations were required to wheel the bicycles'.[243] Questions regularly arose as to whether the railways were charging conscientious objectors for the use of their trains; in May 1917 it was reported in the House that £580 17s. 3d. had been spent by the government in covering the fares of objectors based at Princetown.[244]

In the immediate post-war period, the railways were in a somewhat chaotic state; wagon shortages had resulted in a mass accumulation of goods waiting to be transported, while the government's sanctioning of wage increases led to the companies claiming they could not afford to pay staff overtime to deal with the backlog. Amid much public discontent, freight rates and passenger fares rose significantly in order to offset the increased cost of labour, which had doubled over the course of the war.[245] Gerald Crompton has suggested that many of the smaller railway companies would have been unviable at post-war levels of cost, and to maintain the railway network at its current size would have required a contribution from the more successful railways in order to maintain the status quo.[246] Prior to 1918 there had been strong support within the Liberal party for nationalisation. Yet despite the war having led the

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[242] Report of the Commissioners of Prisons and the Directors of Convict Prisons, (London: H.M. Stationary Office, 1917) p. 12.
[243] Hansard HC Deb (17 May 1917) Vol. 93 col. 1767.
[244] Hansard HC Deb (9 May 1917) vol 93 col. 1048.
[245] Watts, 'On the Causes', p. 20.
[246] Gerald Crompton, 'The Railway Companies and the Nationalisation Issue 1920-50' in Robert Millward and John Singleton (eds), *The Political Economy of Nationalisation in Britain, 1920-1950* (Cambridge: Cambridge University Press, 2002) p. 116.

government to intervene in railway operation, the post-war era did not see this control become permanent. After 1918, the growing electoral support for Labour dampened enthusiasm within the Liberal Party for such a blatantly socialist policy, as the need to retain Conservative support within the coalition government took precedence.[247] The shift away from nationalisation also reflected a desire to return to the normalcy of pre-war years, which necessitated a re-assertion of the principles of laissez faire.[248]

The threat of large-scale social unrest did however help instigate a moderate policy of social reform. While the government stopped short of bringing the railways into public ownership, they nonetheless instigated a large-scale amalgamation under the 1921 Railway Act, the result of two years of debate, during which time the implementation of nationalisation was considered but rejected.[249] The Act led to the consolidation of the vast majority of Britain's railway into four regionally-based companies; while three of these were newly formed organisations, the GWR's monopoly over the area it served allowed it to carry on much as before, the company absorbing those companies within its catchment area. As a result, the Princetown Railway entered GWR ownership on 1 January 1922.[250]

The 1921 Act represented an unprecedented occurrence of state intervention in a privately owned industry; the *Railway Gazette* considered the Act to be a government attempt at 'Nationalising the railways without paying for them'.[251] While the GWR had previously shunned any local responsibility to the Princetown area, the reorganisation of Britain's railways after the war brought a renewed focus on their social accountability. The Act also aimed to reinforce national economic identity. The railways were responsible for providing a service whose cost and quality had major implications for other industries, which collectively made a far greater contribution to the national economy than the railways alone.[252] The

[247] Watts, 'On the Causes', pp. 15, 24.
[248] Ibid. p. 22.
[249] Barker and Savage, *An Economic History*, p. 147.
[250] Hansard HC Deb (10 July 1922) Vol. 156 col. 833.
[251] Geoffrey Channon, 'The Great Western Railway under the British Railways Act of 1921', *The Business History Review*, Vol. 55, No. 2, (1981) p. 188; Crompton, 'The Railway Companies' p. 117.
[252] Crompton, 'Efficient and Economical Working?' p. 225.

declining confidence in the British economy which persisted during the last quarter of the nineteenth century saw transport costs emerge as an increasing source of concern to those using freight services. For many years the reluctance of the railway companies to reduce their rates had raised questions over not only their power but also their social role.[253] As seen earlier, Pethick Brothers were unable to persuade the GWR to give them a more favourable rate for granite. Their concern had been felt by other traders in the region for some years; testifying at the Select Commission on the Sea Fisheries of 1893, John Little, a trawler owner from Plymouth, spoke for the fishermen in his area, emphatically stating that: 'the railway rates kill us in the West of England; we are under the Great Western Railway Company, who are continually raising their rates, but the price of the fish does not increase.'[254] The 1921 Act prevented the companies from increasing freight rates unless their net returns dropped below a specific level, and removed their ability to grant preferential rates. Both these areas had long been a subject of dispute between traders and the railway companies; by introducing legislation which favoured the former, the government was able to alleviate criticism that the large-scale amalgamations would leave traders at the mercy of a monopolistic railway industry.[255] Under pressure to make a contribution to the nation's economic recovery, the newly formed companies responded by introducing a rate reduction in 1923.[256] For Dartmoor's granite industry however, this change came too late to have any real effect, the quarries having already gone into terminal decline.

With the GWR now wholly responsible for the branch, developing revenue assumed a much greater priority. The collapse of the granite industry and the circumstances surrounding its failure meant that the fate of the line's chief freight traffic was largely out of the hands of the railway company, and consequently developing passenger traffic became the focus of attention. While previous local attempts at petitioning the GWR to increase passenger

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[253] Watts, 'On the Causes', p. 3.
[254] Robert Schwartz, 'The Transport Revolution on Land and Sea: Farming, Fishing, and Railways in Great Britain, 1840-1914', *Journal of History of Science and Technology*, Vol. 12, No.1 (2018) p. 122.
[255] Watts, 'On the Causes', p. 26.
[256] Crompton, 'Efficient and Economical Working?' p. 226.

facilities had met with a lukewarm response, within a few years of the line coming fully into GWR ownership two new passenger halts had been opened. The first, opened at Burrator in February 1924, initially attempted to capitalise on the needs of workmen employed in enlarging the nearby reservoir, but was opened for regular passenger use in May 1925. It was followed by King Tor Halt in March 1928, which despite its name, was actually adjacent to the Foggintor granite works. A final halt was opened at Ingra Tor in March 1936.[257] Following the introduction of the eight-hour day in 1919, the GWR's wage bill had been significantly increased, resulting in a focus on minor cost-cutting exercises, a situation compounded by the trade downturn of the late 1920s.[258] The new platforms were consequently unstaffed, being mainly intended as pickup and drop-off points for ramblers, as the GWR attempted to tap into this newly emerging tourist market. To this end they also ran several excursions to Princetown during the mid-1930s.[259] These moves were not just for the financial benefit of the company or the social benefit of the locality. The railways were widely perceived as lacking enterprise in attracting traffic in the face of competition, a situation born from their years of monopoly. In 1930 the Royal Commission on Transport criticised the railways' apathy, stressing they had 'in some ways insufficiently studied the needs of the public and… their policy had become unduly conservative.'[260] Moves by the GWR to tap into tourist cultures demonstrated that they still possessed initiative, providing the company with a firmer footing on which to negotiate rate reductions.

The final stage of the railway's ownership occurred with the emergence of a Labour government in the immediate aftermath of the Second World War. The Labour Party's policy for the railways had been initially set out in its 1932 publication *The National Planning of Transport*, in which it was intended that the railways, docks, canals and long-distance haulers would come under public ownership.[261] Despite this, the economic problems of the

[257] Kingdom, *The Yelverton to Princetown Railway,* pp. 87-88.
[258] Adrian Vaughan, *The Great Western at Work* (Sparkford: Patrick Stephens, 1993) pp. 78, 155.
[259] Kingdom, *The Yelverton to Princetown Railway*, p. 112.
[260] Barker and Savage, *An Economic History*, p. 159.
[261] Bagwell, *The Transport Revolution,* p. 292.

inter-war period focussed the party's attention away from nationalisation.[262] As had been the case during the previous conflict, the Second World War saw the railways come under state control, the level of administrative planning during this period providing the template for public ownership and planning in the post-war era.[263] Following the party's victory at the 1945 general election, its post-war commitment to economic planning and reconstruction saw the government undertake large-scale nationalisations. The Transport Act of 1947 set out to provide 'an efficient, adequate, economical and properly integrated system of public inland transport and port facilities within Great Britain', in which the nationalisation of the railways was just one element of a wider move to coordinate the nation's transport.[264] As a result of the Act, the GWR, and with it the Princetown branch, passed into public ownership through the British Transport Commission on 1 January 1948.

There is debate as to whether the nationalisation programme was primarily geared towards improving the efficiency of capitalism, or introducing socialism. While the utility, transport and mining services saw largescale nationalisation, manufacturing, construction, commerce, agriculture and land were largely left in private ownership, and it has been argued that the exclusion of these areas from the programme undermined any socialist objectives.[265] Nonetheless, the continued operation of uneconomical branch lines and bus services illustrates a desire to preserve the existing transport network for social benefit. With the arrival of a Conservative government in 1951, however, policy was switched so that competition replaced integration as the main objective. A degree of devolution was introduced to the railways, with the abolition of the Railway Executive and the forming of Area Boards which corresponded with the six railway regions. These were policy making bodies at an area level, with particular control over commercial matters, while an overhaul of the rate charging system freed the railway of many of the obligations which had for so long

[262] Robert Millward, 'The 1940s Nationalizations in Britain: Means to an End or the Means of Production?', *The Economic History Review*, Vol. 50, No. 2 (1997) p. 213.
[263] Ibid. p. 210.
[264] Bagwell, *The Transport Revolution,* p. 293.
[265] Millward, 'The 1940s Nationalizations', pp. 213, 215, 223.

restricted their ability to be competitive with road transport.[266] This slight return towards a laissez-faire system would pre-empt the final closure of the line in 1956. The events surrounding the closure and subsequent re-use of the trackbed, together with changing attitudes towards Dartmoor amid emerging tourist cultures, will be more fully explored in chapter four.

The promotors of the Plymouth & Dartmoor Railway started out with good intentions. However, the failure to anticipate the relatively high value of land, together with a failure to recognise the engineering implications and engage with the emerging railway industry, laid the foundations for the line's takeover by another party. This, together with the loss of several key individuals during the line's construction, meant that the desire for improvement disappeared in place of commercial gain. With the advancement of railway technology, the Plymouth & Dartmoor Railway soon became an antiquated reminder of an earlier railway age, with the line finding itself unable to take advantage of the various periods of mass railway expansion. When the line was finally rebuilt, it was driven by political motivations rather than altruistic ones. With the branch to Princetown having achieved the GWR's aim of denying the London & South Western Railway access to the centre of the moor, the need to actively develop the line was minimal. Both the rebuilding and subsequent operation sparked a debate about who should benefit from the line, and where the GWR's responsibility should lie. This however was part of a much larger and longer-running debate, over the accountability and ownership of the nation's railways. It was a debate in which the Princetown branch was usually on the periphery, but also occasionally at the centre of. This chapter has also revealed the clash between the new line and the emerging preservation movement. Despite its failings, the railway supported the various communities along its length for well over a century. The next chapter will examine these communities in more

[266] Barker and Savage, *An Economic History*, pp. 219, 221.

detail, as they emerged to support the granite industry which the railway had come to rely on.

The old and new at Ingra Tor. Emerging out of the bracken in the foreground, the trackbed and culvert of the Plymouth & Dartmoor Railway resemble a medieval causeway, while in the background, the railway origins of its 1883 successor are clear to see.
Author

Chapter Three

Bricks Among the Granite:

The Lives and Legacy of the Quarry Communities

‘There was once a quarry out on the moor here, which gave work to several families. And then the dead old houses were left to wind and weather.’

Charles E. Stidwill, *A Brief Journey,* 1954

OS one inch map c.1900. Merrivale, here unnamed, is in the vicinity of the inn in the top-left corner. The area occupied by the ‘Red Cottages’ has been coloured red for clarity, while immediately to their north is Foggintor Mission School.
National Library of Scotland

With the vast expanse of Dartmoor littered with surface stone, the ruins of human habitation often merge seamlessly into the natural vista. On being abandoned, buildings have been either purposely demolished in the name of amenity, or gradually eroded, through the forces of nature and the hands of those seeking a convenient supply of building stone. Today, one can still follow the same route that the quarry workers trod as they went to and from their

sites of work. While some of their former buildings linger on as ruined outlines, others have seemingly disappeared. But a closer look around the apparently natural moorstone may reveal fragments of brick, clay piping, and other remnants of human settlement. The quarry settlements were focused on two main sites. The settlement at Merrivale differed from Foggintor; while the latter had started from nothing more than a barren wasteland, the former had already seen many centuries of human habitation, albeit on a small scale. In addition, further scattered dwellings also existed around Rundlestone (often spelt Rendlestone). The passing of these quarry communities into history did not stir up the same sentiment that closure of the railway brought. When the line closed in March 1956 the local press heralded it as the end of an era, emphasising the closure's impact on the railway workers living in the area. Many of them resided in Station Cottages, alongside the railway terminus at Princetown. Closure day saw the *Western Evening Herald* report how Gilbert Hext, a ganger for forty-one years, was one of the most reluctant to see the line close, and that while 'all of the men have been offered new appointments within the Plymouth area… for most of them it means a search for new homes and the severing of long-established ties.'[1] Yet despite the prominence placed on the railway workers, they represented only a tiny proportion of the area's industrial workforce.

Alun Howkins, a leading historian of the English rural working class, contended that from the end of the Great War a gradual population change began to play out, in which the countryside demographic became increasingly populated by those who worked outside of agriculture.[2] Dartmoor predated this trend by around a century, the granite industry quickly outgrowing the existing supply of local labour. As a new wave of workers came onto the moor, the problem of where to house them quickly arose. Additional facilities, such as water and waste also had to be considered, while the continuing growth of the quarry communities led to the question of religious and educational provision. Despite the length of time these

[1] *Western Evening Herald*, 3 March 1956.
[2] Alun Howkins, *The Death of Rural England* (London: Routledge, 2003) p. 164.

communities existed – around a century – the voices of those who lived in them are largely unheard. Nonetheless, although the available sources generally come from elite groups, within them are revealed responses to bottom-up pressures. Further insight can be gained through studying the impressions gained by those who came across the quarry population. This brings up various questions. What constituted a 'native' of the moor? Was it determined by geographical origin, the nature of one's work, or spiritual qualities?

This chapter will begin by looking at the physical creation of these communities, their place among wider attitudes towards housing, and their integration within the local community. Following this, attitudes towards the population will be explored, before finally looking at the provision of education for the children of the quarry workers, and the later attempts at repurposing these facilities. The repurposing of buildings is a recurring theme throughout the industrialisation of the moor. Interwoven with this is the question of where responsibility for changes should lie – with the state or the individual?[3]

Creating Quarry Communities

In June 1941 the Plymouth branch of the Devonshire Association undertook an organised ramble in the Princetown area. Led by famed Dartmoor writer Richard Hansford Worth, the itinerary included a visit to the disused workings at Foggintor, where the former offices of Johnson Bros. attracted particular attention. A subsequent press report described the 'moderate-sized and well-built house… the office, with its striking externally-splayed windows, seems to have been erected as an object-lesson

Johnson's house at Foggintor. From *A Brief Journey*, 1954. *BBC*

[3] Kelly, *Quartz and Feldspar*, pp. 150-151.

in what can be achieved in granite.'[4] Less salubrious accommodation was found to the north, at Hollow Tor, where the site of a 'so-called 'primitive' house' was pointed out. With the dwelling now buried beneath quarrying activity, Worth's party were informed how 'such houses were erected less than a century and a half ago… with blocks of surface granite, and they were roughly thatched. They had no claim, therefore, to any real antiquity.'[5] The timing of Hansford Worth's visit was fitting, as exactly one hundred years earlier the quarry had witnessed its greatest period of expansion, having secured large contracts such as for the Plymouth Breakwater and Nelsons Column. While the work existed, a suitable workforce did not. In 1841 advertisements appeared in the *Western Times* from the Haytor Granite Company, who were seeking 'from 100 to 150 good scabblers, and other granite masons' for the quarries a mile and a half from Princetown. The work benefited from being constant throughout summer and winter, while there would be 'no lost time in bad weather, as sheds and workshops are provided for the workmen.' The piecework rates offered by the company would see a good mason earn between twenty to thirty shillings a week.[6] In comparison, the crane labourers could expect daily rates from 2s. 8d. for a 'governor of the frames', down to 2s. 2d. for a frame driver.[7] Beneath the advert for labourers, Elizabeth Counter of Princetown was offering 'good lodging, washing and cooking' to granite masons and 'good labourers'. A further advert in December stated that the lodgings were less than twenty minutes' walk from Foggintor. However, with Princetown having been recently described as 'a small place containing about thirty houses', the increasing scale of operations soon outpaced the availability of accommodation for the workforce.[8] The exposed nature of quarry working on the moor had already led to some rudimentary attempts at creating shelter. Writing in 1831, Anna Eliza Bray gave a vivid description of the scene she found at King Tor; 'in going to it, I passed several huts that seemed to be constructed for the use of the labourers; some were

[4] *Western Morning News*, 30 June 1941, p. 2.
[5] Ibid.
[6] *Exeter and Plymouth Gazette*, 25 December 1841, p. 2.
[7] *The Western Times*, 27 November 1841, p. 2.
[8] *Saturday Magazine*, 29 September 1838, p. 115.

little better than mere cavities to shelter them from the heat of the weather. The workmen were principally clustered around, and almost hanging (like bees) from what, comparatively speaking, might be called detached rocks, thrown about in a wild and picturesque confusion, but which they will soon reduce to a mere heap of rubbish.'[9]

Physical developments at the quarry sites passed largely unnoticed by the Lopes estate, who were principally concerned with the timely payment of any granite dues owed to them. Consequently, Johnson Bros. were able to expand their workings with impunity, until word finally reached the estate owner. George Giles, who served as Steward and Land Agent to the Lopes family for nearly half a century, from 1810 until 1859, was responsible for the day-to-day affairs of the estate. In 1841, acting on Sir Ralph Lopes' request, Giles visited the quarry site at Foggintor, his first such visit in several years. Writing to Sir Ralph in September, Giles revealed that he found the site to have been 'greatly enlarged and extended' since his last visit. As well as the expansion of quarry machinery, Giles described how he found twenty smiths 'busily at work' in 'a long building supported on tall granite posts, with the sides and roof formed of boards well coated with tar'. A similar building was also provided for carpenters. Continuing further, Giles encountered the building which so impressed Hansford Worth a century later; 'there is a most substantially built cottage with stone walls and verandah thatched roof containing six comfortably fitted rooms wherein Mr Johnson at times spends his week - an addition to the cottage is in progress (being formed of boards) for a kitchen and other offices.'[10] Despite the extensive development of the area, Giles found only one case of workers' accommodation, when he came across another cottage which he understood 'had been erected by one of the workmen of the name of William Williams for his own residence, and a large piece of ground enclosed by a hedge (the extent approaching to nearly an acre) and cropped with potatoes which looked in a

[9] Anna Eliza Bray, *Legends, Superstitions, and Sketches of Devonshire on the Borders of the Tamar and the Tavy, Illustrative of Its Manners, Customs, History, Antiquities, Scenery, and Natural History* Vol. 1 (London: Newman, 1844) pp. 286-287.
[10] TBP: 874/21/1 George Giles to Sir Ralph Lopes, 10 September 1841.

thriving and healthy condition.'[11] The family remained in this house until Rosina Eva, the daughter of William Williams died in 1936.[12]

By the time of Giles' visit, around 300 people were employed in the quarry. The dearth of accommodation had become critical in 1839, after Johnson Bros. secured a contract to supply stone for the reconstruction of the Houses of Parliament. Ever since the POW depot had closed in 1815, the question of what to do with it remained hanging in the air. In addition to the complex of buildings contained within the large circular wall, for which the site is most recognised, the prison had also been served by an adjoining barracks. The previous chapter has shown that despite Tyrwhitt's belief that the Plymouth & Dartmoor Railway would reverse the fortunes of the depot, the railway's principal beneficiary instead turned out to be the firm of Johnson Bros. Subsequent proposals for the prison clung to the hope that it could be used in a reformatory purpose, but equally came to nothing.[13] Now, with the prisoner of war depot lying empty, Johnson Bros. commandeered the barracks, repurposing them to house quarry workers and their families.[14] By the time of the 1841 census, eighty-five people were recorded as living in the barracks of the defunct prison. This provided only a medium-term solution, the tenants being evicted in preparation for the reopening of the prison for convicts in 1850.[15]

While the company's workforce was in the process of taking up residence in the barracks, the firm was pursuing a more permanent residency at Foggintor itself. In doing so, the lack of a regulatory framework to restrict private enterprise resulted in a blurring of lines between quarrying activity and residential development. In 1840 Johnson Brothers' Haytor Granite Company was challenged by the Lopes estate for 'building a house near Foggaton [sic], having no right to do so'.[16] This was most likely the manager's house mentioned by Hansford

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[11] Ibid.
[12] Brewer, *The Railways, Quarries and Cottages,* p. 87.
[13] Kelly, *Quartz and Feldspar*, pp. 158-161.
[14] *Western Times*, 4 May 1839, p. 2.
[15] Joy, *Dartmoor Prison,* p. 13.
[16] Brewer, *The Railways, Quarries and Cottages,* p. 86.

Worth in his 1941 tour. In 1846, with the future availability of the prison in question, more permanent accommodation was proposed. In contrast to the unauthorised building of the manager's house at Foggintor, this time the quarry took a more formalised approach towards building on Lopes' land. Nonetheless the anarchic nature of Johnson Bros.' operation was still in evidence. In June, Giles was compelled to write to Mr Hoar of the Haytor Company, after 'some one left at my office two plans for cottages'. Giles, who had been away at the time, learnt from his clerk that they had 'been left by some one from the granite quarries', and asserted to Hoar that he had no prior knowledge of any proposals for buildings in the area.[17] Despite the unexpected appearance of the plans, Lopes agreed to the development of the new houses. The plans initially called for 'two clumps, each containing three cottages, with half an acre of ground to each dwelling'. In practice each cottage was split into two separate dwellings, so that in total there were twelve 'cottages', with each pair being served by a single door. The resulting layout provided each dwelling with a 'one up one down' arrangement.

The new houses were situated some distance from the quarry; however their location, just south of the Tavistock Road, aided their accessibility from Princetown, while at the same time placed them close to the quarry leat. Although the date of its construction remains unknown, the leat had most probably been created some years previously, to supply the needs of the quarry workers and their horses. The provision of a sizeable area of land for each cottage was a necessity rather than a luxury. With Princetown being the only settlement of any size within the vicinity, the location demanded that the tenants develop a degree of self-sufficiency. The demarcation of this land also highlights the rigid enforcement of boundaries which Lopes was keen to impose. The pages of George Giles' letter books, spanning a thirty-five-year period from 1825 to 1859, contain countless cases of trespass against Lopes' Maristow Estate, either through encroachment onto land, or through the unauthorised removal of granite, soil, or peat. Lopes was keen to make his position known;

[17] TBP: 874/21/4 Goodyear to Hoar, 30 July 1846.

as Giles informed one unfortunate peat cutter, ‘it happens at times that the assumption of such rights by others comes in [to] collision with what he considers his own superior right as Lord of the Soil’.[18] The arrival of a wave of new tenants inevitably meant that the potential for trespass against the ‘Lord of the Soil’ was greatly increased. Lopes considered the cottages to be an ‘appurtenant’ [accessory] to the granite works and included a clause, that should Johnson Brothers abandon their granite lease, their lease on the cottages would also become void.[19] In addition, Lopes ensured that a whole range of restrictions were put into place. On 20 January 1847 Giles wrote to Hoar regarding the proposed cottages. Responding to the suggestion that the occupiers of the cottages ‘might be permitted to cut turf and vag on the Common for their private consumption within such cottages as ordinary household fuel but not for sale’, Giles replied that Lopes felt such an allowance would necessitate an increase in rent to ten shillings, from the originally proposed five. Ralph Lopes ensured that his proprietorship of the moor was felt in all areas. The Maristow papers record a clause that any water supply should ‘be applied to household purposes only, and not to the working of any kind of machinery’. It was further emphasised that ‘the quantity so limited should be the minimum of the required supply, Sir Ralph wishing to retain the command of water as much as possible for other purposes should it be required.’[20] In addition to restrictions over the use of earth and water, the other ‘most important stipulation’ imposed on the Haytor Granite Company, was that ‘on annoyance or trespass being committed by any of the occupiers of these Cottages or any of the labourers or other persons employed on any part of the Company’s works… the company shall immediately thereupon be required to expel such occupier and to discharge such labourer or other person so offending.’[21] As will be seen later, Lopes’ regulations did not prevent every local from taking matters into their own hands.

