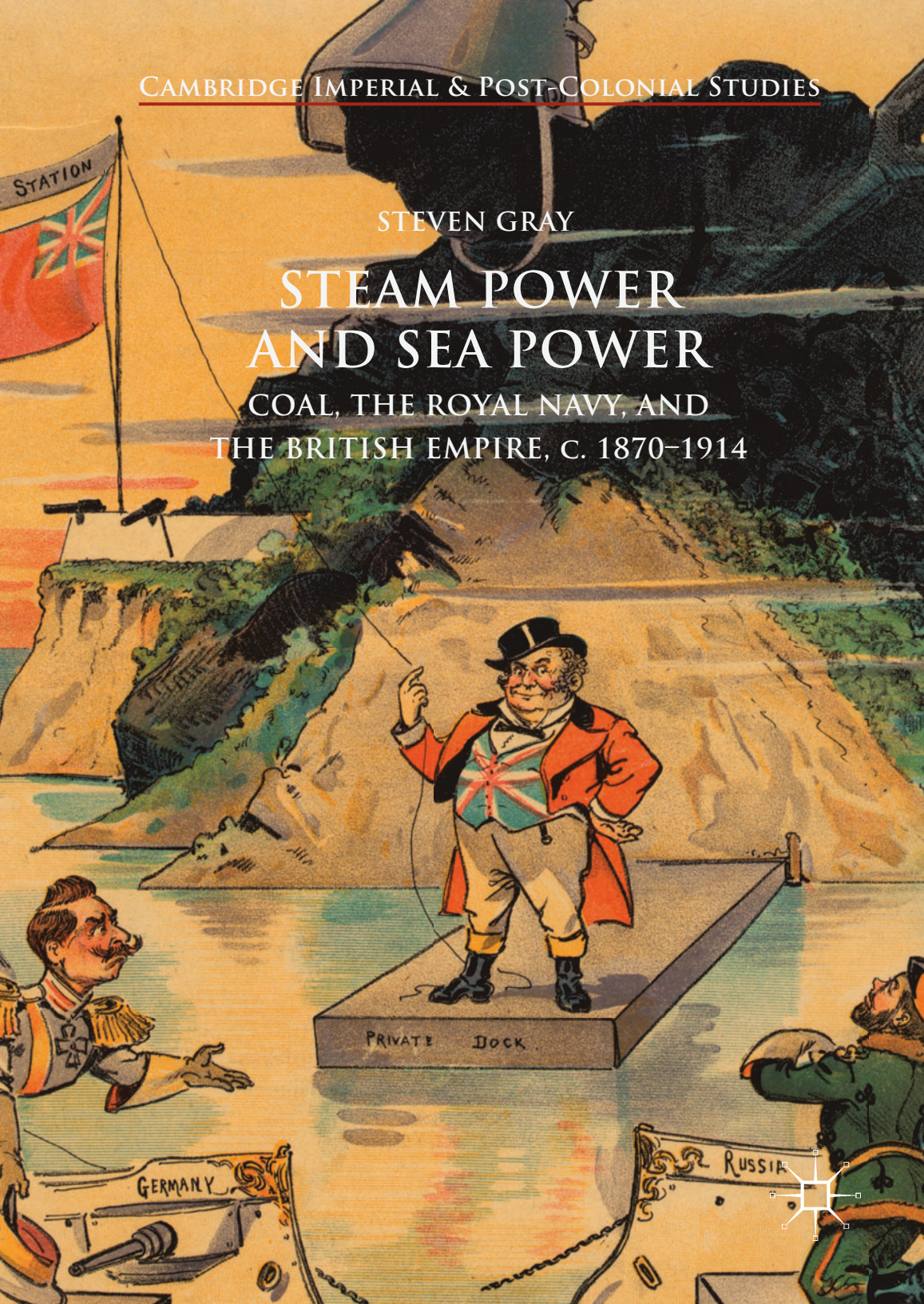


CAMBRIDGE IMPERIAL & POST-COLONIAL STUDIES

STEVEN GRAY

STEAM POWER AND SEA POWER

COAL, THE ROYAL NAVY, AND
THE BRITISH EMPIRE, C. 1870–1914



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Steven Gray

Steam Power and Sea Power

Coal, the Royal Navy, and the British Empire,
c. 1870–1914

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FOREWORD

This important book is concerned with fundamental technological change, the drivers of that change, and the impact these changes had on Britain, the Royal Navy, and the wider Empire from high policy to the sweating labour of refuelling great ships of war in both tropical and temperate climates. Britain, both nation and navy, adopted steam power at sea with alacrity and pursued ever subsequent development with the benefit of possessing the world's leading marine steam-engineering industry. By 1870, British power and prosperity depended on coal, and coal was rapidly re-shaping the empire as new harbours were built while steam technology moved out from the metropole. Although many historians have examined the wider impact of steam transport on land, few have addressed the situation at sea.