[18] TBP: 874/21/4 Giles to John Dawe, 15 May 1848.
[19] Brewer, *The Railways, Quarries and Cottages,* p. 96.
[20] Ibid. p. 69.
[21] Ibid. p. 95.

The new cottages appeared at a time when there was a lack of a regulatory framework for building construction. Despite the preponderance of granite in the area, the new buildings made use of a different material, one more usually associated with lowland Devon. Writing to the Haytor Company in August 1846, Giles proposed that the 'first covering' of the cottages should be boards. The reason for this can be deduced from a surviving record from 1913, in which the cottages' construction was described as 'cob and timber with slate roof'.[22] A combination of earth and straw, cob was a Devonshire vernacular, having been in use since at least the thirteenth century. While various systems of building with unbaked earth had existed throughout Britain, the method of cob construction was largely specific to the county and survived until the mid-nineteenth century. Thereafter the expansion of quarrying and development of brick provided more convenient methods for building.[23] The uneven and informal character created by cob construction, combined with the proliferation of surviving buildings, has helped shape the identity of much of Devon. For the new cottages, high on Dartmoor, the harsh climate presented a new set of challenges. However, the need to protect the cob walls from the Dartmoor weather provided the houses with a long-lasting identity, after their early years were marked by something of an identity crisis. Known initially as Mount Pleasant and appearing as such in the 1851 census, a decade later the census was recording them as West View Cottages. By 1863 however they had adopted the colloquial name by which all official records would subsequently record them. Covered in corrugated iron and painted in red lead as weatherproofing, the houses became widely known as Red Cottages.[24] By 1903 they had been coated with tar, however the name Red Cottages prevailed for the rest of their existence.[25]

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[22] TBP: 874/21/4 George Giles to J.C.D. Hoar, 20 August 1846; Brewer, *The Railways, Quarries and Cottages*, p. 97.

[23] Pamela Egeland, *Cob and Thatch* (Exeter: Devon Books, 1988) pp. 10-12.

[24] Janet Palmer, 'A Foggintor Family', *Dartmoor Magazine* 118 (2015) p. 37; *Tavistock Gazette*, 10 July 1863, p. 4.

[25] *Western Morning News*, 30 September 1903, p. 5.

Not long after the Red Cottages were constructed, a further group of houses was built, this time within the immediate environs of Foggintor quarry.[26] Known as Hill Cottages, they were more substantially constructed, making use of the abundant supply of granite. These cottages dated from around 1851, when they appeared on the census as 'under construction'.[27] Both these and the Red Cottages were built at a time when attitudes towards the social condition were just beginning to awaken, the 1850s witnessing a considerable amount of housing legislation being passed through Parliament. The 1855 Nuisances Removal Act consolidated two previous Acts of 1848 and 1849, and significantly, albeit using vague language, determined a basic standard for human habitation.[28] These Acts gave authorities the power to order the maintenance of premises in a habitable condition, as well as close those which were 'unfit for human habitation.' They were however only effective when local authorities were willing to implement them, their value being further weakened by the fact that those who were most affected by nuisances were also those who were least likely to complain, through their lack of education and social standing.[29] The high demand for housing left landlords with less incentive to keep their properties in a decent state of repair, while the existence of sub-leases between tenants and the landlord often led to the further dissipation of responsibility.[30] Massey Lopes' Land Agent's diary makes occasional reference to the condition of the cottages in the early 1900s. In 1903 there were complaints of damp walls and weak windows, a situation which still existed in 1905, when it was reported that the buildings 'require some small repairs to windows, floors and plastering and painting.'[31] The sanitary arrangements at the chapel were also of cause for concern; despite the agent noting that drainage and a cesspit was required for two closets, the following year it was noted that 'nothing has been done'.[32]

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[26] Brewer, *The Railways, Quarries and Cottages,* p. 99.
[27] Ibid.
[28] Gauldie, *Cruel Habitations,* p. 253.
[29] Ibid. p. 123.
[30] Ibid. pp. 89, 96.
[31] Kath Brewer, 'The Foggintor Area - Part 2', *Dartmoor Magazine* 7 (1987) p. 5.
[32] Ibid.

It was the failure of private builders to meet the needs of working people that resulted in the emergence of public housing policy. However, the isolated nature of the quarry communities, with scattered outlying settlements such as those at Rundlestone, meant that they were overlooked amid the wider movement to improve housing conditions. As Enid Gauldie observed in *Cruel Habitations* (1974), 'the decay of the towns caught the attention of the reformers if only because of the smell. In the country the homes of the poor mouldered slowly away with much less notice.'[33] The question of housing reform was also side-lined for a long time, as it veered too closely to the sanctity of private property.[34] The 1884 Commission on the Housing of the Working Classes revealed that little had changed since 1844, when the Commission on the State of Large Towns had reported that the poor lacked a readily available supply of water within their own homes.[35] Out on the moor, the provision of water across the quarry sites was done in the traditional Dartmoor manner, by way of leats channelled through the ground. Merrivale made use of the existing Grimstone and Sortridge leat, which branched off from the River Walkham, and dated back to the fourteenth century.[36] In contrast, Foggintor and the Red Cottages were supplied from springs at Rundlestone, using a leat which was most likely dug specifically for the quarry. With Dartmoor crisscrossed by a veritable hierarchy of leats, responsibility for maintaining some of the more obscure channels was ambiguous, and they slowly fell into disrepair. In 1897 it was reported in the local press that the leat supplying the cottages at Foggintor had been cleared up, so that the water 'was now fit for use.'[37] The timing of this event was not accidental, as it coincided with the construction of a large reservoir at Burrator, next to the railway. This reservoir was the culmination of a long-running saga, which saw Plymouth take municipal ownership of the city's water supply from the moor. The supply of water had been

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[33] Gauldie, *Cruel Habitations*, p. 21.
[34] Hoppen, *The Mid-Victorian Generation*, p. 100.
[35] Gauldie, *Cruel Habitations*, p. 75.
[36] Tavistock and District Local History Society, *Whitchuch Parish. A short History of a Devon Parish* (2002), available at Heritage Gateway https://www.heritagegateway.org.uk/Gateway/Results_Single.aspx?uid=MDV25907&resourceID=104, accessed 10 December 2022.
[37] *Tavistock Gazette*, 19 November 1897, p. 8.

a topical issue on a much wider level since the middle of the century, as city expansion saw the provision and storage of water take on a new material and political status. Anxiety over water supply would bring the question of Dartmoor's ownership into sharp relief in 1894, when the Corporation of London submitted a bill seeking a purchase order for the whole of the moor, as part of their efforts to secure an adequate supply of clean water for the capital.[38] The reservoir's subsequent extension in the 1920s created a great deal of interest; a railway excursion run on 12 September 1928 in connection with its opening was reported at the time as being the heaviest train ever run on the branch, carrying 1,200 passengers.[39] In time the reservoir would become a tourist destination, the temporary halt built by the railway for reservoir workers being retained for tourists.[40] However further up the line, little had changed since the quarry houses had been erected a century and a half before. In 1921 it was reported to Tavistock Rural Council that some of the cottages were without sanitary conveniences, the complainant asserting that they 'did not think such a stage of things should be permitted'.[41]

Renewed concern over the state of housing had emerged following the end of the Great War. In 1926, the first of a series of Housing (Rural Workers) Acts was passed. These Acts provided financial assistance for the improvement and reconstruction of existing cottages intended for agricultural workers and similar persons, by enabling local authorities to make loans to private landlords towards the cost of refurbishing unfit homes. Further Acts in 1933 and 1935 aimed at creating low-cost rental homes built for the working classes, financed by building societies rather than central government or local authorities.[42] In the late 1930s such housing was proposed near the Princetown railway's southern terminus. At a 1937 meeting of Tavistock Rural Council, residents of Yelverton objected to the proposed erection of working-class housing in Crapstone, a mile to the west. Their concern centred over the

[38] Kelly, *Quartz and Feldspar*, p. 212.
[39] *Western Morning News*, 13 September 1928, p. 8.
[40] Kevin Robertson, *Great Western Railway Halts Vol. 1,* (Pinner: Irwell Press, 1990) p. 44.
[41] *Western Times*, 15 November 1921, p. 7.
[42] Howkins, *The Death of Rural England*, p. 87.

devaluation of their own property, which would be brought by the presence of 'a lower standard of civilisation'. As if to confirm their fears, the same meeting saw Dr C. Brodrick, medical officer of health, report on the 'vile' refuse dump at Merrivale, in which 'tin, pots, broken glass, and disused beds strewn all over the place. Any child was in danger of its life.' Brodrick also noted the lack of an immediate water supply.[43] Despite these concerns, the primitive water supply at Merrivale would not be addressed until 1946.[44]

By providing accommodation at their work sites, the quarry owners were not just ensuring a ready supply of labour. The use of tied cottages had the additional benefit of keeping labour costs low, while maintaining peaceful labour relations.[45] Among the Dartmoor quarries, there is very little record of industrial action prior to the First World War. A rare example occurred in 1877, when a strike was threatened at Merrivale after the men desired to leave at 1pm on Saturdays, instead of 4pm.[46] Unrest, when it did occur, invariably centred around conditions of pay, becoming more prominent the following century, amid the changing social and economic conditions.

The arrival of the railway in 1883 provided a potential influx of new influence. Railway workers had a complex role in rural communities, embodying both modernism and traditionalism. They were linked to a much wider social system, and being more politically motivated than rural workers, introduced a culture of labourism and socialism into the countryside.[47] As the national granite trade went into decline, the moor's industry was consolidated to strengthen its position. In 1916 C. L. Duke, manager of Merrivale, formed the South Devon Granite Company. In addition to operating Merrivale, the new firm also took over the workings at Pew Tor, Foggintor, Swell Tor, Crip Tor, and both Great and Little King Tor.[48] Following the end of the Great War the company sought to bolster its workforce,

[43] *Western Morning News*, 3 July 1937, p. 10.
[44] Ibid. 14 September 1946, p. 3.
[45] Howkins, *The Death of Rural England*, p. 174.
[46] *Tavistock Gazette*, 29 March 1877, p. 4.
[47] Howkins, *The Death of Rural England*, pp. 24, 101-102.
[48] *Liverpool Journal of Commerce*, 24 June 1916, p. 6.

advertising for 200 demobilised men. Cottages were available from 1s. 6d. to 2s. 6d. a week.[49] The merging of quarries under a single owner saw previously disparate groups now act in unison. In September 1920 the men of the South Devon Granite Company, who worked both Swell Tor and Merrivale quarries, went on strike. The workers had initially come out in sympathy with building trade operatives in Tavistock who were striking over wages, but subsequently formulated an application for an increase in wages for themselves. Their grievance was based on historical regional differences. The workers in the Dartmoor quarries had traditionally received 2d more per hour than those in Cornwall. The Cornish granite workers, having recently gained a pay rise by threatening to strike, upset this balance. The Dartmoor workers resumed work on the condition that they would receive 2d in excess of the new rates in Cornwall.[50] Another strike broke out in February 1926 across Merrivale, Swell Tor, and Tavistock, after employees who were union members became aggrieved that non-union men were also employed, receiving trade union rates of pay.[51] In 1879 it was reported at Merrivale that it was 'impracticable to pay them by piece work'.[52] Fifty-two years later, when the St Austell firm of Sellick & Nicholls took over both Merrivale and Swell Tor, the transition proved not to be a smooth one, two-dozen men going on strike after the new firm attempted to introduce a piecework system.[53]

Quarries competed for men by raising wages, creating a mobile workforce which regularly changed worksites. A typical example from the early twentieth century was Stonecutter Norman Mead, who, residing in Hill Cottages at Foggintor, worked at Swell Tor and Ingra Tor, before taking up permanent employment at Merrivale.[54] Despite this fluidity, the integration of the quarry communities into the wider locality proved a struggle. During the later stages of construction of the Plymouth & Dartmoor Railway, much despair had been felt

[49] *Western Morning News*, 18 February 1919, p. 1.
[50] TNA: LAB 2/695/WA5247/2/1920 W. Addington Willis to Ministry of Labour, 17 November 1920.
[51] *Western Times*, 12 February 1926, p. 7.
[52] *Tavistock Gazette*, 24 October 1879, p. 5.
[53] *Western Morning News*, 24 April 1931, p. 5.
[54] Palmer, 'A Foggintor Family', p. 37.

by the promotors after Johnson Brothers dawdled in completing the last section of line from Foggintor to Princetown. For the contractors, granite was the main prize to be captured from the moor; connecting with Princetown was of secondary importance. Following the rebuilding of the line in the 1880s, Princetown was provided with a station and yard of a respectable size, and it was the quarry sites which now became the overlooked party. As the ideological driving force of improvement slowly faded away, communities such as Foggintor had to rely on new forces to prevent them from becoming isolated. In 1885 there were calls for Rundlestone, Foggintor, Red Cottages and Merrivale to receive postal deliveries, the combined population of around 100 being reliant on travelling to Princetown to collect mail.[55] A further request for the opening of a Post Office at Foggintor was made in 1896, after it was urged that a general improvement in postal services between Princetown and Tavistock was required, as 'business connections… suffer not a little from delays in correspondence.'[56] Merrivale quarry manager C. L. Duke attempted to improve the hamlet's position in 1908, by applying to build a light railway from the quarry to a proposed junction with the Princetown branch at King Tor. George White, inn keeper at Merrivale Bridge, welcomed the move, as in his view 'at Merrivale they were isolated from the world now, and he did not see why gentlemen should seek to keep them always isolated.'[57] This isolation was not just a physical inconvenience for the inhabitants; compared to Princetown the cost of coal was three shillings per ton more expensive. Colonel George Boughey, overseeing the inquiry at Tavistock, decided in favour of the proposal, in view of 'the maintenance of the road and taking granite over it, competition of Norway quarries, and of the general benefit of district, and of tourists.'[58] Despite being granted permission for the line to go ahead, the railway was never constructed. The previous chapter has highlighted the difficulties faced by the quarry owners in trying to convince the GWR to provide them with better rail facilities. While facilities would be provided many years later for tourists, the irony of the GWR's belated

[55] *Tavistock Gazette*, 8 May 1885, p. 5.
[56] *Western Evening Herald*, 26 March 1896, p. 2.
[57] *Western Morning News*, 21 July 1908, p. 8.
[58] Ibid.

attempts to develop local areas was not lost on a reader of the *Western Morning News*. 'The company has this year opened a halt on the Princetown branch, namely Kingtor, (although Foggintor would appear to be the more appropriate name). About 40 years ago this company was begged to build a halt at this very place. A late Mayor of Plymouth [John Pethick], who owned quarries at Foggintor, also worked hard for it, without success. Now, forty years late, the halt is provided quite unexpectedly and unasked for.'[59]

William Crossing, writing in the early 1900s, recorded that several new cottages had recently been built at Merrivale, so much so that having been a place which 'consisted of only a few cottages and a roadside inn, Merrivale is fast becoming a village.'[60] Set against the hillside and overlooking the road to Tavistock, the houses, known as 'Walkham Cottages', were a prominent feature in the landscape. The quarry at Merrivale had opened around 1874, under the management of William Duke, one-time manager of Foggintor. Following his death in 1898, the quarry was taken over by his son, Cornelius. Cornelius Laskey Duke spent most of his life residing in Plymouth, working as a prominent public works contractor, and serving as a Justice of the Peace. Despite his judicial position, Duke would have several brushes with the law. In 1930 he came close to being declared bankrupt. During the ensuing investigation, his monetary affairs – possibly to his benefit – were found to be 'so interwoven with the transactions of the several companies with which he had been intimately associated it was difficult to approach the matter.'[61] On this occasion the investigation, by the Official Receiver, was dropped.[62] He had been less fortunate in 1923, however, when he was prosecuted by the Ministry of Health and Ministry of Labour for failing to produce national insurance cards and unemployment books. Landed with a fine, Duke, having repeatedly adjourned Ministry appointments, was accosted by the chairman, Marwood Tucker, for having 'trifled with a government department by treating the matter in a casual and careless way.'[63] The younger

[59] *Western Morning News*, 22 June 1928, p. 2.
[60] William Crossing, *Dartmoor Worker* (Newton Abbot: Peninsula Press, 1992) p. 75.
[61] *Western Morning News*, 18 October 1930, p. 4.
[62] Ibid. 26 June 1931, p. 9.
[63] Ibid. 19 July 1923, p. 6.

Duke became a notable presence in the Princetown area, being in the habit of making grandiose gestures which either directly benefited the Merrivale area or brought attention to the quarry. A typical example occurred in 1916, when the *Daily Express* launched a fund to create a monument for Lieutenant W. L. Robinson, following his award of the Victoria Cross for becoming the first British pilot to shoot down a Zeppelin. Within a few hours of the appeal being announced, C. L. Duke had offered to supply granite for the memorial free of charge.[64]

While the houses here, and at Foggintor, enabled workers to settle in the area, they were not the only buildings to be constructed for the workforce. A characteristic element of any Victorian community was the religious institute. Hill Cottages at Foggintor had been provided with a Wesleyan chapel at an early stage, adjoining the houses.[65] With the development of Merrivale, in 1879 William Duke, 'not unmindful of the spiritual wants of his employees', had his office fitted up as a Sunday school, 'where a good many children gather'. The office was also used for public worship, being 'much appreciated by the inhabitants of this moorland district'.[66] Later in 1901, the Tavistock Wesleyan Circuit began holding services at the quarry, in a recently constructed chapel.[67] The chapel was a corrugated iron building, typical of those found in isolated rural areas, and was originally intended to be only temporary, until a more substantial masonry chapel could be built.[68] By 1902 Princetown's own chapel had accrued a considerable debt, the Home Office providing a grant of £300 to assist in liquidating it. C. L. Duke, seeing an opportunity to improve the facilities at the quarry, offered a free site at Merrivale for the building of a new chapel, and laying out of a burial ground.[69] This however never materialised, and the existing iron building remained in use as a chapel

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[64] *Westminster Gazette*, 9 September 1916, p. 9.
[65] Brewer, *The Railways, Quarries and Cottages,* p. 107.
[66] *Tavistock Gazette*, 24 October 1879, p. 5.
[67] *Western Times*, 1 October 1901, p. 3.
[68] A. J. Passmore, *Archaeological Assessment and Recording of Historic Buildings at Merrivale Quarry, Whitchurch, Devon* (Exeter: Exeter Archeology, 2006) https://www.heritagegateway.org.uk/gateway/Results_Single.aspx?uid=MDV46481&resourceID=104, accessed 10 December 2022.
[69] *Western Times*, 26 June 1902, p. 2.

until 1962. Thereafter it was used as a messroom for quarry workers, and today still remains standing in the abandoned quarry site.

Walkham Cottages at Merrivale, with the Dartmoor Inn in the foreground.
From a commercial postcard

The Quarry Workers

In the late 1840s, shortly before the quarry workers were evicted from the Prison, one of their number, Samuel Goodyear, was brought to the attention of the Lopes estate. A Foggintor stonecutter, in late 1848 he was accosted by George Giles, who wrote to him at 'Barrack Yard, Late Prison of War, Dartmoor'. Giles declared 'I learn you have made a most daring encroachment on the property of Sir Ralph Lopes', after discovering Goodyear had enclosed land on Walkhampton Common 'without any right or authority'.[70] Despite threatening Goodyear with legal action, the following March Giles wrote to Sir Ralph bemoaning that 'that desperate fellow Goodyear the stonecutter has resumed his encroachment'.[71] In response, one of Lopes' agents, accompanied by a party of labourers and a local policeman, ventured out to the site of Goodyear's intrusion and levelled the fences. While Goodyear was nowhere to be seen on this occasion, a few days later a flustered Giles wrote to Lopes that 'on Friday Goodyear came here in a great passion. I

[70] TBP: 874/21/4 George Giles to Samuel Goodyear, 10 October 1848.
[71] TBP: 874/21/4 George Giles to Sir Ralph Lopes, 30 March 1849.

would not admit him inside my door, and refused to have any conversation with him. Three distinct times he returned and knocked violently at the door. He then took a position in the road opposite the window – and gave vent to the most horrid language – declaring he would resume the work, and if he were disturbed again it should go hard with those who interfered with him – that he cared little about his own life, and loudly proclaiming to me, that I had not long to live.'[72] Giles then immediately wrote to F. W. Filmer of the Haytor Granite Works, concerning this 'man of desperate character', and urged the Haytor Company, as tenants of the Lopes family, to 'discharge from their employ a man so dangerous and annoying to Sir Ralph's property.'[73] Giles was not alone in his dim view of Goodyear. With Goodyear having since written directly to Lopes, Giles informed his master that he 'should be driven from the neighbourhood, if possible', and elaborated that Goodyear's manager, 'Mr Filmer himself told me, he felt rejoiced when he received the company's orders to discharge him from the works… he was the worst character on the moor'.[74]

Despite Giles' efforts, Goodyear was still resident in the barracks two years later, the 1851 census recording him as resident along with his wife Elizabeth and a lodger, fellow stonemason John Burch. Goodyear, having originated from Bovey Tracey on the eastern border of Dartmoor, could lay claim to being a true moorsman. The demand for granite had however outstripped the supply of local labour, and Goodyear's twenty-five-year-old lodger heralded from St Just, on the western tip of Cornwall. By the time of the census, which coincided with the reopening of the prison, only seven stone masons still resided in the barracks, yet John Burch was one of three who originated from Cornwall. The railway as a facilitator of mobility is a concept which is generally attributed to the steam age, however given the numbers employed at the quarry during this period, and the lack of accommodation, it is probable that the tramway was regularly used to transport workers in from Plymouth, and from the villages along the route. A similar pattern was evident in 1902,

[72] TBP: 874/21/4 George Giles to Sir Ralph Lopes, 9 April 1849.
[73] TBP: 874/21/4 George Giles to F. W. Filmer, 9 April 1849.
[74] TBP: 874/21/4 George Giles to Sir Ralph Lopes, 1 June 1849.

when quarry managers Pethick Bros. were lobbying the GWR to install a platform near Foggintor. At this time around 500 people were employed in the area, with workers coming from Plymouth, Yelverton and Dousland. It was reported that workers travelled to the quarries on Monday, remained there all week in the cottage accommodation provided, before travelling back at the weekend.[75]

While a supply of skilled stoneworkers could be provided from within the southwest, advances in quarrying technology meant that more specialist technicians had to be sourced from further afield. The most extreme case of this quarry-induced migration was to be found at Swell Tor, where in 1903 both the manager, Mr Mitchell, and his electrician, W. H. Baron, originated from America.[76] This migration of workers onto Dartmoor raised questions of identity, of both the individuals and of the moor. Dartmoor chronicler William Crossing was very keen to people the upland, framing the landscape as one produced through labour. In his view, the inhabitants of the moor were as much a part of the landscape as the granite tors. Consequently, for Crossing, the arrival of outsiders upset the fabric of the landscape. In his 1903 series 'Presentday Life on Dartmoor' he lamented how 'many of the clay labourers, like some who work in the granite quarries, can hardly be called Dartmoor men, since they do not dwell on, or quite close to the moor.'[77] Even those from the edges of the moor, such as Goodyear, were not true Dartmoor folk but 'borderers'.[78]

Crossing raises the question of what constituted a 'native'. Writing at the turn of the twentieth century, the author placed a particular emphasis on rituals considered unique to Dartmoor, such as whortleberry picking. Scorn was reserved for Princetown, where 'many of the inhabitants… are not natives of the moor, and do not heed its traditions.'[79] For earlier writers, the Dartmoor inhabitant was defined by their physical and emotional characteristics. Samuel Goodyear may have been an unusually challenging character for the Lopes estate, but his

[75] TNA: RAIL 578/3 Pethick Bros. to General Manager of the GWR, 22 July 1902.
[76] *Western Morning News*, 30 September 1903, p. 8.
[77] Crossing, *Dartmoor Worker*, p. 152.
[78] Ibid. p. 81.
[79] Ibid. p. 85.

unruly temperament lived up to wider contemporary stereotypes of Dartmoor's population, in which they were often portrayed as a mysterious, unruly and lawless people. The *Saturday Magazine* of 1838 was a typical example, relating how 'the "Moorsmen," as they are locally termed, are famed for feats of strength, especially wrestling.'[80] A writer in Charles Dickens' periodical *All The Year Round*, recalling their past experience of the Moor in 1865, evoked notions of a mysterious frontier land, existing outside of normal civilisation; 'but looking back over two generations, I know not how authority was preserved or order maintained. I never heard of police, constable, nor watchman. Crimes were committed with which the devil – he has not yet disappeared from our indictments – or the witch – who is still a living existence in Devonshire – had always something to do.'[81] Between 1907 and 1909 Ernest George Henham, writing under the pseudonym 'John Trevena', produced a trilogy of novels recounting Dartmoor life. Henham's work was leant authority by his residency on the moor. In *Granite* (1909), the third novel in the series, Henham chronicled the spiritual strengths and weaknesses of the moor's rural population, with poverty and intemperance being two of the key issues faced by the protagonists. A contemporary reviewer, noting the 'strange set of characters', including 'the son of a quarryman who becomes a preacher and tries to fight the drink traffic', felt it 'unutterably morbid and depressing' that 'these persons are used to illuminate strange unwholesome depths of depravity and waywardness in the life of a remote moorland'.[82]

Despite Henham's gloomy outlook, by the time of his work Dartmoor's inhabitants had undergone a significant reprieve. Princetown still held an aura of 'dark Dartmoor', but those seeking it out focussed their attention on the prison and its inmates, rather than the local population. In 'The Statue', an Edwardian romance serialised in the *Longford Journal*, Eden Philpotts and Arnold Bennett described a fictional journey to the prison, symbolised as 'the black heart of Princetown'. The train, 'reduced by the majesty of its environment to a toy

[80] *Saturday Magazine*, 29 September 1838, p. 115.
[81] 'Sixty Years' Changes', *All the Year Round*, 16 September 1865, p. 181.
[82] *The Bookman*, Vol. 37, No. 219 (1909) p. 159.

mechanism', climbed ever higher, until 'just when the harshness of that ever-changing monotony had grown intolerable… there was a cessation of effort; the train ran down an incline and under a bridge, and the passenger saw the ugly square tower of a granite church dominating slate roofs and granite walls – all grey within the enfolding grey of hill and cloud. The brakes rasped, and the train stopped with a jerk. "Princetown!" cried a porter.'[83] Set against the complementary backdrop of appropriately austere buildings, the ever-present spectre of the prison provided a focal point for morbid curiosity, the jail emerging as a tourist destination. Such was the popularity of the prison, that by the mid-1920s the problem of sightseers had become so acute that the matter was raised in the House of Commons.[84]

The shifting of focus of 'lawless Dartmoor' from its local population onto the prison and inmates, coincided with a national reappraisal of rural workers. The idea of the rural worker as an ignorant ill-educated rustic had long been in circulation. Even those with an interest in the moor's inhabitants recognised their difference from urban areas. An 1857 Common's debate on the Industrial Schools Bill highlighted the continuing perception of Dartmoor as an area struggling to integrate with the rest of Britain, the MP for South Devon, Lawrence Palk, considering that 'it would be a hardship on those who were born in thinly populated districts to be sent to manufacturing districts, where these schools would be first introduced, and to be obliged to mix with a race with whom they had no feeling in common, and whose language would be wholly unintelligible to them. [Laughter.] Hon. Members might laugh, but he doubted whether a native of the wilds of Dartmoor would be able to make himself well understood in the highly educated town of Birmingham.'[85]

By the late nineteenth and early twentieth centuries conceptions of English identity were increasingly based around the common man.[86] Efforts to discover the true essence of 'Englishness' had begun in the middle of the century, gaining further traction as Irish and

[83] *Longford Journal*, 21 October 1911, p. 7.
[84] TNA: HO 45/20083 Daily Debates Minutes, 13 November 1928.
[85] Hansard HC Deb (17 June 1857) Vol. 145 col. 1957.
[86] Readman, *Storied Ground*, p. 278.

Celtic nationalism intensified.[87] Romantic writers encouraged the development of nationalist ideologies, with emphasis on localism and traditional beliefs. With the rise of Romanticism, peasantry became endowed with a positive quality. Considered the custodians of national spirit, peasant traditions provided inspiration for national high culture.[88] In contrast to Crossing's concern over the origin of the local population, writers less familiar with the area formed a markedly different impression, and through them the cultural rehabilitation of the Dartmoor inhabitant becomes apparent. In 1876, a writer for the *West Somerset Free Press*, recounting a recent visit to the Princetown area, described how 'passing Merrivale Bridge and ascending the hill you see right and left the homes, not of Devon's gentry, but of a happy peasantry… Their homes resemble Irish cabins, and I don't doubt their inmates are as happy with their cow and pig as their cousins in the Emerald Isle.'[89] The opening of the new Princetown Railway in 1883 enabled the moor to become more accessible to those who would not otherwise have visited the area. However, unless the intrepid visitor was prepared to make a specific visit to the quarries, the stone workers remained largely out of sight. Instead, the casual observer was far more likely to encounter their offspring. The writer for *The Graphic*, travelling on the railway in 1886, described how 'not a human being appears in sight until, on arriving at Princetown, we are met at the station by a small crowd of children, whose quaint garments appear contrived with a view to warmth and durability rather than elegance.'[90] The appearance of these children plugged in to the contemporary interest in folk culture, in which the waywardness of Gypsy life was seen as a virtue rather than a vice.[91]

In his 1892 *An Exploration of Dartmoor and its Antiquities*, topographical writer John Lloyd Warden Page described his visit to Merrivale, but made no mention of the settlement there, instead dwelling solely on the area's archaeological remains. Although highly visible within

[87] Searle, *A New England?* p. 11.
[88] Arthur Knevett and Vic Gammon, 'English Folk Song Collectors and the Idea of the Peasant', *Folk Music Journal* Vol. 11, No. 1 (2016) p. 50.
[89] *West Somerset Free Press*, 12 August 1876, p. 5.
[90] *The Graphic*, 20 February 1886, p. 21.
[91] George Behlmer, 'The Gypsy Problem in Victorian England', *Victorian Studies* Vol. 28, No. 2 (1985) p. 239.

the landscape, Walkham Cottages presented an otherwise ordinary appearance. On travelling further east however, Warden Page came across the quarry worker dwellings at Rundlestone, subsequently described by Crossing as 'some of the rudest huts to be seen on the moor.'[92] Warden Page, having walked just over half a mile past the Red Cottages, found that the scattered cottages, 'as they approach Mis Tor, become somewhat poverty-stricken in appearance. The whitewashed walls are low and sturdy, as walls on Dartmoor must needs be; the ragged thatch is often held in place by ropes of straw or hemp, and not infrequently weighted with stone as well. Ideas of cleanliness do not prevail among these cottars, and the space round the door would, were it not for the strong Moor breeze, be redolent of ancient vegetable and soapsuds.'[93] But despite this apparent deprivation, or indeed because of it, Warden Page found virtue. He continued; 'But look at the children. Unkempt, unwashed, their hair bleached by the sun, they are as rosy, sturdy specimens of humanity as you will see between John O'Groats and Land's End. Sumptuous fare is not theirs: bacon and cabbage, I fancy, form the staple of their rough-and-ready dinner, but Dartmoor air does the rest. Go where you will on these highlands, you will find the rising generation the same – generally dirty, mostly hatless, but pallid never.'[94]

In an era of uncertainty, claims about the nation's present and future could be justified through mythologisation of the national past.[95] The era of Saxon rule was seen as a lost golden age which had endowed Britain with its finest characteristics. The most significant of these characteristics was the notion of local self-government, born out of tribal independence.[96] This neatly dovetailed into the mid-Victorian debate over the role of the state. Framed around the terms of centre and locality, centralisation of government was

[92] Crossing, *Dartmoor Worker*, p. 74.
[93] John Lloyd Warden Page, *An Exploration of Dartmoor and its Antiquities* (London: Seely, 1892) p. 140-141.
[94] Ibid.
[95] Stephen Heathorn, '"Let Us Remember That We, Too, Are English": Constructions of Citizenship and National Identity in English Elementary School Reading Books, 1880-1914', *Victorian Studies* Vol. 38, No. 3 (1995) p. 422.
[96] Tristram Hunt, *Building Jerusalem: The Rise and Fall of the Victorian City* (London: Penguin, 2019) p. 268.

frequently attacked as foreign to the national spirit.[97] The country's Anglo-Saxo heritage therefore became a focal point for the essence of true 'Englishness', with an emphasis on the blond haired and blue eyed.[98] A visitor to Merrivale a few years later found 'bright, healthy-looking children are playing along the river banks. Groups of rustic cottages are pitched here and there.'[99] Children running free over the moor chimed with the freedoms associated with common land. During this period Hansford Worth was keen to promote Dartmoor for 'its value as an unenclosed space, where the public may trespass off roads without being taken for amateur poachers, and where they can wander unfettered by hedges, or fear of damaging crops'.[100] A prevailing fear was that country life was on the verge of extinction. Individuals such as folk-song collector Cecil Sharp, a leading activist in the folk revival, blamed enclosure for having been the ruination of peasant culture and society.[101] This interest in rural life would shape moves to protect Dartmoor from future development, a theme which will be explored in the following chapter.

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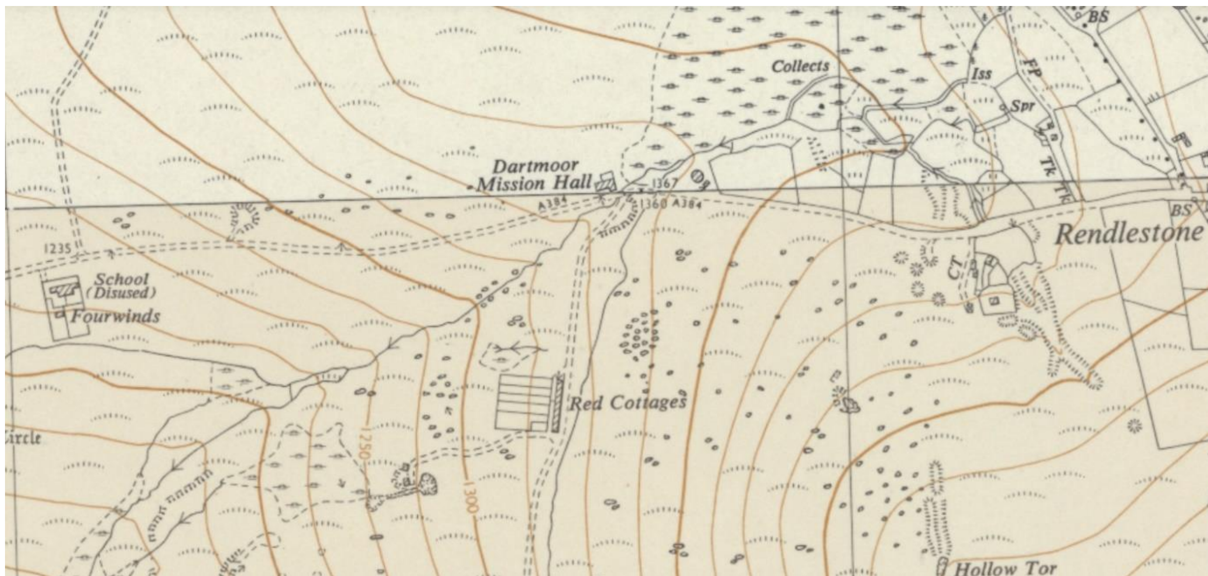
[97] Hoppen, *The Mid-Victorian Generation,* pp. 104-105.
[98] Searle, *A New England?* p. 11.
[99] *Exeter and Plymouth Gazette*, 3 July 1894, p. 7.
[100] Worth, 'Early Western Railroads', p. 86.
[101] Knevett and Gammon, 'English Folk Song Collectors', p. 52.

Education



OS six inch map, c.1950, showing both the former mission hall school and Walkhampton Foggintor School. *National Library of Scotland*

While for some, the sight of children running uninhibited over the moor evoked images of an English rural past, for others it was feral delinquency. The question of schooling in the Princetown area was originally raised by no less a figure than Thomas Tyrwhitt. A key element of Tyrwhitt's ambition to improve the moor was finding a use for the empty prison. Tyrwhitt held the moor as having a reformatory character, and attempted to channel this through the jail.[102] At a meeting of Plymouth & Dartmoor Railway subscribers in 1819, it was reported that 'a glow of benevolent feeling was imparted to everyone present by hearing that at least eight thousand pauper children, now wandering unemployed and uneducated, in the purlieus of vice and crime, in the London bills of mortality, will, in all probability, be soon rescued from impending destruction, and consigned to Dartmoor, for the purpose of learning the arts of industry, and receiving that religious and moral instruction of which they are now so woefully ignorant.'[103] Despite the complications brought by railway's difficult birth, Tyrwhitt was still advocating conversion of the prison to hold 'juvenile convicts' a decade later, but

[102] Kelly, Quartz and Feldspar, p. 158.
[103] *Royal Cornwall Gazette*, 7 August 1819.

came up against a body of opinion amongst the Gaol Committee, who continued to favour transportation. Asserting that the number of convicts would rapidly outgrow the demand for their labour, the Committee maintained that 'transportation to a country where there was abundant room for productive labour, was the best mode of disposing of them permanently.'[104] The debate which surrounded a permanent use for the empty jail would be ongoing for many years and is explored by Kelly.[105] While Tyrwhitt's ambition for the empty prison would not be realised in his lifetime, the emerging quarry communities would be more successful in repurposing the buildings.

The problem of education was first taken on by the Reverend James Holman Mason. Mason was Chaplain of Dartmoor Chapel, which had been built for prison use over 1812-15, and was located near the barracks. Constructed from granite by French and American prisoners, its status as a chapel of ease saw it subordinate to the main parish church at Lydford. On closure of the prison in 1816, the chapel was locked up, but was reconsecrated in 1831, and thereafter saw occasional use by the local population. The reopening of the prison in 1850 saw it come under prison jurisdiction once again, until 1860 when it became a separate establishment. Today it still exists as the Anglican St Michael & All Angels Church. Mason had been the first incumbent of the chapel, and despite its changing fortunes, maintained a constant presence in the area, not retiring from the role until 1859.[106] In 1845 he reported that 'there being a number of children whose parents inhabit the Barracks and are employed in the granite works, the Directors of that Company, some years since fitted up a spacious school room and pay the Master a salary of £26 p.a. for teaching the children of their workmen.'[107] Known as the Dartmoor Barrack School, during this period there were thirty-two boys and twenty-two girls on the books.

[104] *Morning Chronicle*, 14 August 1829, p. 3.
[105] Kelly*, Quartz and Feldspar* pp. 157-165.
[106] Joy, *Dartmoor Prison*, pp. 150-155.
[107] DHC: 7201C/EAA/8/16, Report on Dartmoor Barrack School by J. H. Mason, 9 July 1845.

During this period most schoolchildren depended on various religious and philanthropic bodies to provide their education, with state involvement being limited to influencing the curriculum and providing a small degree of finance.[108] Founded in 1796, the 'Widecombe and Dartmoor Charity Schools' had responsibility for numerous schools over a wide area, and was under the management of Reverend Mason.[109] Many of these schools were held in cottages; however as an official to the Duchy of Cornwall, Mason was well placed to appropriate the former prison for the needs of the Princetown area. With the reopening of the prison in 1850, however, the school was moved into the chapel adjoining Hill Cottages at Foggintor.[110] Information from this period is scarce; however it is recorded that the famous Cornish preacher Billy Bray (1794-1868) occasionally preached at the chapel.[111] Exactly when the chapel ceased being used as a school has gone unrecorded; however in 1867 John Norrish, listed as headmaster in the 1861 census, died. His death occurred during a downturn in the granite trade, with census records showing both Foggintor and Merrivale suffering a dramatic fall in population over the decade. Between 1861 and 1871, the number of Foggintor residents fell from ninety-seven to forty, while Merrivale dropped from seventy-nine to twenty-three.[112] By 1887 there were only two children at Merrivale who were of school age, both of whom attended school at Princetown. Princetown's own school had opened in 1862, being intended solely for the children of prison officers. Although a new school was planned for nearby Sampford Spiney, Merrivale parents refused to send their children there due to the lack of road access.[113]

While the second half of the 1860s saw schooling become dormant within the quarry region, at a national level the same period saw a transformation in attitudes towards educational provision. In 1865 the existing voluntary system was still considered adequate for national

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[108] Pamela Horn, *The Victorian and Edwardian Schoolchild* (Stroud: Amberley, 2010) p. 3.
[109] Mary Stanbrook, *Old Dartmoor Schools Remembered* (Brixham: Quay Publications, 1991) p. 68.
[110] Ibid. p. 75.
[111] Ibid. p. 95.
[112] England, Wales & Scotland Census, available at https://www.findmypast.co.uk/, accessed 16 November 2021.
[113] *Tavistock Gazette*, 11 March 1887, p. 5; 22 April 1887, p. 5.

needs, yet by 1870 most educationists and parliamentarians favoured direct state involvement.[114] The 1870 Education Act was the first piece of legislation to specifically deal with the provision of education. This new legislation created school Boards as locally democratic authorities, which would provide basic elementary schooling in locations where there was an absence of voluntary provision.[115] The Act was a culmination of the efforts of William Forster, Henry Bruce and Lord de Grey. Staunch political collaborators, the trio drew upon the same ideology of social romanticism which had boosted the granite industry through its promotion of Gothic architecture. It was their intention that the Act, through educating the nation, would contribute towards organic social unity and aid the generation of a national spirit. The use of state intervention further bolstered their romanticist aims, through its disavowal of laissez faire. Their cause had been aided by the extension of the franchise in 1867; with men who were illiterate now able to exercise a vote, there was an upsurge in concern over the need for mass education. Similarly, Britain's waning position as an industrial leader was attributed by many to the inadequacy of its school system in comparison to its European rivals.[116]

For the communities around Dartmoor's quarries, it was an upswing in the granite trade during the 1880s, rather than government policy, which reignited the question of schooling. By the time of the 1891 census the population of Merrivale had virtually recovered to its 1861 level, while Foggintor had also seen a significant increase.[117] With the expanding population came growing numbers of children with time on their hands. In April 1892 twelve-year-old Alfred Moore of Red Cottages was 'summoned for setting fire to Rundlestone Plantation and destroying £10 worth of young firs, the property of the prison authorities, who withdrew the

[114] Gordon Baker, 'The Romantic and Radical Nature of the 1870 Education Act', *History of Education* Vol. 30, No. 3 (2001) p. 222.
[115] Wendy Robinson, 'Historiographical Reflections on the 1902 Education Act', *Oxford Review of Education*, Vol. 28, No. 2/3 (2002) p. 159.
[116] Horn, *The Victorian and Edwardian Schoolchild,* p. 16; Hoppen, *The Mid-Victorian Generation*, pp. 307-308, 597-598.
[117] England, Wales & Scotland Census, available at https://www.findmypast.co.uk/, accessed 16 November 2021.

charge on account of the tender age of the boy.'[118] By 1895, the Foggintor representative on Walkhampton Parish Council was complaining that around sixty children in the area were not receiving an education. In response an approach was made to the trustees of Foggintor Mission Hall, which, having been recently constructed on the Tavistock-Princetown road, presented an ideal venue for a new school.[119] Located a mile to the north of Foggintor, and within easy walking distance of the Red Cottages, the Mission Hall and its adjoining caretaker's house had been built in 1887 on land donated by Massey Lopes.[120] An account from 1913 described the Hall as being a two story 'stone & plastered house with slate roof', featuring a lean-to washhouse in stone with a corrugated iron roof, and a second similar lean-to in use as a shed. Having two rooms on the ground floor and three on the first, it had a capacity of around 100.[121] With the Reverend Charles Walker coordinating the new scheme, the trustees agreed to the Hall's use as a school. In overseeing the transformation, Walker soon found himself treading a fine line between the expectations of the government's Education Committee, and the reservations of the Mission Hall trustees, who did not universally approve of the conversion. The desire of the Education Committee for larger windows was a particular concern; with the Hall trustees objecting to the alteration, Walker worried that if the Committee insisted on the change, the resulting deadlock would 'wreck the whole scheme'. Attempting to maintain the peace with the trustees, Walker was at pains to inform the Committee that the existing small widows were a necessity, as 'no one, who has not experienced it, can have any idea of the force of a gale, and the penetration of rain driven by the wind, even through thick walls, in the middle of Dartmoor, 1500 feet above the level of the sea.' The exposed location did however give it an advantage through the lack of any buildings or trees to block the light.[122] Following alterations, including the enclosure of a

[118] *Tavistock Gazette*, 1 April 1892.
[119] Stanbrook, *Old Dartmoor Schools,* p. 95.
[120] Ibid.
[121] Brewer, *The Railways, Quarries and Cottages*, p. 109.
[122] TNA: ED 21/3882 Reverend Charles Walker to Education Department, 27 September 1895.

quarter of an acre to form a garden, playground and yard, the Hall opened as a school in August 1896.[123]

One of the more contentious aspects of the 1870 Act concerned the role and form of religious education, and the extent to which it should be publicly subsidised. It was eventually resolved that new rate-funded schools under the control of local school Boards would provide non-denominational teaching, whereas voluntary schools, not under rate-payer control and funded directly from Whitehall, would provide denominational teaching. However, a subsequent clause gave school Boards the provision to pay the fees of poor children, including those attending voluntary schools, consequently opening the possibility of rate-aid to denominational schools. This was particularly contentious amongst non-conformists, who considered it as covert means of funding Church of England schools.[124] As a voluntary school under Walker's direction, problems shortly arose at the Mission Hall when it was revealed that the terms of the Trust Deed precluded the building's use as a special denominational school. Consequently, in January 1897, only a few months after it had opened, Walker announced that the 'Granite Quarries School' would have to close.[125] This episode reignited the question of the necessity of the school, and of the longevity of the community that it supported. A government inspection by Mr Barnes found that the school was ideally suited for the children, only three of whom came from Merrivale Bridge, with the 'great majority' coming from within a quarter or half mile of the school. Barnes stressed that in his view 'the work at the quarries' appears to be of <u>a permanent character</u>'.[126] During construction, Walker had himself emphasised how the existing parish school 'affords ample accommodation for the population of the Parish. The school I am anxious to open, is only rendered necessary by the exceptionally scattered district, and the distance at which these families live from the parish school, across a stretch of moor which is practically impassable

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[123] Stanbrook, *Old Dartmoor Schools,* p. 95.
[124] Baker, 'The Romantic and Radical Nature', pp. 230-231.
[125] TNA: ED 21/3882 Lieutenant-Colonel Plummer to Board of Education, 18 December 1896; Rev. Walker to Education Department, 5 January 1897.
[126] TNA: ED 21/3882 R. Barnes to A. B. Fisher, 18 January 1897.

in bad weather.'[127] In view of the necessity of a school close to the quarries, it was determined that the Mission Hall should continue in this role, albeit under the management of the trustees themselves.[128]

The school had an initial intake of forty-one pupils, of which only three could read. The children came from Merrivale, Foggintor, Rundlestone, various farms and the nearby Red Cottages. Due to developments both locally and nationally, by 1899 attendance had risen to over eighty, and with the construction of new houses, it was feared that there would soon be 120 children living within a mile of the school.[129] In 1893 the threshold for compulsory schooling was raised from ten to eleven, being further increased to twelve in 1899. The following year local authorities were empowered to raise the leaving age to fourteen.[130] The pressure put on the school to include older children brought renewed tensions between the different bodies. The Board of Education would only consider the school as suitable for older scholars on the condition that it was provided with a classroom. Initially the managers tried to compromise by offering to fit a screen, but with the Board only accepting a physical extension to the school, the managers relented, and an architect was engaged.[131] Despite agreeing to this in October 1899, in March 1901 the managers reneged. A. B. Fisher's frustration over the time which had been 'wasted' was clear; 'this refusal of [the] managers to provide a classroom takes us back to '99… I think they are under the impression that they can provide for all the older scholars in their own neighbourhood and from their own parish (Walkhampton) in the present buildings, but we have not agreed to this.'[132] The managers' reluctance to invest in the building was spurred by the shifting status of the region's quarries. The rise of Merrivale as a quarrying centre, in place of Foggintor, shifted the demographic of the children attending the school. Whereas on opening in 1896, most children had come