Coal fuelled the nineteenth century apogee of British power. After 1815, industry, commerce, and the Royal Navy were quick to adopt steam power, initially as an adjunct to pre-industrial sources and quickly thereafter as the prime move of national activity. Not only did British coal become a major export alongside the machinery it powered, it soon became clear that the finest coal for marine engines came from South Wales. British coal was in constant motion across the world's shipping lanes: In the 1890s, wooden sailing ships loaded coal in Liverpool for shipment to San Francisco by way of rounding Cape Horn. On arrival, that coal undercut supplies from the American East Coast. Coal gave British shipping a guaranteed outboard cargo, thus ensuring that they earned freight on both legs of any journey. This competitive advantage

helped to sustain the world's largest merchant shipping industry, and the coal it carried constituted a floating reserve for national use by supplementing coal stocks held ashore around the Empire. Foreign fleets bought this product, thus enabling British intelligence to monitor their war-like preparations and anticipate an early end to any naval conflicts with less fortunate powers.

Coal also helped the Royal Navy put on a show. When Queen Victoria came to throne in 1837, her fleets displayed their prowess to the other ships in the fleet, and to foreign rivals, by shifting their topmasts and changing yards. By 1901, they did so by competitive coaling, and these ritualised routines built the camaraderie and teamwork that formed the core of naval proficiency and produced the finely honed physiques that impressed crowds at home and abroad. Yet the navy was well aware that such work in the hot tropics could damage men's health and looking to local labour to preserve scarce skilled sailors.

By 1860, steam warships, built of iron and then steel, had replaced the wooden walls, and their demands for fuel, docking accommodation, and engineering support re-shaped British power as submarine telegraph cables, laid by iron steamships, connected the British imperial system into a modern information network for both trade and war. Those points on the globe where ships, docks, fuel, and communications met became the strategic keys that, in Jackie Fisher's delightful phrase, "locked up the word." In 1914, Britain used those points, a powerful fleet, and intelligence dominance to reduce the Central Powers to a purely European strategy, with fundamental consequences for the outcome of the conflict. By 1918, most of the world's navies had learnt the hard truth that they could not wage war effectively without British coal. Before such profound implications could be fully absorbed, the Royal Navy switched to oil fuel. Once again tradition and domestic sourcing were outweighed by superior efficiency and power. The British Empire was built by commerce, not sentiment, and defended by realists, not romantics.

Steven Gray has made a major contribution to a critical task: putting the sea back into British and Commonwealth history. He reminds us that the ties that bind were formed by ocean-going ships, which were sustained by steam, and that the great bulk of all international trade was, as it still is, maritime trade. Coal created that system, and its impact rippled across the globe, sustaining a century of British sea power, creating

new labour markets, and changing perceptions of local peoples. Today the dominion of coal is but a memory: Indeed this foreword was written on the first day that renewable sources produced more than 50 % of Britain's electricity.

July 2017

Prof. Andrew Lambert
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King's College, London

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This book has been 7 years in the making, during which time I have been associated with five institutions, so inevitably this book has gained greatly from the invaluable help of many colleagues, academics, librarians, archivists, and friends.

I am immensely thankful to those who guided me—particularly Professor Huw Bowen, Professor David Lambert, and Dr. Robert Blyth—through the process of becoming a historian. I am also grateful for funding from the AHRC, which funded the beginnings of this project. I am also indebted to former colleagues at Swansea University as well as current colleagues at the University of Portsmouth, particularly in the Port Towns and Urban Cultures group, who provided immense support and encouragement in creating a friendly and lively research environment. Staff at those libraries and archives I visited were invaluable to locating the myriad sources for which I searched.