[127] TNA: ED 21/3882 Reverend Charles Walker to Education Department, 27 September 1895.
[128] TNA: ED 21/3882 R. Barnes to A. B. Fisher, 18 January 1897.
[129] Stanbrook, *Old Dartmoor Schools,* p. 98; TNA: ED 21/3882 A. B. Fisher to Council Office, 24 August 1899.
[130] Searle, *A New England?* p. 50.
[131] TNA: ED 21/3882 J. J. Westlake to Board of Education, 8 August 1899; Bridgman & Bridgman to Board of Education, 19 September 1900.
[132] TNA: ED 21/3882 A. B. Fisher to Board of Education, 14 March 1901.

from Foggintor, by 1901 it was claimed that half the schoolchildren came from Merrivale. With the settlement lying in the parish of Whitchurch, the trustees were aware of agitation from Merrivale parents for Whitchurch School Board to provide the community with a school of its own. Should such a move come to fruition, the trustees feared that any expansion of the Mission Hall's accommodation 'would be a useless outlay… because half the children would be taken away.'[133] Fisher, however, wished to avoid 'having two small miners schools within 1¼ miles of each other in these remote wilds.'[134] In September the managers met with Fisher, when it was finally agreed to install a wood and glass partition. The managers accepted this change, being a non-structural alteration, with the Inspector of Schools agreeing in principle, provided it did not adversely affect the light, warming or ventilation of the room.[135] The following year Merrivale residents continued to petition the Education Department to erect a school in the hamlet. The local press reported that 'as the road lies over an open part of Dartmoor it is very inconvenient for children to attend there when the weather is at all inclement. Many houses have lately been built at Merrivale Bridge for the accommodation of the workmen in the granite quarries, and it is felt that a school is needed nearer home.' The scheme did not, however, 'meet with the approval of the rest of the parish.'[136]

By the 1890s the financial situation of voluntary schools had become the primary concern of educational politics, as they struggled to compete with rate-aided expansion.[137] In 1899 part of the Mission Hall's roof was blown away in a storm, while the government inspector began raising concerns over the state of the desks. The condition of the desks was still a concern four years later, when, with attendance at ninety-five and overcrowding now a concern, the inspector threatened to withdraw funding unless the situation was improved.[138] The

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[133] TNA: ED 21/3882 J. J. Westlake to Board of Education, 5 March 1901.
[134] TNA: ED 21/3882 A. B. Fisher to Board of Education, 14 March 1901.
[135] TNA: ED 21/3882 Mathew Rowse to Board of Education, 5 October 1901; Report from A. B Fisher to Board of Education, 16 October 1901.
[136] *Exeter and Plymouth Gazette*, 10 October 1902, p. 12.
[137] Robinson, 'Historiographical Reflections', p. 160.
[138] Stanbrook, *Old Dartmoor Schools,* p. 96, 98.

administrative structure created by the 1870 Act had been notoriously ambiguous, and in 1902 a further Education Act was passed, which aimed to rationalise the confusing administrative system. The Act abolished the school Boards, advancing state provision by replacing them with Local Education Authorities.[139] By the autumn of 1909, the Mission Hall managers were no longer prepared to conduct the school as one which was not provided for by the council. With the Devon Education Committee wishing for the school to continue, it was agreed to transfer the school's management to the County Council.[140] The involvement of an outside party in running the Mission Hall immediately ignited local unrest. A public meeting of subscribers in October 1909 saw the inauguration of the Foggintor Mission Committee, which declared 'its emphatic protest against the policy pursued by the Trustees in the attempt to lease the Hall to the Devon County Education Authority, and the maintenance of the Day School on the premises.' The Committee asserted that 'the vast majority of the people are strongly opposed to using the Hall, other than the purpose for which it was built.'[141] In December Hubert Witchard, secretary to the Mission Committee, wrote to the Board of Education. Witchard elaborated how 'the two bodies in the same hall have always clashed', the educational work interfering with the religious work, while 'the low seated children's desks have always been objected to by the people who worship at the Hall as being exceedingly uncomfortable.' Witchard believed a new school was the 'only way to settle this long-standing and to many of us a miserable, conflict.'[142]

The Devon Education Committee, on seeking assistance from the Board of Education, were informed that the question of the Trustees' power to grant a lease lay with the Charity Commission. The Board however did not see a future in the existing school, adding that 'in view of the condition of the buildings, the Board would not be able to recognise the school in its existing premises for more than a very limited period.'[143] On seeking the view of the

[139] Robinson, 'Historiographical Reflections', p. 162.
[140] TNA: ED 21/3882 J.F. Young, Devon County Council clerk, to Charity Commission, 7 October 1909.
[141] TNA: ED 21/3882 Foggintor Mission Committee resolution, 12 October 1909.
[142] TNA: ED 21/3882 Hubert Witchard, Mission Hall Committee, to Board of Education, 14 December 1909.
[143] TNA: ED 21/3882 R. Walrond, Board of Education, to Devon Education Committee, 12 January 1910.

Charity Commission, the Education Committee were met with an even more decisive response. Following an enquiry in July 1910, the Commission concluded that in view of the Hall having been created through public subscription under the Place of Worship Sites Act, it could no longer be used for educational purposes. In informing the Education Committee and Trustees of their decision, the Charity Commission included the proviso that the Trustees should allow the Education Committee reasonable time to provide alternative premises. The existing school was given a reprieve until September 1912.[144] Despite this leniency, by the spring of 1912 a location for the new school had still not been decided. In May the Devon Education Committee elected to build the new school at Merrivale. Despite having considered a site at Foggintor, the committee had been informed that it was 'too bleak and too much exposed for the purpose.'[145] This decision went against the wishes of most residents, who favoured Foggintor, and in June they presented the Committee with a petition objecting to the proposed site. Despite the petition including several Merrivale residents, the suggestion that villagers be polled on the location was not adopted.[146] Nonetheless with the difference in opinion over the new location, the previous resolution to build a school at Merrivale was rescinded. An attempt to reach a compromise, by finding a site between Merrivale and Foggintor, left the Committee 'equally divided.' With the debate over the new location raging, the Committee received a letter, much to their amusement, 'from a gentleman who hoped they would build no school at all, as he thought it would interfere with the amenities of Dartmoor.'[147] With the delay in finding a new site, both the Trustees and Mission Hall Committee pressed the Charity Commission for an extension to the closure date. The Commission were, however, unwilling, and the Mission Hall school finally closed on 27 September 1912.[148]

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[144] *Exeter Gazette*, 30 September 1912.
[145] *Western Daily Mercury*, 3 May 1912, p. 7.
[146] Ibid. 7 June 1912, p. 6.
[147] Ibid. 5 July 1912, p. 7.
[148] Stanbrook, *Old Dartmoor Schools*, p. 99.

With the quarry children now unprovided for, tenders were hastily invited for 'running a conveyance from Merrivale to take children to Tavistock or Whitchurch schools and back'. However, the unexpectedly high quotes for a 'wagonette' put paid to the idea.[149] As a stopgap, temporary schools were opened at both Merrivale and Foggintor. At Foggintor, the Wesleyan chapel was once again pressed into use as a school, reopening as such in March 1913. Rented by the Board of Education for five shillings a week, the school's logbook records that 'altho[sic] instructed by the County Authority that it is only to be an infant & junior school, the parents have sent all the children refusing to send them in to Princetown.'[150] Older children were allowed to attend the following month, after the council appointed a supplementary teacher for the infants.[151] At Merrivale, around forty children continued to be taught at a new location, in the quarry itself, close to the Walkham Cottages.[152] A 1913 entry in the Log Book complained that 'the work of the School is being conducted under great difficulty. A large traction is engaged in drawing and shifting heavy truck-loads of granite outside the windows, and it is almost impossible to hear either teachers' or children's voices at times.'[153] Even though the temporary schools were less than ideal, and the debacle over the new school had aroused much interest in the local press, construction of a new permanent school did not begin until May 1914. Located just half a mile to the east of the Mission Hall, the new 'Walkhampton Foggintor' school opened on 19 April 1915, with around fifty-five pupils. The temporary school at Foggintor closed in March that year, with Merrivale following suit in October.[154] The new building was a substantial structure. Constructed of stone with a slate roof, and rendered in cement, it featured wood-block floors and solid-fuel central heating.[155] During construction Henry Lopes had issued

[149] *Western Times*, 15 October 1912, p. 2; Ibid. 21 September.
[150] Stanbrook, *Old Dartmoor Schools*, p. 100; DHC: 760C/ESL/1, Foggintor Council Temporary School logbook, 11 March 1913.
[151] DHC 760C/ESL/1: 21 April 1913.
[152] Stanbrook, *Old Dartmoor Schools*, p. 100.
[153] Ibid. p. 102.
[154] Ibid. pp. 102-103.
[155] TNA: ED 21/49927 District Valuer's Office to Devon County Education Committee, 13 June 1935; Brewer, *The Railways, Quarries and Cottages*, p. 114.

strict instructions from where building stone could be taken, amid fears that the nearby antiquarian relics would be purloined by the builders. This concern for the environment was upheld by the school's headmaster, F. S. Stoyle, who remained in the role for the whole of the school's existence. Stoyle placed particular emphasis on ensuring that the children gained an appreciation of their surrounding area, with the study of Dartmoor's antiquities becoming part of the curriculum.[156]

The new school would prove to have a lifespan which barely exceeded that of its predecessor. While its construction had been in response to the pre-war isolation of the quarry communities, post-war it faced a new set of challenges. These were much the same as those encountered by the railway. The introduction of a local bus service in the mid-1920s meant that the distance between Princetown and the surrounding communities was no longer the barrier it had previously been. In 1931 a major reorganisation of the school saw the older children transferred to Princetown.[157] The ailing fortune of Dartmoor's granite industry further impacted attendance. Due to a decline in employment, the school, which had originally accommodated eighty children, had by 1935 only twenty-one pupils.[158] Amid protestations from the local community, the local Education Authority closed the school on 29 July 1936, the children being transferred to Princetown Council School.[159] Thereafter quarry children would walk to the Mission Hall, where a bus would then take them on to Princetown.[160]

Even before the school had closed there were concerns over the future of the building and its adjoining schoolhouse. Following his inspection in 1935, the District Valuer, F. W. Pinsent, cautioned that 'in my opinion the selling value of this property is exceedingly problematic'.[161] The local press took a slightly more optimistic view, believing the

[156] Stanbrook, *Old Dartmoor Schools*, pp. 103-104.
[157] Ibid. p. 107.
[158] *Exeter and Plymouth Gazette*, 14 June 1935, p. 10.
[159] TNA: ED 21/49927 Devon County Education Committee to Board of Education, 1 September 1936.
[160] Palmer, 'A Foggintor Family', p. 38.
[161] TNA: ED 21/49927 District Valuer's Office to Devon County Education Committee, 13 June 1935.

contemporary interest in the countryside provided an answer. The *Exeter and Plymouth Gazette* felt 'the future of the unwanted buildings is a problem, especially at Foggintor, which is exposed to Dartmoor storms, but there are hopes that they will not become derelict. Lovers of fresh air and nature in all her moods may have a chance to compete for possession.'[162] A 1936 advertisement described the property, which was 'substantially built… and in beautiful condition', as one which would 'make ideal tea rooms, dance hall, petrol station etc'. It was subsequently established however that the buildings were in an area where petrol stations were prohibited.[163] Initially sold to Mr and Mrs Chidwick for use as a private house, the property was shortly after acquired by Dr Adamson, who put it to use as a guest house and tearoom. During the Second World War, the influx of evacuee children saw the building temporarily revert to use as school, while it also served as a hospital during this period.[164] After the War, Adamson moved abroad for several years, leaving a caretaker in charge of the premises. The caretaker subsequently left without informing Adamson, and thereafter the buildings gradually fell into a state of disrepair. On one occasion the police reported 150 cadets, who, under the command of an officer, had broken into the property, dismantled part of the structure and used it for a fire.[165]

The abandoned Walkhampton Foggintor School in the early 1960s.
National Archives COU 1/490

[162] *Exeter and Plymouth Gazette*, 14 June 1935, p. 10.
[163] TNA: ED 21/49927 Devon County Council to Board of Education, 7 September 1936.
[164] TNA: COU 1/490 W. A. Ferris to Sir William Robson-Brown, 30 August 1962.
[165] Ibid.

With the formation of the National Park in 1951, the future of disused buildings gained a new significance. By the early 1960s the condition of the school buildings had become a concern for Devon Council's Park Planning Committee. In January 1962 they approached Adamson with the intention of purchasing and demolishing the property, only to be rebuffed, Adamson instead announcing that he intended to restore the buildings to use.[166] Adamson was later described by a local council official as having 'the character of an "absent minded professor" who intended doing things but nothing ever happened.'[167] During that year, W. A. Ferris entered into negotiations to lease the property, with the intention of turning it into a tea room and three housing units, 'and if possible petrol filling station and members' club.'[168] Having become aware of the Park Committee's desire to demolish the buildings, Ferris wrote to his local MP, Sir William Robson-Brown, in the hope of intervention. Citing several specific sections of the 1949 National Parks Act as support for his case, Ferris emphasised how the Committee's desire to 'refuse permission for any trade to be carried on or use made of the property' contradicted the aims of the Act. Framing his plans as a means of furthering the Park's aims, Ferris highlighted how 'owing to [a] lack of other facilities unsightly mobile canteens are to be seen on the moor'. Ferris elaborated how this situation resulted in part (1)(1A) of the Act being contravened, through 'litter and mess being deposited to the detriment of the natural beauty of the moor'.[169]

The Planning Committee, having turned down two of Ferris' planning applications, and with Adamson refusing to sell, decided to pursue a Demolition Order through the Ministry of Housing and Local Government. The National Park Commission, before agreeing to support the Order, sent Parks Commissioner Pauline Dower to visit the site. Dower's report back to the Commission was uncompromising. 'To propose a roadhouse and club out on this bare moorland, far from any centre except Princetown seems extraordinarily ill-judged. …If

[166] TNA: COU 1/490 DNP Planning Committee, 21 September 1962.
[167] TNA: COU 1/490 C. D. Benton, Tavistock Rural District Council, to Sir Keith Joseph, Minister of Housing and Local Government, 29 June 1963.
[168] TNA: COU 1/490 W. A. Ferris to Sir William Robson-Brown, 30 August 1962.
[169] Ibid.

accommodation or catering is lacking in that area, the proper place for it is in Princetown, not several miles out on the open moor.' Dower concluded that 'to have the whole structure removed and the site completely tidied is certainly the right decision'.[170] However, with both Adamson and Tavistock Council lodging an appeal, the matter went to an enquiry.[171] At the enquiry consideration was given to retaining the schoolhouse and putting it back into repair as a dwelling. In his report back to the Park Commission, Field Adviser Leslie Watson admitted 'there are other similar houses dotted about, and it would be difficult to argue that this house with its group of trees and stone walling adjacent to it would be inconsistent with the Dartmoor scene'.[172] The local Park Committee took a more hard-line approach. Providing evidence on their behalf was the Assistant Divisional Planning Officer to the Committee, Norman Mallett. Mallett made it clear that the site's historic connection to the granite industry made it incompatible with the Park's ethos. Relating how the area had in the past been home to buildings occupied by quarry workers, Mallett's statement was emphatic: 'as this source of employment has now ceased and buildings once used in this connection have become redundant and derelict the Dartmoor National Park Committee's aim is to restore the wild and open character of this part of the moor to its natural state.'[173] The enquiry recommended that the demolition Order be confirmed. The building was demolished in February-March 1964, the rubble being used to construct a new section of the Princetown-Yelverton road.[174] The Mission Hall suffered a similar fate, being demolished around the same time. When the previous occupant voiced dismay, a Maristow Estate spokesman responded that 'the National Park Committee have always wanted to pull it down. It was in a deplorable condition and was no use to anyone.'[175] The fate of these buildings throws into light the wider contemporary discussion around the nature of the Dartmoor landscape. At a public enquiry in June 1963, Foggintor Walkhampton School was described as being a

[170] TNA: COU 1/490 Report of visit to Four Winds, Pauline Dower, 14 November 1962.
[171] TNA: COU 1/490 H. G. Godsall to National Parks Commission, 26 April 1963.
[172] TNA: COU 1/490 Leslie Watson, report on Four Winds public enquiry, 21 June 1963.
[173] TNA: COU 1/490 Norman Mallett, proof of evidence for Four Winds enquiry, June 1963.
[174] Brewer, *The Railways, Quarries and Cottages*, p. 114.
[175] *Tavistock Times*, 18 August 1967.

‘grave disfigurement’ in a stretch of completely open moorland.[176] What constituted a ‘disfigurement’ and the concepts behind the need to remove them will be explored in the following chapter.

In the late nineteenth century, as the quarry workers hewed granite out of the moor for onward use in Gothic church restoration, they were unknowingly aiding a wider ideology which saw them reimagined as bastions of English national identity. Despite the rural associations which casual observers attributed to these workers, their presence was a direct result of the commodification and industrialisation of Dartmoor’s granite. As the next chapter will show, the ruralistic ideals which saw writers such as Warden Page venerate rural workers, would be the same ones that saw the quarry workers’ housing swept away following the creation of the National Park. In this post-war period symbols of modernity were deemed incompatible with the ideals of the new park; the industrial origins of the quarry workers’ housing determined their fate. Despite this, the park was unable to prevent the appearance of another form of modernity, in the form of a television mast erected at North Hessary Tor in 1955. Visible in a manner that the quarries never were, the mast continues to have a significant effect on the way the moor is experienced. Attempts at softening its impact saw the merging of the two forms of modernity, for when the Red Cottages were demolished in 1954, the reclaimed stone was used to clad the building at the base of the mast.[177]

[176] *Western Morning News*, 2 March 1964.
[177] TNA: COU 1/490 Norman Mallett, proof of evidence for Four Winds enquiry, June 1963.

The remains of the Red Cottages gradually return to the landscape. Overlooking the scene is King Tor, while beneath it the trackbed of the former railway cuts a green line through the landscape.
Author

Chapter Four

Rails, Ruins and Rurality:
Deconstructing Dartmoor's Landscape

'The hand of man, which has graced the countryside, is not always and everywhere so gentle.'

William Strang, *Dartmoor: Building in the National Park,* 1955

The Princetown line, having weathered the lean years of the 1930s, followed by the austerity of the 1940s, was unable to survive the 1950s. In 1954, under the chair of R. F. Harvey, Assistant Divisional Manager of the Western Region, the Western Region Branch Lines Committee investigated the branch, and in August produced a report recommending the line's closure.[1] The Branch Lines Committee had been formed by the British Transport Commission in 1949, with a remit to close the lines which were least used, on the contention that some parts of the network would never pay and provided minimal social value. Under the committee's jurisdiction over 3,000 miles were closed. This was several years prior to the publication of Richard Beeching's infamous 1963 report, *The Reshaping of British Railways*, which saw the widely publicised closure of countless uneconomical branch lines.[2] This raises the question as to why the line was closed during this earlier period. The closure of the branch was followed within a few years by the demolition of much of the infrastructure which identified the former route as a railway. Despite this development being the work of

[1] TNA: AN 174/96 Report of Western Region Branch Lines Committee, 1954.
[2] Christian Wolmar, *British Rail: A New History* (London: Penguin Michael Joseph, 2022) pp. 69-70.

the recently formed National Park, the train of thought which led to these demolitions had been set in motion at the time of the Princetown Railway's opening, three-quarters of a century earlier.

This chapter will show how a new appreciation for Dartmoor's landscape was born both out of its physical attributes and its cultural significance as common land, and how the railway brought a wave of concern over industrialisation and the wider effects of mass culture. In examining the attitudes towards the line's 1870s rebuilding, late-Victorian concerns over the moral impact of industrialisation become evident, while the associated rise of ruralism is reflected in broader attitudes towards accessing Dartmoor. The influences which led to the introduction of new passenger halts on the line were the same ones which would lead to the line's infrastructure being swept away post-closure, as a long-held desire to create a timeless aesthetic was implemented. Although the Princetown Railway failed to stimulate mass tourism, in doing so it protected the surrounding area from the sorts of developments which Victorian preservationists had sought state intervention to prevent. The increased concern during the inter-war years over the uncontrolled development of rural landscapes culminated in the passage of the National Parks and Access to the Countryside Act in 1949, and subsequent designation of Dartmoor as a National Park in August 1951.[3] The newly formed Park authority was not without its own issues, and when moves to deindustrialise Dartmoor's landscape began to play out, the process became embroiled in wider issues concerning the balance between local and central government and the extent of ministerial power. Management of the new park was shared between the National Parks Commission, and a sub-committee of Devon County Council's own planning committee. Containing passionate individuals, the Dartmoor committee often felt powerless in the face of both the County Council and British Transport Commission. These passions would at times bring them into conflict with the Park Commission, whose slowness to intervene would lead to the committee taking matters into their own hands. A democratic deficit has been argued to be

[3] Kelly, *Quartz and Feldspar*, pp. 219, 229.

rooted in the very concept of the National Park, which sees significant decisions for the moor being made by non-locals. Tom Greeves has argued how the park ‘experienced a new colonisation and influx of external interference’, drawing a parallel between the activities which followed the creation of the National Park in 1951, and the attempts 150 years earlier to colonise and improve the area.[4] According to Greeves, in both cases, this outside influence failed to understand the moor.

This chapter will begin by exploring the events which surrounded the closure of the line, including the role of the Park authorities in steering the debate. It will then examine the development of attitudes towards the moor’s landscape during the lifespan of the railway. In doing so, it will reveal the emergence of the preservation movement, the railway’s attempt to utilise public attitudes for commercial gain, and the way attitudes towards landscapes informed approaches towards buildings. The chapter will finish by looking at the process to remove traces of the line, and witness how the interactions between the newly formed Park authorities raised questions concerning who should be responsible for the area’s fate, as they collectively sought a means of dealing with the railway’s legacy.

End of the Line

Following nationalisation of the railways in 1948, the British Transport Commission was promoted as a ‘vehicle for the reconstruction of the economy’. The nationalised industries were expected to provide a common service across the country at uniform charges, differing costs of supply being ignored in favour of adopting a one-nation approach to economic issues.[5] This initially chimed with the previous ethos of the private railways, where within a given company, the lines which struggled to pay their way had to be subsidised by the lines which were profitable. However, this notion of the railway as a mature structure, which

[4] Greeves, ‘Dartmoor and the Displacement of Culture’, p. 13.
[5] Millward, ‘The 1940s Nationalizations’, p. 228-229.

needed to be maintained at a consistent mileage, came into conflict with post-war visions of modernity, while the treating of road and rail as a single transport system saw the necessity of railways revaluated. During a Commons debate in 1953, faced with questions over recent branch closures, Joseph Braithwaite, Parliamentary Secretary to the Minister of Transport, proclaimed that 'it really is not to be expected that the present railway network of Britain, most of which was built 100 years ago, is the right pattern for an age of highly developed road transport. Indeed, had the railways been constructed after the age of the horse instead of during that time, many of these branch lines would never have been laid down.'[6] His belief that 'we are getting into the stage in which rural areas are better served by road passenger services, whoever operates them, than by the railways', was shared by others in the House.

Braithwaite's playing of road against rail was not just a result of the two systems being brought together as a single network. The period was witnessing a dramatic shift in road use; between 1948 and 1956, car ownership increased from 1.9m to 3.9m. However, significant for the timing of the Princetown closure, this expansion was not linear. The immediate post-war period saw only a gradual increase in car ownership, domestic numbers being limited by both petrol rationing, and the mass export of new vehicles to raise funds against the national deficit. With the rationing of petrol ending in May 1950, followed by a rapid expansion of the economy, car ownership began to dramatically increase from 1952 onwards. With net receipts of £79m, 1952 marked the railways' best post-war financial result; by 1956 they were reporting a net operating deficit of £16.6m, by which time traffic counts indicated that noticeably more passenger-miles were being travelled by car than by train.[7]

During the inter-war period the railways had been keen to emphasise that their problems chiefly arose from the impact of road transport on their operations. By focussing on this area, the companies deflected attention away from any lost opportunities which had arisen either

[6] Hansard HC Deb (21 October 1953) Vol. 518 col. 1990.
[7] Barker and Savage, *An Economic History*, p. 212-220, 223.

from a lack of investment, or from their failure to standardise and coordinate between each other, scenarios which played into the hands of those who favoured nationalisation.[8] When nationalisation of the transport industries did occur, however, it failed to negate the impact of road transport on the railways, and instead created a conflict of interest which the Princetown closure exposed. In their report on the line, the Branch Lines Committee stated that 'in order to attract additional traffic, it would be necessary to introduce cheap tickets at fares below the existing road fares which would, undoubtedly, be strongly resisted by the Western National Omnibus Co. Ltd. (also B.T.C. owned)'.[9] The bus company, which had been initiated in 1929 as a joint venture between the GWR and the National Omnibus & Transport Company, now stifled the railway's ability to compete.[10] Rail-borne passenger traffic from Dousland had been declining since the introduction of bus services in 1931; by 1954 there were twelve busses a day in each direction to Plymouth.[11] The scarcity of passenger numbers was illustrated in a more detailed report circulated among Western Region officers in April 1955. The daily number of passengers carried on the line during Summer weekdays was 209, increasing to 223 on Saturdays, with the equivalent figures for Winter being 108 and 123. This meant that in Summer, on average, each train carried only twenty people, while in Winter the number was as low as eleven.[12] The busiest trains were those primarily used by local people, being the 7:35 a.m. from Princetown, and the 7:00 p.m. from Yelverton, the former carrying thirty-five passengers during weekdays, while on Saturdays the latter boasted a complement of sixty people. Eight to ten school children also regularly travelled from Dousland to Princetown.[13] Freight traffic was also declining. There were two freight trains a day to Princetown, with one in the reverse direction. In 1954 the

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[8] Crompton, 'Efficient and Economical Working?' p. 233.
[9] TNA: AN 174/96 Report of Western Region Branch Lines Committee, 1954.
[10] *The Times*, 16 April 1930, p. 22.
[11] George Henry Anthony, *The Tavistock Launceston & Princetown Railways* (Surrey: Oakwood Press, 1971) p. 95; TNA: COU 1/476 British Transport Commission Memorandum: Proposal to close the branch line from Yelverton, 28 April 1955.
[12] TNA: COU 1/476 British Transport Commission Memorandum: Proposal to close the branch line from Yelverton, 28 April 1955.
[13] TNA: AN 174/96 Report of Western Region Branch Lines Committee, 1954.

total amount of freight dealt with at Dousland and Princetown was 2,547 tons, of which 1,362 tons was coal, while a further fourteen wagons of livestock were also handled. This was down from the 2,947 tons of freight and twenty-two livestock wagons carried in 1952.[14]

While the line suffered decreasing revenue in the face of road competition, this was not the only financial hit it received. The running costs did not remain static. On a national level the railway's proportion of UK capital investment was falling; far more capital was invested in roads and road transport, with railway investment not reaching pre-war levels until 1956.[15] This was set against the existing backlog of investment brought about by the war and pre-war depression, so that by the time of the Branch Lines Committee report the Princetown branch was suffering from considerable maintenance arrears. The water tanks at Princetown and Yelverton were reported as being 'in a very bad condition' and in need of replacement, while a further £5,300 of expenditure was expected over the next few years on track relaying, bridge repairs and station painting. Were the branch to be closed, the estimated maintenance cost for the bridges and fencing would be reduced to £500 per annum.[16] The withdrawal in the mid-1950s of the 4400 class locomotives, which had worked the line for the vast majority of the twentieth century, would have further increased concerns over the condition of the bridges. Due to the line's steep gradients, sourcing locomotives with adequate power was problematic, as, despite the claim by the GWR's engineer in 1882 that the Princetown Railway directors had been provided with 'a thoroughly good railway', the line had been constructed to lightweight standards, limiting the size of usable locomotives to those in the lightest of the GWR's weight categories.[17] With the 4400 class no longer available, the nearest equivalent class would have required the line to be upgraded before they could be used on a regular basis.

[14] TNA: COU 1/476 British Transport Commission Memorandum: Proposal to close the branch line from Yelverton, 28 April 1955; TNA: AN 174/96 Report of Western Region Branch Lines Committee, 1954.
[15] Bagwell, *The Transport Revolution*, p. 303.
[16] TNA: AN 174/96 Report of Western Region Branch Lines Committee, 1954.
[17] TNA: RAIL 578/3, W. L. Owen to A. L. Jenkins, 12 December 1882; GWR Engine Route Map, 1931, available at Warwickshire Railways https://www.warwickshirerailways.com/misc/misc_equip195.htm, accessed 1 December 2022.

In addition to physical deterioration, social changes also effected the line's expenses. The end of the Second World War witnessed an increase in demand for labour, together with better wage conditions than had existed prior to the war.[18] The Labour Party had long argued the case for nationalisation as a means of improving the pay and conditions of railway employees; however when nationalisation did occur this expense proved a significant burden for the railway, which had already been forced to introduce pay cuts in 1928 and 1931.[19] The staff for the Princetown line consisted of a station master (class 5), passenger guard, porter guard, four signalmen, crossing keeper, two drivers, two firemen, three lengthmen, a sub-ganger and a ganger. Of all the line's expenses, the single largest was for the train working staff, at £2,803, while the cost of traffic staff (i.e. those used at stations) came to £2,527, with a further £1,884 needed for permanent way staff.[20] By closing the line it was estimated to create an annual saving of at least £9,152.[21]

All these figures, and more, were carefully collated by the Branch Lines Committee. The committee noted that the construction of a television mast at Hessary Tor was the 'only new development of importance in the district', but the additional traffic anticipated from new houses constructed for the BBC's employees 'would manifestly not be sufficient to justify the retention of rail facilities.'[22] A subsequent report also asserted that 'there is little prospect of any development likely to lead to an improvement in rail traffic sufficient to make the branch an economic proposition.'[23] With the operation of the branch 'clearly no longer an economic proposition', it was the committee's recommendation 'to close [the] line completely and recover track and redundant facilities.'[24] Freight services would be replaced by British

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[18] R. Matthews, 'Why has Britain had full employment since the War?', *Economic Journal* Vol. 78, No. 3 (1968): p. 560.
[19] Watts, 'On the Causes', p. 7; Crompton, 'Efficient and Economical Working?' p. 229.
[20] TNA: AN 174/96 Report of Western Region Branch Lines Committee, 1954.
[21] TNA: COU 1/476 British Transport Commission Memorandum: Proposal to close the branch line from Yelverton, 28 April 1955.
[22] TNA: AN 174/96 Report of Western Region Branch Lines Committee, 1954.
[23] TNA: COU 1/476 British Transport Commission Memorandum: Proposal to close the branch line from Yelverton, 28 April 1955.
[24] TNA: AN 174/96 Report of Western Region Branch Lines Committee, 1954.

Railways cartage vehicles, with goods for Princetown being collected from Tavistock South station, while Dousland would be served by Horrabridge station for larger consignments, and Tavistock South for 'smalls'. The use of lorries to deliver goods to Dousland had been in operation for some time, while by this point in time Post Office mail was no longer being carried by the line, and it was felt that the 'small quantity' of newspaper traffic could be adequately carried by the bus.[25] However, before the proposal could be put into action, it had to negotiate the bureaucratic layers of governmental procedure, during which time it would begin to expose the frictions within the National Park hierarchy. The complex process required to shut down a line was visibly illustrated during a 1953 Commons' debate over line closures, with Alan Lennox-Boyd, Minister for Transport and Civil Aviation, explaining that on the Branch Lines Committee proposing a closure,

> this matter goes to the Railway Executive. They consult the Transport Users Consultative Committee. Before they even go to the Transport Commission they have the views of the local people on the proposal. The local authorities… can appear before that local inquiry. Then they go to the Commission. The local inquiry will look, among other things, at what other facilities are available. …If the Transport Users Consultative Committee wish, the matter then goes to the Central Committee and, if there is any difficulty there, it eventually comes to me.[26]

At the beginning of 1955 the proposal for closure was circulated among Western Region officers, who were provided with a more detailed version of the 1954 Branch Lines Committee report.[27] In May the National Park Commission contacted the Western Region in order to get clarification on the railway's future, after they had recently become aware of the plans to close the line. After consultation with the Western Region General Manager's Department, the latter confirmed that an official statement would be released within two weeks, the Commission's representative reporting that 'it appears that local railway

[25] TNA: COU 1/476 British Transport Commission Memorandum: Proposal to close the branch line from Yelverton, 28 April 1955.
[26] Hansard HC Deb (28 July 1953) Vol. 518 col. 1261.
[27] TNA: AN 174/96 BR memorandums 9 and 18 February 1955.

representatives have been a little indiscreet hence the premature outbursts from various sources.'[28] These 'outbursts' referred to comments which had recently emerged in the national press, after the closure proposals had been leaked to the Dartmoor Park Committee, who publicly resolved to oppose it. Some of these outbursts had come from Sir Henry Slesser, recently appointed Chairman of the Dartmoor committee, who in taking a pro-active role attempted not only to reinforce his position, but also counteract the limited power that the Dartmoor Committee held in comparison to the Park Commission. Indeed, such was Slesser's desire for the committee to maintain the initiative, that the commission found itself lagging behind, gleaning information on the existing train service from newspaper reports, and only receiving a copy of BR's official report seven days before the intended South West Transport Users Consultative Committee enquiry at Bristol on June 10.[29]

In an echo of the debate which had emerged over eighty years previously during the construction of the Princetown Railway, questions quickly materialised over who the railway was for, and who should be accommodated when deciding its fate. Here the Park Commission and Park Committee diverged in opinion. The latter, under the influence of Sir Henry Slesser, unanimously decided to oppose the line's closure.[30] As a former Labour politician who had been a strong advocate of 'Distributism', Slesser opined in the press 'the absurdity' of the situation, given that the GWR, which had been bound by statute not to cease running trains, had been nationalised on the understanding that it would allow for the provision of a better service. Sir John Shelley, Chairman of Devon County Council, similarly laid the blame for this situation on the ethos of nationalised industries which did not 'care a lot what they did if they were not making a profit.'[31] With the railways having been nationalised by Labour, but now under Conservative control, opposition to the closure could be a politically delicate matter. Tavistock Conservative MP Henry Studholme campaigned

[28] TNA: COU 1/476 Letter to Helen Douglas, 14 May 1955.
[29] TNA: COU 1/476 Letter to Harold Abrahams, 11 May 1955; F. G. Dean, Assistant District Traffic Superintendent Plymouth, to Harold Abrahams, 3 June 1955.
[30] *Bradford Observer*, 27 April 1955, p. 5.
[31] *The Times*, 21 April 1955.

'strongly' to keep the line open, albeit 'behind the scenes'.[32] Slesser, as a member of Devon County Council, focussed his concern on the residents of the moor. With many of those affected either working or educated in Plymouth, Slesser's chief anxiety was the lack of any existing or planned bus services between Princetown and Plymouth; he claimed in the national press that closure would leave more than 2000 people isolated.[33] However, to get the Park Commission onside required a slightly different emphasis. In a letter to Lord Strang, chair of the National Parks Commission, Slesser, while briefly mentioning that he was 'concerned for other than Park reasons', deflected attention away from the moor's population, and instead emphasised that residents from the Plymouth district who did not drive would no longer be able to visit the moor.[34] This was a sentiment he repeated later that month to Park Commission secretary Harold Abrahams, when, on learning of the proposed alternative bus service, he wrote with indignation that there was 'nothing to enable anyone in Plymouth or surrounding district to reach the moor at any time save at night!'[35] In a further letter to Strang, Slesser wrote that he had been asked by Devon County Council to argue their case before the Transport User Committee's enquiry in Bristol, again proffering the argument that the proposal for one bus departing from Princetown in the early morning and returning at night would deprive the Plymouth district of public transport access to the moor.[36] While Slesser's campaign centred on keeping the railway, rather than introducing an improved bus service, the focus on public access rather than local convenience played neatly into the Park Commission's outlook, whose 'primary interest', they asserted to the Transport Users Committee, 'is the accessibility of the Dartmoor National Park'.[37]

Following the official statement by the BTC, the Dartmoor Committee asked the Park Commission to support their objection to the closure. The Park Commission decided not to

[32] *Western Morning News*, 4 May 1955.
[33] *The Times*, 21 April 1955.
[34] TNA: COU 1/476 Sir Henry Slesser to Lord Strang, 4 May 1955.
[35] TNA: COU 1/476 Sir Henry Slesser to Harold Abrahams, 27 May 1955.
[36] TNA: COU 1/476 Sir Henry Slesser to Lord Strang, 30 May 1955.
[37] TNA: COU 1/476 Draft of letter from National Park Commission to Transport Users Consultative Committee. Undated.

oppose the move.[38] Instead the commission decided that 'on the evidence available it would be difficult to support Sir Henry Slesser in his plea that the branch line remain open', their concern moving instead to ensuring the provision of better bus services, with times which were convenient for travellers and which did not require a long wait at Yelverton.[39] The commission's principal concern was that the proposed bus arrangements were designed to take people from, rather than to, Princetown.[40] Slesser came up against further opposition at an initial meeting of the Transport Users Committee. Despite Slesser's claim that the line was one of the most scenic in Britain, which tourists could be encouraged to use, BR's S. C. Harvey, in referencing the 102 branch lines which had already been closed since nationalisation, echoed the view that the age of the railway had passed, dismissing Slesser's ideas with 'we have heard all these arguments so often before, and one wonders how people managed to live before there were railways.'[41] Notwithstanding Harvey's views and the Park Commission's stance, at an enquiry in September 1955, the Transport Users Committee concluded that the line should remain open. Although the Committee recognised that it was unlikely that the branch could be run on an economic basis, the geographical location of Princetown was considered to put road traffic at a disadvantage, while the presence of the prison 'introduce[d] an exceptional set of circumstances which cannot be ignored.'[42] During a meeting in July, the Committee's position had been reinforced by objections to closure from Dartmoor prison officers and local people.[43] The closure resolution therefore passed to the Central Consultative Committee for a final decision.

Throughout this period the branch was regularly referred to in the press as the 'Prison Line', a term which did not find favour among the railway's staff, with its implication that the line was run by convicts.[44] Although the jail's derelict state had provided the impetus for

[38] TNA: COU 1/476 Extract from minutes of the National Park Commission, 14 June 1955.
[39] TNA: COU 1/476 Extract from minutes of the National Park Commission, 15 June 1955.
[40] TNA: COU 1/476 Note from Helen Douglas to Lord Strang, 20 June 1955.
[41] *Bradford Observer*, 9 July 1955, p. 5.
[42] *The Times*, 10 September 1955.
[43] *Manchester Guardian*, 10 September 1955.
[44] Colin Bastin, *Railway Tracks to Princetown* (Plymouth: C.H. Bastin Publishing, 1988) p. 13.

construction of the original tramway, and despite it being the focal point for Princetown, the prison had long been an indifferent neighbour to the railway. Now the building, together with the Dartmoor landscape, presented the railway with a potential lifeline. The facility had not been overlooked by the Branch Lines Committee in their original report, being a 'special feature of this case… in respect of which a quantity of freight traffic is received and forwarded by rail.' Nonetheless, the report continued, 'it is significant, however, that all the coal traffic for the Prison has for some time past been seaborne to Plymouth and conveyed thence by road to Princetown.'[45] The prison authorities had moved away from using the railway for transporting convicts during the early 1930s, preferring instead to ship them by road from the Southern Railway station at Tavistock. During the Second World War the transportation of prisoners had reverted to the branch, but this had largely ceased by the early 1950s.[46] Addressing the Transport Users Committee, Harley Cronin, general secretary of the Prison Officers Association, recalled how during the war it had been common for prison officers to resign on being notified of their assignment to Dartmoor, and it was feared that closing the railway would further increase their reluctance to go there.[47] Following their enquiry in October, the Central Transport Consultative Committee recommended that before making a final decision, the BTC should enter into discussions with the Prison Commission in 'an endeavour to obtain substantially increased rail revenue'. In early 1956, after this failed to be productive, the BTC informed the Park Commission of their intention to close the line in just over a month's time, on 5 March.[48]

Its fate now sealed, the line became the focal point for renewed concerns over the ethos of nationalised industry, with the closure considered to have set a dangerous precedent. While private ownership had not emerged from the inter-war years with a particularly good reputation, the closure of the branch invoked a longing for the days of the private railways,

[45] TNA: AN 174/96 Report of Western Region Branch Lines Committee, 1954.
[46] Anthony, *The Tavistock, Launceston & Princetown Railways*, p. 95.
[47] *Bradford Observer*, 9 July 1955, p. 5.
[48] TNA: COU 1/476 BR District Traffic Superintendent, Plymouth, to National Parks Commission, 1 February 1956.

with the old companies seen to embody a benevolence now thought to be lacking. 'Did it ever pay, even in the days of the old GWR?' wondered the Cornish press. In their view the closure was a 'flouting not only of local needs but of responsible public opinion', and instead of focusing on individual lines and the profitability of each mile of track, 'the takings of the whole ought to be the only consideration'.[49] In Cornwall there was a particular concern that the county would be 'very vulnerable' to such hard economics. If all the branch lines which did not pay were to be closed, then several in Cornwall would disappear, as such 'the decision of British Railways to close the branch line to Princetown may be of more than local significance, and ought, for that reason, to put local authorities in other parts of the West-country on the alert.'[50] In east Cornwall, Callington Parish Council debated whether to ask the BTC for assurance that no such proposal would be contemplated for the Bere Alston line. It was decided to defer the matter, an attendee commenting 'I think it is well to let sleeping dogs lie.'[51]

Briefly the line was national news. *The Times* reported on the debate leading up to the closure decision and noted the passing of the last train.[52] The regional press also picked up on the story. A few days before closure a photograph appeared on the front page of the *Halifax Daily Courier* of an 'al fresco tea party' on Princetown platform, the reporter lamenting the 'background of sadness to this jolly', organised to celebrate the last hours of the 'Dartmoor Express'.[53] The last day itself came on Saturday 3 March. Although the branch staff had not wanted a line closing ceremony, preferring instead to 'pack up their belongings and go quietly home', the *Daily Telegraph* reported that 'throughout Saturday the service carried a record number of passengers. An extra booking office was opened at Plymouth, while at Yelverton, the junction for the branch, police controlled the queue.'[54] In addition to

[49] *Cornish Guardian*, 2 February 1956, p. 9.
[50] Ibid.
[51] Ibid. 16 February 1956, p. 5.
[52] *The Times,* 27 April, p. 9; Ibid. 4 July, p. 5; Ibid. 22 July, p. 4; Ibid. 5 March 1956, p. 3.
[53] *Halifax Daily Courier*, 1 March 1956, p. 1.
[54] Kingdom, *The Yelverton to Princetown Railway*, p. 97.

the 550 people who boarded the first train from Yelverton, another 500 remained on the platform watching it depart. The unprecedented level of interest resulted in an unusual sight on the line; where 'normally the train is of one engine and one carriage… on Saturday it comprised six coaches and two engines.'[55] The final train of all was the 8.30 pm from Princetown, which departed to the sound of long whistles and exploding track detonators, together with cheers and strains of Auld Lang Syne from the group of well-wishers who stood on the dark platform, lit only by a few dangling oil lamps, swaying slowly in the thick mist. With the earlier scenes at Yelverton later described as 'almost a madhouse', the irony of all this was not lost on the reporter from the *Western Evening Herald*, who noted that 'watching the crowds of people milling about the station platform after the arrival of one of the trains, one of the railway staff observed: "if only they had always used it so frequently we should never have been closed down."'[56]

In the wake of the line's closure, an approach was made to both Lydford Parish and Devon County Councils by Tom Morshead, who proposed reopening the line as a narrow-gauge railway, and running it with volunteer labour. While the proposal was initially supported by the councils, the suggestion quietly disappeared after it was revealed that Tom Morshead was a seventeen-year-old schoolboy from Tavistock, who had been inspired by the plot of the Ealing Comedy *The Titfield Thunderbolt*.[57] There would be no reprieve for the line; track lifting began at Princetown in October 1956 and reached Yelverton by the end of the following March. Although the removal of track was typically the most symbolic act of a railway closure, the desire of the recently formed National Park to rewrite landscape history saw the Princetown branch subjected to an extra level of demolition. The administrative and physical processes by which the railway would be removed from the landscape had already begun while trains were still running, and shortly before the line closed, workmen set to at Princetown, tearing down partitions and fences and boarding up the station's windows with

[55] Ibid; Bastin, *Railway Tracks to Princetown*, 14.
[56] Ibid; Kingdom, *The Yelverton to Princetown Railway*, p. 97.
[57] *Daily Mirror*, 10 September 1956, p. 5.

the reclaimed wood. The resultant spectacle was such that a reporter on the final day commented 'although its last train does not steam in until tonight, Princetown Station already wears a look of decay'.[58]

Within five years the site had been cleared of all railway infrastructure. The removal of these buildings was not an isolated case. Tom Greeves, a 'cultural environmentalist' with a formal background in archaeology, has spent his entire career focused on the moor. Critical of the National Park's disregard of industrial heritage, in his view the 1960s witnessed 'a self-congratulatory orgy of destruction [which] swept away scores of interesting and valuable buildings without any record being made of them.'[59] The cultural processes which ultimately led to these demolitions had begun decades earlier, with attitudes towards Dartmoor having undergone a seismic shift during the lifespan of the railway to Princetown. It is the evolution of these attitudes which will now be explored.

The Sanctity of Common Land

Visits to Dartmoor for leisure purposes were first recorded towards the end of the eighteenth century.[60] At this period desolate landscapes such as Dartmoor were considered uncultured and in need of reformation, the original Plymouth and Dartmoor Railway having been constructed as part of a wider movement to bring civilisation to these barren areas. Contemporary writers often wrote as if in fear of the moor; in April 1820, the correspondent for the *Monthly Magazine*, wrote of the 'Desert of Dartmoor', warning the reader that 'in many parts it is greatly infested with bogs, of a most dangerous description'.[61] Others took a more apathetic view of the moor's unproductiveness; Plymouth born artist John Northcote

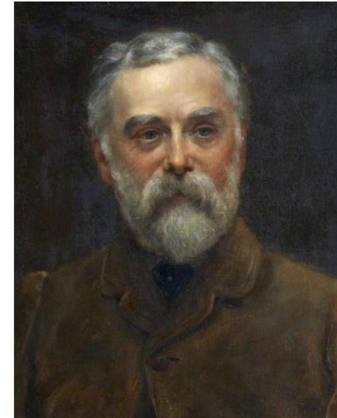
[58] Kingdom, *The Yelverton to Princetown Railway*, p. 97.
[59] Greeves, 'Dartmoor and the Displacement of Culture', p. 17.
[60] Brian Le Messurier, 'Recreation,' in Crispin Gill, (ed.), *Dartmoor - A New Study* (Newton Abbot: David & Charles, 1970) p. 231.
[61] 'Observations on the Intended Cultivation of Dartmoor', *Monthly Magazine*, vol. 49, 338, (1820) p. 217.

(1746-1831) simply thought that Dartmoor 'was not worth painting'.[62] Yet while Johnson Brothers were busy blasting stone out of Foggintor, attitudes towards Dartmoor were beginning to change, and within a few years of the tramway's opening the aspiration to 'civilise' Dartmoor through cultivation had faded. Some simply considered the moor landscape incapable of redemption. In 1833, a writer in *Blackwood's Magazine* related how the poet Carrington envisioned the wilderness of Dartmoor being completely transformed into a land of 'high-cultured fields' and 'flower-fringed streams', a proposition the author deemed 'midsummer madness.' In the author's view, 'the railway was a noble undertaking, …and much lime, coals, timber etc. were at one time conveyed up, (how is it now?) and granite, etc. brought down; but Dartmoor is still Dartmoor, and will be till Doomsday.'[63] The failure of widespread cultivation to be introduced onto the moor was not just a result of the unsuitability of the soil or the monopolising of the tramway by Johnson Bros. On a local level, the death of Tyrwhitt in 1833 deprived the area of its main champion for the cause, while nationally, the demand for self-sufficiency gradually diminished, after the peace which followed 1815 proved to be an enduring one.[64] Improvements in communication and the development of free trade following the repeal of the Corn Laws meant that by the middle of the century, cheap imported food had become easily available, further diminishing the perceived need to cultivate unproductive land.[65]

This changing climate contributed to a reappraisal of landscapes and a revaluation of the types of utility they offered. In contrast to the negative view of uncultivated land held by seventeenth and eighteenth-century writers, the nineteenth century saw increasing value placed on landscapes which had previously been deemed as bleak and barren. This new admiration for moorland was linked to a desire to preserve amenity; the personal enrichment provided by unaltered landscapes. Tied to this was the defence of common land. By the

[62] Kelly, *Quartz and Feldspar*, p. 202.
[63] 'Devon and Cornwall Illustrated', *Blackwood's Magazine*, April 1833, p. 691; Kelly, *Quartz and Feldspar*, pp. 57-69.
[64] Howe, 'Britain and the World Economy', p. 19.
[65] Winter, *Secure from Rash Assault*, p. 25.