Some academics went out of their way to assist me in the research and writing of this book, and I am humbled by their kindness. In particular, I am grateful to Professor Andrew Lambert, who offered sage advice and who agreed to write the foreword. I have also relied heavily on several brilliant academics, who I am proud to say are also good friends. Dr. Louise Moon and Dr. Robert James both offered comprehensive feedback on the entire manuscript, and Dr. Aimée Fox, Dr. David Morgan-Owen, and Dr. Daniel Owen Spence offered important comments on various iterations and parts of the book. Dr. Natalie Cox was an immense support as both a research assistant, who did an enormous

amount to get this book to publication, and a close friend. I am also grateful to Molly Beck and Oliver Dyer at Palgrave who showed endless patience with me as they guided me through the publishing process. Any errors in this book, of course, remain mine.

I am also grateful to those who often looked bemused when I tried to explain this book but who offered unconditional support nevertheless. As such I am hugely thankful to my family who have indulged and supported my love for learning since I was young and who were immensely supportive during times when I struggled. I am also fortunate to have the support of several close friends, who have done their best to keep me sane, and I am immensely grateful to Sam, Bish, Hef, and David. Finally, this book would not have been possible without the support of Lizzy, who offered seemingly infinite support and patience.

Writing this book coincided with a particularly difficult period for me, as I wrestled with the twin demons of depression and anxiety. I want to thank those friends and colleagues who encouraged me to get help, those who offered no judgment, but instead unconditional support, advice, and love. Relative strangers who took the time to offer reassurance and share experiences were invaluable, and reminded me that no one is truly an island. Writing this book gave me unparalleled insight into challenges facing academics with mental health issues. We are not alone. I am therefore grateful for those who have helped to highlight issues of mental health both in academia and more widely. With a chronically underfunded mental health sector, I am also grateful for charities such as CALM (Campaign Against Living Miserably) and Movember, who do so much to plug the gaps. Any royalties will be donated to those charities.

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Introduction

On 12 July 1871, the sea-going monitor H.M.S. *Devastation*—“by far the most formidable of its kind yet constructed”—was launched in Portsmouth. Attracting a great crowd despite inclement weather, the ship “slowly glided out of the dock” as the Royal Marine Band played the national anthem and sailors on nearby ships “hurrahed tremendously.”¹ It was a truly revolutionary ship, its ground-breaking design shown through the presence of large coal bunkers: H.M.S. *Devastation* was the first Royal Navy ship powered purely by steam and was entirely without sails. Moreover, it was the first ocean-going capital ship with all of its armaments mounted on the hull with “exceptionally heavy armour and armament.” This radical break with tradition meant that, unsurprisingly, its trials attracted international attention, with commentators being unsure if the ship was truly seaworthy.

These fears were not unfounded but were based on recent history. Less than one year earlier, the sea trial of another innovatory ship with turret guns, H.M.S. *Captain*, had ended in disaster when the unstable ship had sunk taking nearly 500 lives. With its mastless design, H.M.S. *Devastation* was more radical even than the *Captain*. It is perhaps unsurprising then that this new technology aroused fears of the unknown and a suspicion that ship architecture had moved into the realm of the impossible.

¹ “Her Majesty’s Ship *Devastation*,” *The Times*, 13 July 1871.

An American commentator, aboard for a sea trial, questioned whether it was even a ship at all:

the *Devastation* moves slowly ahead, and glides through the water as if she were a ship, instead of being a sort of infernal machine created by some tremendous engineering mind, when in a state of nightmare. In fact she is more like one's infantile idea of a bogie than anything we have ever seen.²

Yet these suspicions were soon allayed. Although never designed for long cruises of imperial waters, the *Devastation* was still “able to steam over long distances and keep the sea for a considerable time.”³ It may have been otherworldly to contemporary eyes, but it proved to be far from a nightmare, except for Britain's enemies. Instead, it was concluded that “she can steam; she can fire; and all works well ... she is a wonderful vessel.”⁴

The ship marked the beginning of the new era of the mastless steamship whose decks allowed better-positioned guns, thus making warships far more formidable in battle. Whilst more hybrid ships with sail and steam engine were built for the navy, the last of these was launched just 4 years later. It is not surprising, therefore, that H.M.S. *Devastation* has an iconic status in naval history by marking a watershed moment in ship design. It also has a cultural legacy, which lasts even to this day, as the ship famously featured at the centre of the design for “England's Glory” matches (Fig. 1.1).