1870s, public opinion had turned against enclosures and removal of commoners' rights. Commons were seen as a legacy of an older England, an inheritance which could be repurposed in the age of large-scale urbanisation and industrialisation, and which embodied individual freedom and liberty, characteristics which the Victorians strongly associated with national identity.[66] Much of the debate over Dartmoor's future was stimulated by William Frederick Collier, who became a champion for the moor's preservation. Heralding from a long-established family of Plymouth quakers, Collier was a founding member of the Devonshire Association's Dartmoor Committee. He first raised concerns over the treatment of Dartmoor's landscape during an anti-enclosure address to the Association in 1876.[67] Disdainful of the loss of common land to 'that most abominable of abominations, the enclosures', Collier considered these developments not only immoral, but a prerequisite to further destruction of the moor; 'no abomination can make progress without an enclosure.'[68] Collier framed enclosure as a radical and revolutionary change, and as such 'a very alarming thing.'[69] In doing so he reflected wider emerging concerns over the impact of modernity on traditional ways of life, which over several decades would play a key role in shaping the desire to preserve the moor. Collier's aspirations were bolstered by developments elsewhere, particularly the 1877 New Forest Act, a landmark piece of legislation which sought to protect common rights and provide public access, and which acknowledged that public interest in the natural environment was no longer primarily economically driven but instead had a social and cultural basis.[70] His view was echoed by others. Thomas Edward Scrutton, a successful commercial lawyer, complained in 1881 that



W. F. Collier.
The Box, Plymouth

[66] Readman, *Storied Ground*, p. 166; Paul Readman, 'Octavia Hill and the English Landscape', in Elizabeth Baigent and Ben Cowell (eds.), *Octavia Hill, Social Activism and the Remaking of British Society* (London: University of London Press, 2016) p. 169.
[67] Kelly, *Quartz and Feldspar*, p. 202.
[68] William Frederick Collier, 'Dartmoor', *Reports and Transactions of the Devonshire Association,* Vol. 8 (1876) pp. 371, 374-375.
[69] Ibid.
[70] Readman, *Storied Ground*, p. 184.

‘the speculative builder and the wealthy landowner alike prey upon roadside wastes, and neighbouring Commons’, adding ‘the poor, who are deprived of any interest in the land, and the public, more and more restricted to the hard high road, are affected by the Policy of Enclosure and Individualism’.[71] The desire to protect common land persisted throughout the new railway’s existence. When in October 1956 moves for demolition of the railway were underway, Mr Scott of the Dartmoor Commoners Association expressed concern that the fences across Walkhampton Common should be retained, as they prevented cattle ‘belonging to persons who had no common rights’ from straying onto common land.[72] The formation of such an association and the parallel concern for commoners’ rights represented a marked change from the ambitions of Tyrwhitt, when enclosure of the moor had been a principal aim.

Landscape Preservation

One of the earliest writers to attribute value to the moor was Samuel Rowe, who during the middle of the nineteenth century had felt of Dartmoor ‘but wild as it is, it is not “all barren.”’ Rowe recognised that the more dramatic landscapes evoked their own appeal; ‘the native rudeness and untamed simplicity of these upland solitudes, become subjects of the deepest interest to those who find pleasure in contemplating nature in her sterner moods and more austere aspects’.[73] His 1848 *Perambulation of Dartmoor* was the most significant of the earlier works on Dartmoor, remaining the most comprehensive guide to the moor until William Crossing’s *Guide to Dartmoor* of 1909.[74] In providing a detailed account of the ancient stones of Dartmoor, Rowe hoped that interest in the area would be stirred, enabling the stones to be better protected from ‘the manifold modes of spoliation and destruction

[71] Stout, ‘Uncommon Lands’, p. 272.
[72] TNA: COU 1/476 DNP Planning Committee, 16 October 1956.
[73] Rowe, *Perambulation*, p. 8.
[74] Kelly, *Quartz and Feldspar*, p. 24.

which have arisen from multiplied population, increasing commercial speculations, and economical improvements.'[75] With the South West held by Rowe as the last great refuge of Britain's ancient past, the author was not slow to express his concern that industrialisation of the moor threatened to wipe away the last vestiges of prehistoric culture. The commodification of granite represented the biggest threat, but it was not the only one. Of the stones, Rowe worried that 'their rocky citadel is no longer secure. Quarries are opened on the heights of Dartmoor – powder mills are projected in the very heart of its solitudes – cultivation is smiting its corners – steam is marshalling his chariots of iron, and coursers of fire, panting to penetrate its fastnesses, - and the most interesting vestiges of antiquity are in hourly danger of destruction.'[76] Rowe, however, stopped short of showing outright concern over the spoilation of the landscape itself. The idea of actively preserving Dartmoor's landscape began to take a more serious hold at the time of the construction of the Princetown Railway. The year of the line's opening, 1883, also witnessed the formation of the Dartmoor Preservation Association.[77]

It was the plethora of schemes for a new railway to Princetown which fuelled Collier's concern for the future of the moor. Collier saw these proposals as part of the insatiable draw of Dartmoor, there being an ever-present desire to appropriate the moor in some form, and like the archaeologists and etymologists, 'it is even thus with the railway enthusiast. He has caught sight of Dartmoor, his emotions have received an impulse, his steam is up, and he wants to make a railway to Prince Town, reckless of the beauties that he will destroy, and of the money he must inevitably throw away.'[78] This was a time of heightened interest in the condition of the lowest classes. This interest manifested itself not only as a 'shamed sympathy', but also as an 'attraction of repulsion'.[79] It was Collier's fear that the railway

[75] Rowe, *Perambulation*, p. iv.
[76] Ibid.
[77] Le Messurier, 'Recreation,' p. 236.
[78] Collier, 'Dartmoor', p. 378.
[79] Seth Koven, *Slumming: Sexual and Social Politics in Victorian London* (Princeton: Princeton University Press, 2004) p. 4.

would aid the spread not only of the wrong kind of industrial civilisation, but also introduce the wrong type of tourist, and only 'carry a few convicts, and some pleasure-seekers, who with an infinite lack of taste go there to stare at the convicts and make merry'.[80] While long working hours, low wages, and the slow take-up of paid holidays meant that for many Victorians and Edwardians the ability to travel for recreation was out of reach, a large enough proportion of the population was mobile that concerns over the impact of popular tourism on the countryside were being aired as early as the 1860s, with suburban growth and recreational use of the countryside considered as one of the key threats of mass culture.[81] As early as 1906, William Crossing felt that Lee Moor, lying on the southern edge of Dartmoor, and easily accessible from Plymouth, provided a more secluded location 'in comparison with the numbers that flock to Princetown'.[82] By comparison to Collier, fellow Dartmoor preservationist Robert Burnard took a different view on the proliferation of visitors, believing instead that preservation and public access were intertwined. Burnard felt that while the railways, 'which now encircle the moor on every side…[brought] each year larger numbers of roving holiday makers intent on sport, the picturesque or the curious', in doing so they were spreading awareness of the moor's amenity value. Protecting this amenity would be the basis for protecting the moor from development. 'Whether this increasing popular appreciation is an unmixed blessing,' wrote Burnard, 'as far as the romantic seclusion and solitude of this primeval region is concerned, may be questioned, but on the other hand, it must be granted, that the more persons there are who take an intelligent interest in the matter, the more likely it is, that this vast playground will be preserved for popular use and enjoyment.'[83]

[80] Collier, 'Dartmoor', p. 378.
[81] Winter, *Secure from Rash Assault*, p. 211; Catherine Brace, 'Finding England Everywhere: Regional Identity and the Construction of National Identity, 1890-1940', *Ecumene* Vol. 6, No. 1 (1999) p. 106.
[82] Crossing, *Dartmoor Worker*, p. 81.
[83] Robert Burnard, 'Dartmoor Preservation', in William Henry Kearley Wright (ed.), *The Western Antiquary; or Devon & Cornwall Notebook Vol. 9* (Plymouth: W. H. Luke, 1890) p. v.

Aside from concerns over the importation of the 'wrong' kind of tourist and the resultant spoilation of tranquillity, a widespread reappraisal of industrial development meant that railways sat uncomfortably with the newly recognised amenity value of the moor, and in making the case for legal protection of landscapes, it was Collier's hope that it would ensure 'no ugly noisy railway go through them'.[84] Throughout their history railways have been intrinsically linked with industrialisation, however by the turn of the twentieth century the line to Princetown was no longer the technological marvel it had been in Carrington's time, and instead of being considered a spectacle, was viewed merely as a form of conveyance. Whereas in the 1820s Carrington had extolled how 'the peasant views, amazed' as 'along the iron way the rocks gigantic slide', by 1899 Beatrix Creswell's guide to Dartmoor gave the railway only the briefest of mentions, and the quarries none.[85] Writing around five years after Creswell, Crossing felt that a railway on Dartmoor was 'an incongruity no one who has real love for it can deny. The very essence of the moor is its primeval character, and anything that detracts from this is a blemish. But gold weighs much heavier than sentiment.'[86] Crossing, in bemoaning the railway's disruption to the amenity of the moor's timelessness, echoed the earlier views of cultural critics such as Ruskin and Matthew Arnold, as well as authors Anthony Trollope and the later works of Dickens, who collectively had become repelled by the concept of economic growth being a social ideal.[87] The Victorians were, in the words of Heidi Scott, 'conscious that their pollution was unprecedented, and they perceived in it not just ecological impacts, but moral culpability too', while Barrie Trinder has contended that as early as 1840 the industrial landscape 'became a source of shame'.[88] Martin Wiener, writing in the early 1980s, famously espoused the view that Britain's long-term economic development had become stifled by a wariness of capitalist expansionist

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[84] William Frederick Collier, 'The Purchase of Dartmoor', *Reports and Transactions of the Devonshire Association,* Vol. 28 (1896) p. 199.
[85] Nicholas Carrington, *Dartmoor a Descriptive Poem* (London: Hatchard and Son, 1826) p. 14; Beatrix Cresswell*, Dartmoor and its Surroundings* (London: Beechings, 1899)
[86] Crossing, *Dartmoor Worker*, p. 126.
[87] Wiener, *English Culture* pp. 31-32.
[88] Heidi Scott, 'Industrial Souls: Climate Change, Immorality, and Victorian Anticipations of the Good Anthropocene', *Victorian Studies* Vol. 60, No. 4 (2018) p. 589; Readman *Storied Ground*, p. 206.

values, and a yearning for rural society. Wiener argued that a more thorough re-evaluation of the industrial age had begun in the 1880s, with economic historian Arnold Toynbee's 1884 *Lectures on the Industrial Revolution of the 18th Century in England*. In his work, Toynbee declared that an obsession with production and free competition 'had produce[d] wealth without producing well-being.'[89] This view persisted into the following century. The *Labourer* trilogy, produced during 1911-19 by politically radical historians Lawrence and Barbara Hammond, further formed the public's image of the industrial revolution and its impact on workers' lives as one of a reckless pace of change, driven by reverence for wealth and productivity, values inherently subversive to human happiness and which had resulted in the loss of natural ways of life.[90]

The Cult of Rurality

This increasing aversion to industrialisation aided the invocation of a long-lasting wave of rustic nostalgia, an impact which was felt by the Princetown branch both before and after closure. When in May 1955 the intention to close the line had recently been announced, an internal Parks Commission letter to Harold Abrahams noted that 'the closure of this branch line raises the possibility of the track being acquired as a public path.'[91] This was not the first time the repurposing of the moor's railways had been attempted, a suggestion having been put forward in 1944 to convert the southern section of the abandoned Plymouth & Dartmoor line from Plym Bridge to Yelverton into a cycle route.[92] Interest in footpaths had started to rise around the time of the railway's opening. The National Footpaths Preservation Society had been founded in 1884, before subsequently merging with the Commons Preservation Society.[93] In addition to the new appreciation for common land, the spaciousness provided

[89] Wiener, *English Culture* p. 83.
[90] Ibid. p. 85.
[91] TNA: COU 1/476 Letter to Mr Abrahams, 11 May 1955.
[92] *Western Morning News*, 2 May 1944, p. 6.
[93] Readman, *Storied Ground*, p. 125.

by landscapes previously considered barren was, by the turn of the twentieth century, also endowed with a new sense of positivity. G. M. Trevelyan advocated rambling across open country as a means of benefiting from the sense of freedom such environments provided.[94] Social reformer Octavia Hill also saw footpaths as the key to unlocking the recreational value of common land, and benefiting from the 'wild beaty' of untamed nature.[95]

Their cause was aided by the raft of country literature which emerged during the later years of the nineteenth century, and which was avidly consumed by city dwellers seeking a means of escapism from urban life. Promoting rural life as the very foundation of England, writers such as Ford Madox Ford, in his exploration of contemporary English character in *The Heart of the Country* (1906), weighed the old peasant folk consciousness against the commercially driven industrial consciousness with which it was being supplanted.[96] This was a theme also taken up by William Crossing in his 1903 series 'Present Day Life on Dartmoor', in which the previous century's improvers were characterised as an earlier, almost primitive people, incapable of understanding Dartmoor, and contrasting sharply with the locals, who were seen to inhibit an almost timeless quality. This aversion to modernity manifested itself in attitudes towards the railway. In Crossing's view, using the railway to access Princetown denied the traveller the ability to truly understand the moor, 'yet we venture to believe that when they begin to learn what the moor really is, a few at least would prefer to have made the journey thither by road rather than that one of its beauties should have been destroyed.'[97] The increased value placed on natural environments during times of industrial and urban growth was not, however, simply a reaction against industrial changes, but also served as a means of reassuring the continuance of national identity during times of uncertainty.[98]

[94] Ibid. p. 54.
[95] Readman, 'Octavia Hill and the English Landscape', pp. 165,167.
[96] Wiener, *English Culture* p. 62.
[97] Crossing, *Dartmoor Worker*, p. 127.
[98] Readman *Storied Ground*, p. 44.

The unchanging nature of natural landscapes gained a new significance throughout the 1870s-80s, as the newly emerging elite sought to place emphasis on continuity over change, and preservation over innovation, as a means of keeping social tensions in check. Imperial anxieties after 1900 led to a further need to reaffirm the nation's moral character, the true home of which was seen as residing in rural life.[99] The breed of preservation promoted by Collier has been interpreted as an extension of this social control by upper-middle-class reformers, who, concerned over increasing democratisation and the growth of organised labour instilled 'authoritarian paternalism'.[100] While Paul Readman has questioned this view, it was nonetheless evident during construction of the Princetown Railway, which became an unwitting pawn as first its anticipated success, and then subsequent commercial failure saw it played off for political ends. Shortly after the line's opening, a correspondent in the *Western Morning News*, critical of a faction within the Dartmoor Preservation Association which had tried to resist the railway, decried that 'it was the extremist Tory doctrine to try to keep the public away from the most healthful parts of Devonshire's sanatorium'.[101] Two years later, following a meeting of the Devonshire Association in which Collier had proclaimed the Duchy's obligation to conserve the moor, the *Western Morning News* once again contended that Collier's 'ultra-Conservatism' conflicted with the true function of the moor's landscape. Dartmoor, it was argued, needed to be preserved 'not from the people but for the people.' It was the writer's view that 'the greatest happiness of the greatest number is the end to be kept in view', and the railway, which had 'not been followed by those pessimistic predictions with which it was sought to deter its promotors', provided the means for achieving this aim.[102]

After the First World War this fascination with old country life, in both its real and imagined forms, spread throughout the middle class. Catherine Brace has shown how between the

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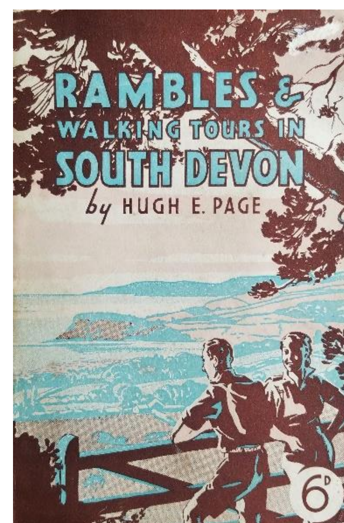
[99] Wiener, *English Culture* p. 44, 56.
[100] Readman, 'Octavia Hill and the English Landscape', p. 173.
[101] *Western Morning News*, 27 October 1885, p. 4.
[102] Ibid. 28 July 1887, p. 4.

two wars ‘a range of cultural products - travel books, landscape art, popular treatises on rural life, academic studies - contributed to the creation of a ruralist discourse… each stressing the integrity of rural life and landscapes’’.[103] The GWR attempted to tap into this market. The 1915 edition of Beatrix Cresswell’s *Dartmoor and its Surroundings* saw the GWR advertise itself as ‘the nation’s highway to Dartmoor – the fairyland of the west’. The GWR, in addition to promoting Princetown as a destination, also advertised its own motor car tours across Dartmoor, starting from Yelverton.[104] Despite the timing of this advert, the First World War largely halted the growth of civilian motor transport, through the necessity of prioritising fuel and resources for the military. Following the end of the war there was a rapid growth in the number of road vehicles in Britain, the total almost trebling in the three years between 1919-22 alone, while a tenfold increase occurred over the two decades from 1919 to 1939.[105] The return to peace consequently witnessed a resurgence in tourism on Dartmoor, but with the GWR now finding itself faced with new competition as road excursions became increasingly popular. A regular frequenter of the moor was Grey Cars of Newton Abbot, who, with their ‘Grey Torpedo Car’ were able to open ‘to view many remote scenes of picturesque interest. Many visitors from our crowded towns have found great pleasure in this delightful tour, and have accorded it unqualified praise.’ Grey’s tour consisted of a circular journey, ‘specially planned in order to convey the tourist to most of the salient points of interest on Dartmoor, embracing an infinite variety of attractive scenes.’ Included in the trip was the opportunity to pause ‘at the gateway of the famous Prison’.[106] The success of these ventures was not without its problems, however, as became evident on the eastern edge of the moor. In his 1925 work *Devon*, V. C. Clinton-Baddeley described Haytor as ‘the Mecca of char-à-bancs’,

[103] Brace, ‘Finding England Everywhere’, p. 92.
[104] Le Messurier, ‘Recreation,’ p. 240.
[105] Barker and Savage, *An Economic History*, p. 160.
[106] Peter Mason, ‘‘By Wagonette and Charabanc’ – An Introduction to Tourism on Dartmoor in the 1920s’, *Devon History News,* 26 (2020) p. 20.

while in the GWR's own 1929 publication *Glorious Devon*, Princetown's former industrial competitor was described as being 'black with people'.[107]

Faced with the popularity of road competition, the GWR sought to capitalise on the public's interest in rambling. In 1932 the company published *Rambles & Walking Tours in South Devon*, subsequent editions being printed in 1939, 1949 and 1951. Written by Hugh E. Page, the guide eschewed brash promotion of the GWR, and instead provided the reader with a series of walks, detailed descriptions being accompanied by a map of the route, which included the GWR station from which the walk originated. The company also issued corresponding day and weekend 'walking tour' tickets. In his opening remarks, Page subtly dissuaded his readers from exploring Devon by motor car. Rather than using blatant rail versus road imagery, Page instead invoked the desire to preserve rural culture, explaining that to explore Devon by road would not only cause the traveller to miss seeing the 'real' Devon, but would 'likely to mean the loss to a large extent of that most valuable heritage – our footpaths, as many of our paths are already showing signs of becoming choked by bracken and brambles through lack of regular use.'[108] Brambles were not the only hazard for the Dartmoor rambler. The GWR passenger halt at Ingra Tor was provided with a unique notice warning visitors that 'in the interests of game preservation and for their own protection against snakes, dogs should be kept on a lead.'[109] The passenger halts which the GWR provided for walkers along the route would become just as synonymous with the railway as the prison. Their closure in 1956 symbolised the casting aside of traditional values in the face of hard-nosed business, a press report shortly before closure announcing that 'the little wooden halts at Burrator, Ingra Tor and King Tor will be dismantled, the naked, scarred track, winding its way across the



1939 edition.
Author's collection

[107] Ibid. p. 26.
[108] Hugh E. Page, *Rambles & Walking Tours in South Devon*, (London: Great Western Railway, 1939) p. 7.
[109] Le Messurier, 'Recreation,' p. 239.

Moor, will remain for a time as a memorial of a public service which lasted 73 years, and was killed by economics.'[110]

Timeless Dartmoor

The increased value placed on the association between landscape and the past provided a key element in the move for landscape preservation.[111] But which past were the preservationists trying to evoke? The framing of human alterations to the moor as 'disfigurements' was already in evidence at the time of the Princetown Railway's construction. Notwithstanding the railway, which was itself 'a moral and physical disfigurement of Dartmoor', a critic of 1878 had bemoaned that 'many of the most picturesque parts of the moor are disfigured by walls enclosing large tracts of land.' Reflecting the new public reverence for common land, the author decried the 'completely futile' attempts at cultivation, the legacy of which had been the walls, which 'remain as memorials of the attempts, and as a lasting inconvenience and disfigurement.'[112] As early as 1894, in hopeful anticipation of the moor being purchased by Devon County Council, Collier had declared 'it will be necessary carefully to define the enclosures and buildings which are to be allowed to remain after the existing leases have fallen in.' While Collier foresaw some remaining, 'the chief object in view must be the preservation of the Forest as a forest… and as free pasture for cattle, sheep, and above all ponies'.[113] References to Dartmoor's 'primeval' character have long abounded in literature. This aesthetic initially saw Collier opposed towards the preservation of any historic human presence on the moor, despite his insistence on the preservation of common rights. By the 1890s however, his attitude had softened to such a degree that Collier argued for the introduction of restrictions on the taking

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[110] Brewer, *The Railways, Quarries and Cottages,* p. 25.
[111] Readman, *Storied Ground*, p. 19.
[112] *Tavistock Gazette*, 8 November 1878, p. 5.
[113] William Frederick Collier, 'Dartmoor for Devonshire', *Reports and Transactions of the Devonshire Association*, Vol. 26 (1894) p. 206.

of stones from prehistoric sites, with the assertion that an Act of Parliament would 'especially provide for their preservation'.[114] Collier's new-found concern for pre-industrial artefacts reflected the late-nineteenth century preservationist aim of recreating human-nature harmonies which were believed to have been achieved in the past, but which were felt unable to be replicated through modern innovations.[115] This view was echoed during the 1940s proposals for National Parks, which often shared a common value of being cultural landscapes, in which the survival of pre-industrial human activity was a feature to be celebrated.[116] This emphasis on the pre-industrial, and corresponding indifference to later human activity, was not just a legacy of the rurality cult of the previous half-century. Post-war ideas of reconstruction were intrinsically linked to debates over what shape society should form, being set against concerns over the avoidance of pre-war inequality, as well as a heightened awareness of the link between architecture and the values of society.[117] Furthermore, following the Conservative return to government in 1951, both the party and establishment sought to invoke a sense of identity which legitimized their holding of power. With historic privilege forming the basis of their authority, the celebration of the past gained a new political significance; the Conservative's 1951 manifesto *Britain Strong and Free* stressed the party's role as safeguarding 'our traditional way of life'. In emphasising the retention of traditional values while concurrently embracing modernity, the Conservatives fostered the idea that the worst aspects of the Victorian past had been cast aside.[118]

1951 saw the designation of Dartmoor as a National Park. One of the last Acts passed by Clement Attlee's Labour administration, it followed in the wake of the 1949 National Parks and Access to the Countryside Act. The new parks were part of a broader raft of post-war

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[114] Collier, 'The Purchase of Dartmoor', p. 207.
[115] Winter, *Secure from Rash Assault*, p. 33.
[116] Kelly, *Quartz and Feldspar*, p. 220.
[117] Nicholas Bullock, 'Valuing the Past, Seizing the Future Towards an Architecture of Reconstruction', in Nicholas Bullock and Luc Verpoest *Living with History, 1914-1964: Rebuilding Europe after the First and Second World Wars and the Role of Heritage Preservation* (Leuven: Leuven University Press, 2021) p. 350.
[118] David Sables, 'Industry, Heritage, the Media, and the Formation of a British National Cultural Memory', *International Journal of Historical Archaeology,* Vol. 21, No. 4 (2017) p. 982.

reconstruction legislation, providing regulated spaces for a 'landscaped social-democratic citizenship.'[119] Previously unregulated rural spaces such as Dartmoor would now become controlled for the benefit of the nation. Over the previous decades, the knowledge formulated by the preservation lobbies had led the government to consider the introduction of national parks. The inter-war politics of public access, and new leisure cultures associated with the countryside and open-air, saw increasing pressure for state intervention to protect what was now considered as the national interest. The right to roam and protection of common rights chimed with liberal-socialist values. The 1949 Act had involved three government reports, each instigated by Labour ministers. The 1931 Addison report determined the form such parks should take, the Dower report of 1945 identified specific sites, and the 1947 Hobhouse report defined the structure for implementation and governance. Of the various sites identified as being suitable for national parks, a recurring theme was wilderness.[120]

The National Parks Act set out a key objective as 'the preservation of the natural beauty of an area'; however the term 'natural beauty' was not without its problems. In their study of the phrase, Paul Selman and Carys Swanwick observed that 'whilst the early legislators presumably felt its meaning to be self-evident, in practice it contains many latent tensions, not least that of deciding the point at which a landscape, however attractive, ceases to be 'natural' by virtue of the intensity of human settlement and land use.'[121] The late-nineteenth century preservationists regularly wrote of the need to preserve 'amenity'. During the inter-war debate on the creation of national parks, 'amenity' arose as a central concept. The influential Addison report defined amenity as embodying the needs of the general public through the preservation of natural beauty.[122] Following the creation of the National Park, the Dartmoor committee placed particular emphasis on the 'amenity' value of the landscape, in which preserving not only natural beauty but also the character of the area brought renewed

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[119] Matless, *Landscape and Englishness*, p. 338.
[120] Kelly, *Quartz and Feldspar*, pp. 218-232.
[121] Paul Selman and Carys Swanwick, 'On the Meaning of Natural Beauty in Landscape Legislation', *Landscape Research* Vol. 35, 1 (2010) p. 13.
[122] Kelly, *Quartz and Feldspar*, p. 220.

attention to the question of eyesores. The aspiration held decades earlier by Collier to cleanse the moor of recent human structures became formally established with the creation of the Disfigurements committee, a sub-committee of the Dartmoor committee. With the formation of the sub-committee, structures associated with industrialisation, or which did not fit the Dartmoor aesthetic, became targeted for removal; discussions over the future of Princetown station following closure saw the Disfigurements committee announce that 'the station was of no use to the committee, who are only concerned with the amenities', while the nearby iron girder bridge was also singled out, having similarly 'spoilt the amenities'.[123]

Through these changes the park authorities sought not the staunch recreation of a pre-industrial aesthetic, but the invocation of a pre-industrial spirit. When it came to new construction in the park, Lord Strang, chairman of the Parks Commission advised 'if… we want to understand the secret of the old Dartmoor builders' success, we must look back much further than the immediate past'. However, Strang did not simply advocate the slavish copying of existing designs, declaring instead that 'National Parks are not to be museum pieces'.[124] Consequently the question of materials and architecture suitable for the moorscape was a significant preoccupation of the Dartmoor committee, which tried to influence future development on the moor by producing a guide for new building work in the park. Published in 1955, *Dartmoor: Building in the National Park* sought to aid the creation of properties which respected local traditions, were in harmony with their surroundings, and which would be 'inspired by and contribute to the individual character of the region.'[125] Roughcast concrete blocks were a permissible alternative to granite, however blocks which were very smooth or 'highly rusticated' were to be avoided, while rendering with pebble dash, with its 'flimsy' suburban appearance, was something which 'should never be used in the National Park.' The Dartmoor committee also supplied a colour chart of suitable colours

[123] TNA: COU 1/476 DNP (Landscape Disfigurements) Sub-Committee, 19 January 1960.
[124] Devon County Council, *Dartmoor: Building in the National Park* (London: Architectural Press, 1955) pp. 8, 14.
[125] Ibid. p. 7.

for building use, including ‘Granite’, ‘Old Granite’ and ‘Trowlsworthy Granite’.[126] Despite the acceptance of roughcast concrete for new construction, the closure of the railway demonstrated how decision making was primarily influenced by a preindustrial ethos, with existing structures being subject to a different, unwritten set of rules. During demolition of the railway consideration was given to the reuse of salvaged materials on other parts of the moor, Plymouth City Council having announced their intention to recover the concrete-post and wire fencing which bordered the trackbed and reemploy it to protect Devonport leat against cattle. The Dartmoor committee tried to dissuade the council from fencing the leat altogether, and when this failed, attempted to persuade them to use galvanised metal fencing instead, to no avail.[127] In reusing the railway fencing, the council had argued to the Disfigurements committee that ‘the material to be obtained from the disused railway track has been on the moor for such a long time that it would not harm the view if erected elsewhere.’[128] For the Dartmoor committee however, establishing material appropriateness was a more complex issue than simply length of presence on the moor. Whether a structure was in harmony with the landscape was determined as much by its original purpose as it was by the details of its construction. With the landscape’s amenity value born out of its rural associations, structures which had attempted to utilise the moor for non-rural purposes were inherently incompatible with National Park values, regardless of whether they fitted with Dartmoor aesthetics. The concrete posts were unacceptable, not because they were concrete, but due to their association with the railway.

At Princetown, the committee was faced with an entire settlement at odds with their concept of amenity. The incongruity of the town was such that during discussions in 1961 over retrospective grant funding for the recent demolition of the station, members of the Parks Commission felt ‘it might be difficult at this stage to assess whether an expenditure of £700

[126] Ibid. pp. 40-44, 66-67.
[127] TNA: COU 1/476 Summary of Correspondence between BTC and the clerk of Devon County Council May 1956 – May 1958, 9 June 1958: Conversation between Harris and A. J. Taylor, 6 December 1957.
[128] TNA: COU 1/476 DNP (Landscape Disfigurements) Sub-Committee 26 March 1958.

to clear what some people might regard as a small eyesore in the midst of a big one (Princetown itself) is really justified.'[129] The settlement had long sat awkwardly amongst popular ideas of rurality. During the debate over construction of a new railway in the 1870s, Princetown had been proclaimed by one critic as 'a place distinguished by being the one ugly spot in a beautiful tract of land', while in 1911, a fictionalised railway journey to the prison characterised the town by the domination of grey, with an 'ugly square tower of a granite church' being passed before finally arriving at 'the black heart of Princetown'.[130] Such was the association of the prison, that in 1877 the incentive for building the railway was claimed to have been nulled following the closing of the site to visitors, a spectacle which had previously been 'one of the main attractions to Princetown'.[131] With the negative connotations cast by the prison, the cultural rehabilitation of the moor during the late nineteenth century saw writers attempt to disassociate the settlement from the surrounding landscape. In the mid-1880s a columnist for the *Devon Evening Express*, in their 'Devon Sketches' series, exhorted readers of the correct way to explore Dartmoor. The potential visitor was warned 'Don't go to Princetown, and then fancy… that you are in the 'heart of the moor.' Take the Princetown railway instead if you like, and are pressed for time. It is a charming ride, and one you won't regret in a hurry; but then make Princetown simply a starting point and not a goal. …The associations of the place are bad.'[132] That a prison could become one of the sights of the moor, which people flocked to 'for the purpose of gazing at a lot of miserable convicts at work in a prison farm' was in the author's view 'one of the saddest tokens of the vulgar depravity of our holiday human nature.'[133] The arrival of the railway did not herald an improvement in perceptions of the area. In Crossing's view, connecting Princetown to the wider world had resulted in the settlement gaining a character

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[129] TNA: COU 1/476 P.W. Marshall to Helen Douglas, 28 February 1961.
[130] *Tavistock Gazette*, 8 November 1878, p. 5; *Longford Journal*, 21 October 1911, p. 7.
[131] *Tavistock Gazette*, 21 December 1877 p.5.
[132] *Devon Evening Express*, 14 May 1884, p. 1.
[133] Ibid.

more in keeping with the towns and villages of the surrounding country, than of Dartmoor itself.[134]

The framing of Princetown as a rogue settlement within the wider landscape, on account of its social and material values, was not a concept new to Crossing's time. As early as 1797 the gentlemanly tourist William Gell had complained of buildings in the Lake District which were not in harmony with the pictorial value of the landscape, while others, such as historian John Robinson in the early nineteenth century, felt that attempts to introduce features which were intended to make the Lakes landscape more attractive to tourists simply cheapened and vulgarised it.[135] The specific emphasis on regional cohesion and authenticity as key attributes to landscape identity became more pronounced towards the end of the nineteenth century. The celebration of regional character and local identity, and through it the notion of 'finding England everywhere', was a key element in the construction of national identity, particularly during the inter-war years. Chapter One has shown how questions of material originality influenced the moor's granite industry during its later years.[136] Writing in the magazine *Gloucestershire Countryside* (1931) concerning developments in the Cotswolds, Harold Tew expressed wider concerns that 'materials from all parts of the country became available in districts to which they were formerly alien, so that the traditional styles of building, which arose through the enforced use of local materials, were no longer followed.'[137] Ruralist writer H. J. Massingham also expressed concern that the introduction of inappropriate building styles caused disruption to regional identity, believing that the geology, soil and vegetation of a region shaped its architecture and craft-base, 'the human contribution is an integral part of the landscape as is that of its flora and fauna.'[138]

In the newly formed National Park, the question of appropriate architectural style was brought sharply into relief by a proposal from the BBC in 1951 to erect a television mast at

[134] Crossing, *Dartmoor Worker*, p. 156.
[135] Readman, *Storied Ground*, p. 103-104.
[136] Brace, 'Finding England Everywhere', p. 102.
[137] Ibid. p. 105.
[138] Ibid. p. 104.

North Hessary Tor, a mile to the northwest of Princetown. A chief opponent of the proposal was the Dartmoor Preservation Association, which argued against the mast's construction on the grounds of the clash between its distinct twentieth century associations and the timelessness of the moor.[139] Despite the objections, construction of the mast was approved by the Dartmoor committee in January 1954, albeit with the stipulation that the buildings should be constructed from granite, the recently demolished Red Cottages at Foggintor subsequently providing the stone by which the building under the mast was clad.[140] Notwithstanding this concession to aesthetics, the sanctioning of the mast's construction was met with strong disapproval by the Dartmoor Preservation Association, who felt the mast signalled a step towards 'a barren and characterless municipal recreation-ground, complete with all the appropriate notices, paths and car parks'.[141] This episode highlighted the fractious relationship between the various bodies interested in the moor. Even after the designation of Dartmoor as a National Park, Sylvia Sayer, chairman of the DPA, cautioned that the 'voluntary preservation societies must not relax their vigilance.'[142] With the Dartmoor committee subordinate to the County Planning Committee, it was Sayer's worry that the Dartmoor committee would be liable to be blocked by those who 'know little about Dartmoor', while the Council for the Preservation of Rural England feared that the County Council would not appreciate the national purpose of the park.[143] Sayer's concern had been affirmed when the Dartmoor committee narrowly voted in favour of the mast, a result which Sayer noted as being reliant on the absence of several anti-mast members of the committee.[144] With the announcement of the branch line's closure, and with the defeat over the television mast a recent memory, the opportunity to remove all trace of the railway could have become a contentious issue between the Dartmoor committee and the Preservation Association. However, in contrast to its stance over the television mast, the committee adopted a very

[139] Kelly, *Quartz and Feldspar*, p. 234.
[140] Ibid. p. 241; TNA: COU 1/490 Norman Mallett, proof of evidence for Four Winds enquiry, June 1963.
[141] Kelly, *Quartz and Feldspar*, p. 241.
[142] Le Messurier, 'Recreation,' p. 241.
[143] Kelly, *Quartz and Feldspar*, 231.
[144] Ibid. p. 236.

proactive approach to returning former railway areas to moorland.

The television mast seen from near Ingra Tor, with the trackbed of the railway in the foreground.
Author

Removing the Railway

Princetown station
Author's collection

Rendered in cement, Princetown station presented an austere appearance. Despite this it featured the long, low roofline valued by the National Park Committee as a Dartmoor characteristic, through its evocation of the long contour-lines of the Dartmoor uplands, while the station's prominent stone chimney stacks and use of slate roofing also chimed with the Dartmoor committee's recommendations.[145] However its indelible association with the railway made the building a target for removal by the committee, who, 'concerned with the preservation of the amenities of the area', initially approached the British Transport Commission in May 1956 to request the station buildings at Princetown and Dousland be demolished, so that 'the landscape be restored as far as possible to its natural state.'[146] The Transport Commission were slow to act on these concerns. Devon County Council wrote to the BTC the following June that 'it has been reported recently that the stations, particularly the one at Princetown, are becoming very derelict, windows having been broken and the engine shed having been partly demolished, and the Dartmoor National Park Committee would, I know, greatly appreciate it if the buildings and plant could be removed altogether as

[145] Devon County Council, *Dartmoor: Building in the National Park*, pp. 22, 27, 46.
[146] TNA: COU 1/476 Summary of Correspondence between BTC and the clerk of Devon County Council May 1956 – May 1958, 9 June 1958: Dartmoor Committee to BTC, 30 May 1956.

soon as possible in the interests of amenity.'[147] Despite the BTC proposing to convene a meeting of all the parties interested in the abandoned line, after several months of silence the committee became anxious. In a December meeting with Mr Harris of Devon County Council, A. J. Taylor of the Western Region Estates Office admitted that finding a buyer for the station buildings was problematic, as the BTC wished for the disposal to include the station yards. Harris reported back to the Council that if no buyer was found, the buildings would be left derelict and the BTC 'would probably welcome an offer from the Dartmoor National Park Committee to have them demolished at the Committee's expense.'[148] Three months later, having given 'a great deal of thought' to alternative uses for the buildings, the committee reasserted to the BTC that 'it would be in the best public interest' for the buildings to be demolished, the committee being 'unable to think of any new use of the buildings for which they would be willing to grant planning permission.'[149]

In view of this pedestrian progress, the announcement a few days later that Dousland station had been sold 'came as something of a shock' to the committee, who felt they had 'been let down by the Transport Commission.' Disgruntled at not having been consulted about the sale, the Dartmoor committee considered the intervention of Tavistock MP Sir Henry Studholme, while also passing the issue over to the National Park Commission in the hope that they might be able to restrain the BTC from completing the sale. Attempting to gain leverage, the committee provided the Commission with a summary of their correspondence with the BTC, confident that the Commission 'will see that the Transport Commission are reluctant to spend any money on the demolition of the buildings.'[150] On reaching the Parks Commission, however, N.H. Calvert noted to Harold Abrahams, 'I cannot help thinking that

[147] TNA: COU 1/476 Summary of Correspondence between BTC and the clerk of Devon County Council May 1956 – May 1958, 9 June 1958: Clerk to District Engineer, 7 June 1957.
[148] TNA: COU 1/476 Summary of Correspondence between BTC and the clerk of Devon County Council May 1956 – May 1958, 9 June 1958: Conversation between Harris and A. J. Taylor, 6 December 1957.
[149] TNA: COU 1/476 DNP (Landscape Disfigurements) Sub-Committee 26 March 1958; TNA: COU 1/476 Summary of Correspondence between BTC and the clerk of Devon County Council May 1956 – May 1958, 9 June 1958: Clerk to Estate and Rating Surveyor, 24 March 1958.
[150] TNA: COU 1/476 Dartmoor Committee to National Parks Commission, 1 April 1958.

while demolition might be desired on aesthetic grounds we cannot really grumble if the buildings are put to some useful purpose.'[151] The BTC did not consider the demolition to be of sufficient merit to justify the costs involved, and were endeavouring to sell the station site to the adjoining farm. Relating this to Abrahams, H. Bramwell of Devon County Council urged caution over the matter of Dousland, as 'any awkward publicity at this stage might mean that that this contract would fall through, and if that were so then the buildings would probably be left derelict with the Transport Commission taking very little further interest in them.'[152] Despite Bramwell urging the Parks Commission to impress on the Dartmoor committee the need to show restraint, ten days later the Disfigurements committee, attended by only Lord Roborough, Mr Straughen and chairman Sir Henry Slesser, resolved to ask Studholme to press the Minister of Transport for the demolition of the buildings.[153] The Disfigurements committee, unsatisfied that purchase by a local farmer would prevent the buildings becoming unsightly, protested to Studholme that 'the Transport Commission have broken faith by negotiating a sale without first approaching the Committee', and bemoaned their inability, as a local planning authority, to secure 'what in their view is best in the public interests'.[154]

The committee's plan backfired when Studholme, rather than approaching the Minister of Transport, instead contacted the Ministry of Housing and Local Government, who in turn sought the Parks Commission's opinion over whether the buildings were indeed such an eyesore that demolition was preferable to their reuse in agriculture.[155] On the evidence of Parks Commissioner Pauline Dower and field officer Mr Watkins, both of whom made site visits during the summer, the Parks Commission determined that demolition of Dousland station was unnecessary, and with the Ministry of Housing acceding to this view and

[151] TNA: COU 1/476 Note from N.H. Calvert to Harold Abrahams, 10 April 1958.
[152] TNA: COU 1/476 H. Bramwell to Harold Abrahams, 12 May 1958.
[153] TNA: COU 1/476 DNP (Landscape Disfigurements) Sub-Committee 22 May 1958; H. Bramwell to Harold Abrahams, 9 June 1958; Internal NPC note, 17 March 1959.
[154] TNA: COU 1/476 H.G. Godsall to Sir Henry Studholme, 9 June 1958.
[155] TNA: COU 1/476 M. Ward to N.H Calvert, 14 July 1958.

unwilling to involve the Minister of Transport, the Dartmoor committee resigned itself to the stalemate and resolved to seek no further action over the station's demolition.[156] The Disfigurements committee, however, objected to being circumvented in this manner, and resolved to protest to the Parks Commission over their failure to support or even consult the committee in the aftermath of their site visit. The BTC was also earmarked for criticism over its 'refusal to be more cooperative' on the clearing of the sites; they were to be informed that 'the committee propose to give the matter a great deal of publicity in the Press if better cooperation is still not forthcoming.'[157] The Parks Commission, in replying to the committee's protest, asserted that while they wished to cooperate over the mitigation of eyesores, 'it does not follow that the Commission could agree to the demolition of substantial buildings which, although no longer in use for railway purposes may have a sale or letting value.'[158] With the Dartmoor committee having focussed its attention on removing buildings directly associated with the railway, other structures with a less obvious connection were able to slip through the net. Of the three railway cottages which existed along the line, one was retained for use by a former railway employee, another sold to Plymouth Corporation, while the third was put on the open market, complete with a section of former trackbed as a garden.[159] It was also reported that the signal box at Princetown was let on a monthly lease as a motorbike garage.[160]

The question of Dousland was finally resolved in March 1959, when it was announced that the station had been purchased by Mr J. Merrill, proprietor of the adjoining Manor Hotel.[161] Merrill's work on renovating the hotel eased the minds of the committee, who had become even more concerned following vandalism of the station by local inhabitants.[162] In

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[156] Ibid; TNA: COU 1/476 Dartmoor Committee, 29 July and 16 September 1958.
[157] TNA: COU 1/476 DNP (Landscape Disfigurements) Sub-Committee 21 October 1958.
[158] TNA: COU 1/476 DNP (Landscape Disfigurements) Sub-Committee, 20 January 1959.
[159] TNA: COU 1/476 Summary of Correspondence between BTC and the clerk of Devon County Council May 1956 – May 1958, 9 June 1958. 6 December 1957
[160] TNA: COU 1/476 Note from N.H. Calvert, 14 April 1958.
[161] TNA: COU 1/476 DNP Planning Committee, 17 March 1959.
[162] TNA: COU 1/476 DNP Planning Committee, 21 July 1959.

September the Disfigurements committee decided that in view of 'the fence posts adjoining the station [having] been cut to a uniform height' and with the owner taking further steps to tidy the site, no further action was necessary.[163] The owner subsequently sought the views of the Dartmoor committee on converting the former station to a dwelling, the committee's minutes recording 'I think it would practicable to carry out a satisfactory conversion and would certainly be the most economic way of dealing with these premises', while the Disfigurements committee also approved of the suggestion.[164] With the sale of Dousland near completion, the Dartmoor committee's attention switched more decisively towards Princetown. The BTC had originally intended to sell the buildings to Mr Toop, a Yelverton builder who planned to demolish them and salvage as much as possible, but he subsequently 'dropped out of the picture.'[165] Realising that the matter of Princetown could potentially drag on indefinitely, Calvert advised Abrahams 'I think if somebody was prepared to take the buildings off BTC's hands, demolish them without cost to BTC the latter would be happy to hand them over for a song.' The Transport Commission's reluctance to commit any expenditure towards demolition was a constant barrier to progress, a situation not helped by the ambivalence of other organisations. Calvert related to Abrahams how the BTC had approached the military about removing the buildings; however in Calvert's words 'they want to blow them up and leave the BTC to meet the cost of compensation to third parties!'[166] In Calvert's view, the best way forwards was to approach the Prison Commission for labour in conjunction with an application for an Exchequer grant.

The suggestion of grant funding renewed the Dartmoor committee's determination to resolve the issue, but once again its drive to remove evidence of the railway saw it come into conflict with the Parks Commission. The cost of demolishing the buildings at Princetown had initially been estimated at around £150, Devon County Council getting an unofficial quote when it

[163] TNA: COU 1/476 DNP (Landscape Disfigurements) Sub-Committee, 15 September 1959.
[164] TNA: COU 1/476 DNP Planning Committee, 19 April 1960; TNA: COU 1/476 DNP (Landscape Disfigurements) Sub-Committee, 21 June 1960.
[165] TNA: COU 1/476 N.H. Calvert to Harold Abrahams, 9 January 1959.
[166] Ibid.

appeared that the Dartmoor committee would have to pay for the cost of clearance itself or concede to the buildings remaining.[167] The County Land Agent subsequently negotiated a purchase price of £100 for the station, with the committee approving a total expenditure of £300 for its acquisition and demolition.[168] Relaying this information to the Commission, H.G. Godsall, clerk to Devon County Council, successfully sought confirmation that the Commission might still grant-aid the project, but it transpired that the land had been earmarked for sale to Tavistock Rural Council for housing. With a fire station also mooted, both outcomes, falling outside of the scope of the 1949 Act, would impact the amount of grant money available.[169] A further unexpected issue arose when it was discovered that the BTC were under an obligation to maintain a stockproof fence around Princetown station.[170] As the Transport Commission was only willing to sell the station 'subject to onerous covenants with regard to fencing', none of the local authorities were willing to take on the land. Undeterred by the complications and buoyed by the apparent confirmation of the grant, the Dartmoor committee forged ahead with the demolition, resolving to remove the buildings at its own expense, while a separate agreement being reached with the BTC, who agreed to pay for the removal of the bridge ironwork. The BTC's uncharacteristic willingness to contribute towards the cost of demolition can be explained by the scrap value of the bridge, their involvement in the clearance stopping at the bridge abutments, which were left standing.[171]

In October 1960 the Disfigurements committee reported that the station buildings had been demolished by the Devon County Surveyor, with the bridge due to follow soon after.[172] Abrahams was only informed of the work the following February, when Godsall wrote to him

[167] TNA: COU 1/476 H.G. Godsall to Harold Abrahams, 6 January 1959.
[168] TNA: COU 1/476 DNP Planning Committee, 21 July 1959.
[169] TNA: COU 1/476 H.G. Godsall to Harold Abrahams, 21 August 1959; J. Ferguson to H.G. Godsall, 15 September 1959.
[170] TNA: COU 1/476 DNP Planning Committee, 15 December 1959.
[171] TNA: COU 1/476 H.G. Godsall to Harold Abrahams, 13 February 1961.
[172] TNA: COU 1/476 DNP (Landscape Disfigurements) Sub-Committee, October 1960.

of the developments, also disclosing that the bridge had similarly been removed.[173] These developments came as a surprise to the Commission, the committee having carried out the demolition without any further consultation. Furthermore, the final cost of £547 12s 4d was considerably more than the £300 originally quoted. Within the Commission, P. Marshall pondered to Helen Douglas 'I am not clear to what extent we have given the PPC [Park Planning Committee] reason to believe that we would support the clearance action'.[174] With a further £150 required to cover the demolition of the bridge abutments, the high cost of which was attributed to the remote location, Marshall questioned whether the total outlay of £700 was really justified given the surrounding vista of Princetown.[175] Field Officer Millar was dispatched to assess the situation on the ground, reporting back that site was 'well and truly cleared', the land presenting 'a surface of stone and rubble with grass breaking through, which is grazed by the Dartmoor ponies where they have been successful in finding a way through the boundary fence.'[176] Only one 'small box like structure' remained, which Millar erroneously believed to have been the signal box. The land remained in the ownership of the BTC, 'and since Princetown is now said to be a town without a future, they are unlikely to be able to dispose of it'. It was Millar's view that '£700 is perhaps not such a large figure when viewed against the sums being spent on caravan sites though these admittedly affect more open country', however with a 'considerable area of land' having been returned to moorland, 'and clearly so much to the good', Millar recommended the awarding of the grant.[177] The actions of the Dartmoor committee had wider repercussions for other National Parks, Marshall emphasising to Helen Douglas the need of 'gently reminding' the Park Planning Authorities 'of the desirability of consulting the Commission at an early stage on any grant earning projects'.[178]

[173] TNA: COU 1/476 H.G. Godsall to Harold Abrahams, 13 February 1961.
[174] TNA: COU 1/476 P.W. Marshall to Helen Douglas, 28 February 1961.
[175] Ibid.
[176] TNA: COU 1/476 Mr Millar to Helen Douglas, 29 March 1961.
[177] Ibid.
[178] TNA: COU 1/476 P. Marshall to Helen Douglas 28 February 1961.

With their objectives fulfilled, the committee's attentions moved away from the railway. When in April 1961 the BTC offered to sell the Princetown site to Devon County Council for use as a car park, the Dartmoor committee declined to support the move, citing that 'the real necessity for buying the land had passed', with their only remaining concern being the removal of 'unnecessary' fencing around the station site.[179] New developments at Dousland became their more immediate concern, after the area around the station had become subject to attention from developers, among them Body, Son & Fleury, who considered the area 'ripe for development.'[180] Their proposal for houses on an eight-acre site to the south and west of the Manor Hotel was twice rejected by the Dartmoor committee, its visibility from Roborough Down being one of their main concerns. Responding to these issues, Body, Son & Fleury demonstrated their intention to make use of the former railway embankment, which would screen the houses from the road. While Tavistock Rural District Council were in favour of the development, which they believed would improve the site of the disused Station, the Dartmoor committee felt further development should not be undertaken 'until provision has been made for shopping, educational and other facilities.'[181] The planned use of the railway embankment as a pseudo-natural feature to mask new development represents an ironic twist on the Dartmoor committee's attempts at industrial dissociation.

The demolition of the railway buildings occurred during a transitionary stage, in which industrial heritage came to have increasing value. No sooner had the last train run, then questions were raised as to whether the demolitions should go ahead, Mr Creber expressing his concern in the *Western Morning News* that 'what are now eyesores will become ancient monuments.'[182] The concept of 'industrial archaeology' first emerged in the UK during the 1950s; while the discipline was initially focussed on scientific interest, during the 1970s it

[179] TNA: COU 1/476 DNP Planning Committee, 25 July 1961.
[180] TNA: COU 1/476 Body, Son & Fleury to Tavistock Rural District Council, 28 June 1962.
[181] TNA: COU 1/476 DNP Planning Committee, 20 November 1962.
[182] TNA: COU 1/476 Cutting, *Western Morning News*, 6 March 1956.

came into the sight of both the National Trust and the government.[183] Writing in 1965, David Lowenthal and Hugh Prince felt that the 'omnivorous appetites of preservationists' had shown that 'appreciation of the past has little to do with esthetic [sic] judgment'. They saw that 'however disregarded before, a thing is no sooner threatened with extinction than strenuous efforts are made to save it.'[184] When in 1961 Dartmoor prison was being earmarked for potential demolition, the annual report of the Council for the Preservation of Rural England expressed hope that 'this grim relic will no longer dishonour the landscape', however a correspondent in *The Times* felt that 'if the Dartmoor we have known and loved is to be preserved,' then 'the prison must be preserved too. It is now part of Dartmoor's tradition, history, appeal, fascination and character.'[185]

The railway itself would later undergo its own degree of rehabilitation, the trackbed between Princetown and Ingra Tor forming part of an established walking route which has since become known as the 'Tyrwhitt Trail'. Further railway demolition would occur in 1964 near Dousland, when the bridge over the road at Peek Hill was removed during road widening, while in 1977 spoil from an extension to Dousland's water filtration plant was used to fill in the cutting between Peek Hill and Lowery Crossing.[186] In 2015, over half a century after it was demolished and nearly sixty years since the railway had closed, the bridge at Peek Hill was reinstated, linking the two sections of trackbed previously severed by the road. At a cost of £350,000, the new bridge formed part of the 'Granite and Gears' project to improve pedestrian and cyclist access on to Dartmoor, providing a continuous cycle trail from Princetown to the reservoir at Burrator.[187] Despite the efforts of the Dartmoor committee to

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[183] Felix van Veldhoven, 'Post-Industrial Coal-Mining Landscapes and the Evolution of Mining Memory', in Jan Kolen, Johannes Renes and Rita Hermans (eds.), *Landscape Biographies: Geographical, Historical and Archaeological Perspectives on the Production and Transmission of Landscapes* (Amsterdam: Amsterdam University Press, 2015) p. 336.

[184] Lowenthal, David and Hugh Prince, 'English Landscape Tastes', *Geographical Review*, Vol. 55, No. 2 (1965) p. 209.

[185] Ibid. p. 206.

[186] Kingdom, *The Yelverton to Princetown Railway*, pp. 101, 104.

[187] *Princetown Times Gazette*, 13 May 2015, available at https://www.tavistock-today.co.uk/news/bridge-boost-for-cycle-project-410069, accessed 29 October 2022.

eradicate all trace of the railway at Princetown, over half a century after the rest of the site was cleared the 'box like structure' noted by Field Officer Millar continues to stand its ground, having survived due to its proximity to the Pocket Power Station, opened in 1957 by the South West Electricity Board.[188] Formerly a GWR stable, today it remains as the only surviving GWR railway structure in Princetown. Built to house the carthorses that delivered goods around the town, it stands as a faint echo of the horses which once worked their way across the moor.

The stables surrounded by the mist of a Dartmoor morning.
Author

[188] TNA: COU 1/476 Mr Millar to Helen Douglas, 29 March 1961.

Conclusion

The railway cuts through the landscape, and its physical interaction with the surrounding terrain is plain to see. But this interaction also works in the opposite direction. Through the railway, the landscape brought people to Dartmoor, at first to extract granite, and later to view the moor as a spectacle. The story of the railway's impact on Dartmoor extends far beyond the methodology traditionally employed for railway histories. In looking at the railway to Princetown and the industry which surrounded it, this thesis has replicated the approach taken by Sara Pritchard in *Confluence*. In examining the post-1945 history of the Rhône, Pritchard demonstrated how various groups vied with each other as they sought to appropriate this large river valley for political, economic, and cultural aims. State officials, technological leaders, and ordinary citizens all served to connect technology and the environment with identity and state-building. At Princetown the railway and quarries, while on a much smaller scale, also represent an envirotechnical regime. It is a regime which goes through a lifecycle, incorporating a whole range of issues. Like the Rhône, it is bound up with economy and politics, culture and identity, and attitudes between nature and nation. The regime underwent an active dismantling after the Second World War, but today there are still traces left.

The regime reshaped the landscape, leaving permanent changes which are visible today. Without the railway the quarries would not have developed to the extent that they did. However, after an explosion of industrial development during the early-nineteenth century, there followed a very protracted decline. During this period the commercial value of the land became supplanted by its amenity value. The railway aided this transition. Over the course of its existence the railway was seen to both violate the land it traversed and facilitate its amenity by providing public access to it. Today, as the present-day visitor walks along the railway through this quarried landscape, it is not immediately obvious why these deep voids and large spoil tips were created. By drawing on a wide variety of disparate sources, from

company records, journal articles, newspaper reports, tourist guides, diaries, travel writing and professional and personal correspondence, it has been possible to put landscape history back into the railway. In doing so it has allowed us to understand the forces which shaped the Dartmoor landscape seen today. It also revaluates the industrialisation of this part of Dartmoor. The industrialisation of the moor is not a story of failure born out of naivety, but of a successful industry that lasted over a century.

The central element which drove the industrialisation of the Princetown area was granite. Due to its physical age as a geological material, and its use by ancient civilisations, granite has become imbued with a timeless quality. Granite, however, is not a passive material. By recognising this, this thesis has challenged the way an inert substance should be perceived. Understanding the background behind the ascension of granite has been made possible through studying the plethora of architectural journals which emerged during the nineteenth century. This research has shown how the use of granite was determined by changing technology, political developments and shifting cultural tastes. It has shown how, as the nineteenth century began, the development of extraction techniques made the stone more accessible and practicable for the building trade, while the Victorian interest in science and statistics enabled granite to legitimise its status as a premier building material. Contemporary advertisements have highlighted the early development of branding by the quarries, while the desire to capitalise on the name of Haytor, which had gained commercial value, led to industrial subterfuge. Later in the century, however, scientific understanding would undermine granite's status. The decline of the industry was framed by changing aesthetics, science, and modern materials, together with Britain's position as a global trader. Chemical degradation, induced by the industrial atmosphere, dented its reputation as a decorative element, while the development of modern materials also saw it supplanted as a stalwart of engineering. The growth of a transnational trade impacted this local industry, and once granite importations had gained a foothold in Britain, it became difficult for the domestic industry to regain the initiative. The stone's use in the roles of decoration and engineering

tell a much wider story and explain why Dartmoor became an important supplier to the nation.

Publications such as *The Builder* have revealed how the industry was able to survive by adapting to changing markets. During the lifecycle of the quarries, the qualities for which granite was valued changed. Initially granite was prized for its structural quality. The first half of the nineteenth century saw quarrying on the moor driven by the demands of dock construction and paving. Thomas Tyrwhitt, in promoting his railway, sought to capitalise on the legacy of the Napoleonic wars, which had prompted the creation of a breakwater at Plymouth. Intended to protect the Channel Fleet, the breakwater provided the quarries with their first major contract. In subsequent decades, British foreign policy continued the demand for engineering granite, as naval fortifications were constructed to protect against French invasion. Granite's hard-wearing quality also saw it drawn upon to facilitate street improvements, the development of paving and drainage being driven by the emergence of municipal authorities together with growing concern over public sanitation. However, with the rapid industrialisation of cities, air pollution, and the effects it had on hitherto reliable materials, was a new, and unexpected phenomenon.

Granite's status as an engineering material began to be supplanted from the middle of the century onwards in favour of its aesthetic quality. As architects sought to move away from the aesthetic values of the previous century, granite's distinctive colour and patination saw it chosen for ornamental use. The variations in colour found between different quarries, and the irregularity of the patination, played into the Victorian preoccupation with individuality, while its structural quality gained a new significance as a symbol of moral endurance. The desire to establish a national character for buildings provided a further boost to the moor's granite industry. The nineteenth century fixation with medievalism, with its appeal to imagination and emotion, saw the popularisation of Gothic architecture as the true 'English' style. This movement coincided with a need to provide religious provision for an expanding population. Consequently, not only were new churches constructed in a medieval style, but

existing historic churches underwent refurbishment which attempted to accentuate their Gothic features. This work provided a boost to both the local granite industry and regional architects. Ironically, the work of Harry Hems and others in altering the historic fabric of Medieval churches would lead to the emergence of the modern architectural conservation movement. This is an area which, within the sphere of Dartmoor, has been the subject of controversy in recent years, due to the perceived indifference with which historic buildings have been treated.

The last years of the moor's granite industry saw the stone's symbolic qualities become the main focal point, as the stone moved from being a physical asset to a cultural one. In the face of European imports, British granite gained a new cultural significance as an indigenous material, both on a national and regional level. The industry was also able to benefit from the increase in memorial building which began in the late-nineteenth century, and which saw a dramatic increase following the First World War. Granite memorials were used to both reinforce local identity, amid large internal migration, and commemorate war dead. In doing so they aided agendas of localism, amid wider concerns of centralisation. As part of this, greater emphasis was placed on the origin and authenticity of construction materials. In memorial crosses, the structural, aesthetic, and cultural properties of granite were all combined in one object.

Dartmoor's granite industry was the legacy of the early-nineteenth century ambition to increase productivity of the moor. The railway which Sir Thomas Tyrwhitt constructed was to be the key to enabling his planned improvement of the moor, but it failed to achieve its goal. The minutes of the company's meetings provide a detailed insight into the everyday trials and tribulations of constructing a line during the pioneering days of railway development. When viewed against the wider economic situation, the timing of Tyrwhitt's railway venture was clearly misplaced. Launched at a time of financial instability, the scheme was undersubscribed. The need for investors led to the company's exploitation by an experienced city firm, who sought to capitalise on the commodification of granite at the

expense of Tyrwhitt's original ambition. This also explains why the railway remained in a primitive state for a protracted period. As a pioneering railway, the lack of engineering expertise saw the construction suffer costly mistakes, while the failure to appreciate the value of land increased the financial pressure on the company. Additionally, the P&DR's position as an early railway was exacerbated by the lack of regulation, which left it incompatible with the rest of the emerging railway network. If the P&DR had been launched ten, or even five years later, it would have conformed more readily to the developing railway standards, and not remained technologically isolated for so long. Roger Osborne has defined the Industrial Revolution as 'the transition from an organic economy to an economy based on energy derived from fossil fuels.'[1] The activity on Dartmoor remained in a state of transition for a prolonged period, and the new line effectively became a private railway for the quarrying firm which had funded its completion.

The Plymouth and Dartmoor Railway was conceived as a genuine attempt to improve the prosperity of Princetown and develop the surrounding area. While most early railways were constructed to support an existing industry, the P&DR differed in that its construction was intended to facilitate the introduction of industries which either did not exist, or only existed in primitive form. However, the rebuilding of the line by the GWR in the 1880s was not driven by similarly altruistic aims. The new railway had a political status, with the GWR using it to block the encroachment of the London & South Western Railway on its territory, while the local landowner used it to strengthen his position amongst the recently expanded electorate. The Princetown Railway provides a textbook example of how large railway companies were prepared to construct wasteful lines to achieve regional monopolies and protect their territory from existing and future competition. The Princetown Railway company found itself burdened servicing the debt of the extra work required by the GWR. Local investors saw no return on their money, while the Princetown company were unable to bring about an improvement in service. With the LSWR having been blocked from further encroaching on

[1] Osborne, *Iron*, p. 345.

GWR territory, the latter company quickly lost interest in developing traffic on the line, a situation which remained unchanged until after the First World War. This situation informs us beyond simply railway history. Letters between the GWR and John Pethick reveal how the retreat of the local landowner from paternalism saw a local industrialist attempt to assume social leadership in the area.

Whereas the GWR's move to open the Princetown branch had been largely pre-emptive, the opening of additional new passenger halts during the 1920's was very much a reactionary move, confirming contemporary concerns over the conservatism of the railway companies that had resulted from their years of monopoly. The story of emerging road competition following the end of the First World War, and the railways' attempts curbing it, is well documented. However, it is generally told from the perspective of the railways themselves, with an emphasis on vehicle development. This research has shown that the GWR, in opening these halts, was utilising broader attitudes towards the countryside to fend off road competition. The publication of rambling guides aimed to generate passenger traffic by appealing to the outdoor culture of the interwar period. The change of the branch from a granite railway to a tourist one was therefore driven as much by cultural attitudes as it was by economics.

The post-war railway history is framed by the deep differences in economic and political policy between the two main political parties. Under Labour, the nationalised network was initially intended to be maintained at its existing size, with the profitable sections subsidising the less profitable ones. Following the 1951 election, the social role of railways became subjugated by commercial doctrine. The increase in road transport saw the profit margins of the branch become too narrow to be considered sustainable. The closure of the railway was used as an opportunity to remove some of the disfigurements of industrialisation, however the same financial belt-tightening which had seen the branch close also saw the British Transport Commission reluctant to spend any further money on removing the infrastructure. This reluctance to act impacted on the relationships between the bodies associated with the

National Park. The minutes of the park authorities vividly illustrate how the National Park suffered a democratic deficit, with the Park Committee being ultimately answerable to councillors.

Pressure for state intervention to protect the moor had emerged during the late-nineteenth century. The Devonshire Association *Transactions* have shown how, in the 1870s, the prospect of a new railway to Princetown became a focal point for the emerging preservationist movement. The debate over Dartmoor was not confined to the Devonshire Association, but spilled over into the local press, providing a wider view on contemporary attitudes towards Dartmoor and the new railway. Concern arose not only over the physical impact on the landscape, but also the implications of mass tourism, and the prospect of the prison attracting the wrong kind of tourist. Articles in the *Transactions* show that by the time of the railway's opening, W. F. Collier was already pushing the concept of Dartmoor as a primeval landscape. The new railway was constructed at a time when the impact of industrialisation on society was being reassessed, leading to a new appreciation for rurality.

This thesis has revealed the changing status of the moor as a landscape, in which the removal of railway structures was just one aspect of evolving attitudes. The attitudes towards Dartmoor reflected broader sensitivities. Over the course of the railway's lifespan, landscapes shifted from having a purely economic value, to one of cultural importance. Early-nineteenth century correspondence from William Courtney together with the minutes of the Plymouth & Dartmoor Railway have shown how the industrial activities on Dartmoor produced an unexpected side effect; they raised questions about the ownership and value of the land. Because the perceived value of Dartmoor had for so long been held as minimal, the area had continued to remain in a state of almost feudal existence. The nineteenth-century, however, witnessed a major revaluation of the Moor. With the land now seen to contain valuable commodities, questions of ownership gained a new prominence when it came to extracting such commodities for profit. Later in the century the value attributed to Dartmoor took on a new form, as a new respect emerged for dramatic landscapes. The

associations landscape held with the past and continuity played into contemporary sensitivities.

The moor's association with Englishness does not just inform our view on the railway's attempts at generating tourist traffic. The mid-nineteenth century onwards witnessed a preoccupation with finding the basis of Englishness. As rural England – as an agricultural entity – declined in economic and political importance, it took on a new cultural significance, increasingly seated at the heart of national identity. By framing the countryside as a moral landscape, attention became drawn to the physical structures which either upheld this morality or offended it. The writings of W. F. Collier have shown how the concept of landscape disfigurement had its origins during the late-Victorian period, while press accounts show that Princetown and its buildings were considered out of character with the rest of the moor. After the Second World War there was a heightened awareness of the link between architecture and societal values; the National Park sought buildings that were in harmony with the landscape, not just visually, but also in a cultural sense. New construction was not rejected outright but expected to conform to the park ethos. This debate about vernacular architecture did not concern Dartmoor alone but was part of a wider debate in the 1950s founded on post-war reconstruction.

The granite industry on Dartmoor was not expected to have a finite life, consequently the settlements which supported it should not be considered as being merely the temporary artefacts of a transient industry. Correspondence from the Lopes estate has helped chart the development of these communities, while popular travel writing has revealed attitudes towards the local population. The quarry owners took the initiative in providing accommodation for their workers, as evidenced by the progressive development in the housing provided. While the prison barracks were initially used, the demand for granite drove the development of proper housing at the quarry sites. With the first houses constructed from cob, a classic Devon building material, later construction used granite. The makeup of these communities shows them to have been ascribed a permanence equivalent to that of

Princetown, with the substantial nature of their construction, and the facilities provided, underpinning their status. A typical example is the provision of places of worship. One of the ingredients of a Victorian settled community was the chapel. The early provision of one at Foggintor, together with another at Merrivale symbolises the legitimacy with which these communities viewed themselves. The intention to replace Merrivale's corrugated iron chapel with a granite example demonstrates not only the intended permanence of this community, but also its independence from Princetown. The longevity with which families settled in these locations also attests to their permanence. If people spend their whole lives at Foggintor, can such a place be considered as temporary?

The people who resided in these communities played their own role in shaping perceptions of Dartmoor. For the landowner they could be an unruly force in need of containment, for the Dartmoor historian such as William Crossing, they raised questions over what constituted a true inhabitant of the moor. But on a broader level, the public's image of the quarry workers during the late-nineteenth and early-twentieth centuries was much more positive. The local population, evoking images of ancient Britons, were seen to affirm Dartmoor's status as a custodian of Englishness, while the seemingly feral children that visitors encountered symbolised the freedoms associated with the moor. These freedoms were associated with common land, and preserving common rights came to be viewed as a means of preserving broader liberties. Through the formalisation of their education, the children of the moor also reveal the advance of the state into everyday society. The records of Foggintor Mission School reveal national tensions over church-state relations in education provision, while the wider attitudes towards the moor's population reveal concerns over the impact of centralisation.

The story of the railway to Princetown is the story of national interest in a specific region. Sometimes this interest is economic, sometimes bureaucratic, and other times cultural. Tyrwhitt took a regional interest, aiming to incorporate the previously unproductive moor into the nation. The railway he created generated a more localised interest; the development of

Britain's railway network led to increasing government involvement as safety and financial security spread in the public consciousness. Whereas the Plymouth and Dartmoor Railway operated with virtual autonomy, the everyday operation of the Princetown Railway was of concern to Whitehall. The communities which the railway helped establish led to a focus of interest on the individual. The priority given to providing education shows how the children of the quarry communities were assimilated into the wider nation. With the formation of the National Park, a national interest became once more embodied on a regional level, the design and fate of particular buildings being determined by their impact on the moor as a whole. Granite too, generated its own interest. The moor's granite quarries are usually portrayed as a local industry. This thesis has shown however, that they had national implications. The development of company law in the mid-nineteenth century led to a flurry of businesses emerging. Company records have revealed the disparate backgrounds of investors, as city speculators sought to profit from the moor. The fate of the industry became of national concern after it emerged as a focal point amid wider concerns over foreign policy. Parliamentary debates questioned the morality of importing Norwegian granite during a depression in the nation's own industry, while the qualities of British and Norwegian workers were played off against each other. The issues which caused Dartmoor's granite industry to go into decline were not unique to the moor, or to the south-west in general, but affected Britain's granite industry on a national scale. At the beginning of the twentieth century William Crossing determined the improvement movement to have failed due to its lack of understanding of the moor's purpose. This thesis has demonstrated that the granite industry did not fail through any inherent fault in the landscape or its industrial infrastructure, but due to external events. The railway, a legacy of the improvers, enabled the settlement at Princetown to survive, until the arrival of the motor car.

This PhD shows how preservationists are responsible for writing history as much as formal historians, and aligns with the Tom Greeves' idea of the displacement of culture. On Dartmoor, many important buildings from the nineteenth and twentieth centuries have been

lost, either through targeted demolition or cultivated abandonment. By removing these buildings our understanding of the moor and its place in history is compromised. Over the course of the railway's history, Princetown was repeatedly the site of contested modernity. The term 'modernity' can be applied to preservation just as much as it can be applied to the industrial workings of the quarries. The post-war National Parks were designated as 'outside' the modern world, yet the countryside that urban dwellers inhabited was a modern abstraction itself. The vision of Dartmoor as a timeless neutral scene is one created by preservationists. A key problem with the way Dartmoor is viewed is that it is seen as a place for grazing animals, with all other industries considered as merely temporary. But if the granite quarries lasted for over a century, can they really be considered a failure? This view of industrial failure is one which is promoted by preservationists, who write about Dartmoor as if the moor's true purpose is as a place for sheep and other initiatives are scorned. This thesis has demonstrated the need to move away from reading Dartmoor as a place of failed speculation. To properly understand the story of Dartmoor's development it is essential to look at the local, regional and national demands which drove the formation of the industry, and which shaped its subsequent development. The fractious nature of the Park Authorities also highlights a bigger question over where responsibility should lie for decisions on landscape. Who is responsible for determining what should be removed? What qualifies a building as a disfigurement? Is it its physical condition, its architectural style, or its function? When focus is switched on to a more local scale, different perspectives are found on the value of buildings and landscape. This research has demonstrated how the Dartmoor landscape is the product of a whole array of decisions, and how the creation of heritage is complex, involving conflict, compromise, and loss.

Standing near the site of Swell Tor quarry, a Dartmoor pony looks down on to the trackbed of the Princetown Railway.
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