This watershed created new issues for Britain. The free mobility of the Royal Navy in the age of steam has often been assumed, yet—as a correspondent aboard for the trial of *Devastation* suggested, the ship, “if working up to full power all day ... consumes 150 tons of coal per day.” Without coal, therefore, as well as the engineers and stokers to manage the engines, “the *Devastation* becomes the veriest hulk in the navy.”⁵

²“The *Devastation*,” *Inter Ocean* (Chicago), 19 July 1874. The ship was also covered extensively in J.W. King, *Report of Chief Engineer J.W. King, United States navy, on European ships of war and their armament, naval administration and economy, marine constructions and appliances, dockyards*, etc, (Washington, DC: Government Printing Office, 1877).

³“Her Majesty's Ship *Devastation*,” *The Times*, 13 July 1871.

⁴“The *Devastation*,” *Inter Ocean* (Chicago), 19 July 1874.

⁵*Ibid.*



Fig. 1.1 H.M.S. *Devastation* pictured on the “England’s Glory” matchbox. Courtesy of Marcus Böckmann

The American Admiral Asa Walker echoed these remarks in 1900, stating that ‘the modern man of war presents no canvas to the winds; within her bowels is an insatiable monster whose demand is ever for coal and still more coal’.⁶ Therefore, Britain was only able to project its power, both militarily and culturally, and to protect British interests and commerce globally in the period from 1870 to 1914, because of the global coaling infrastructure it controlled for the use of its navy. This was, of course, central to the ability of the Royal Navy to either fight or be an effective deterrent. To this end, perhaps the most influential naval theorist of this period, A.T. Mahan, suggested in 1911 that “fuel stands first in importance of the resources necessary to a Fleet. Without ammunition, a

⁶ Asa Walker, “The Battle of Manila Bay,” Unpublished manuscript, Record Group 14, Naval War College Archives, Newport, R.I., 1900. Cited in John H. Maurer, “Fuel and the Battle Fleet: Coal, Oil, and American Naval Strategy, 1898–1925,” *Naval War College Review*, 34 (6), 60.

ship might run away, hoping to fight another day, but without fuel, she can neither run, nor reach her station, nor remain on it, if remote, nor fight.”⁷

Supplying a fleet as large as Britain’s, with operations both diverse and global, required an immensely complex series of operations. Suitable fuel had to be found, tested, bought, and, transported. Strategic spaces had to be found to store the coal; labour was needed to load it; and plans were needed to protect them. Moreover, stock had to be managed and maintained to ensure that ships would have enough fuel to load when they arrived. The establishment of coaling stations also had ramifications for both those sailors who found themselves with leave after refuelling was done and for residents of those spaces who found naval visitors to be free-spending consumers, drunken nuisances, and carriers of disease.

This book therefore looks to understand the global changes wrought by a shift from a sail to a steam navy. To do so, it will not only look at the huge geopolitical and infrastructural issues caused by such a change but also the social and cultural ramifications for sailors, imperial labourers, and those residing at coaling stations. It also raises important questions about the British Empire itself. As Daniel Headrick suggests, when considering new imperialism, we must ask, ‘How did technological forces shape its development?’⁸ Indeed, when we frame it this way, coaling stations, and the networks that emanated from and around them, emerge as an important layer of the “British world-system” of the period of *Pax Britannica*. Much as John Darwin suggests in *The Empire Project*, these systems and processes often fall outside the term “British Empire,” which nonetheless played a vital role within the global British-world system.⁹ The Royal Navy was, as Andrew Lambert suggests, the “shield of Empire” (including its economic interests), and thus coaling stations were an integral part of the maintenance and expansion of global British influence in the last quarter of the nineteenth and first decade of the twentieth century.¹⁰

⁷Robert Seager and Doris D. Maguire (eds), *Letters and Papers of Alfred Thayer Mahan*, Vol. 3 (Annapolis: Naval Institute Press, 1975), 399.

⁸Daniel R. Headrick, *The Tools of Empire: Technology and European Imperialism in the Nineteenth Century* (Oxford: Oxford University Press, 1981), 4.

⁹John Darwin, *The Empire Project* (Cambridge: Cambridge University Press, 2009).

¹⁰Andrew Lambert, “The Shield of Empire 1815–1895,” in J.R. Hill (ed.), *The Oxford Illustrated History of the Royal Navy* (Oxford: Oxford University Press, 1995), 161–199.

This study, then, is far more than a technocentric history of naval architecture. Instead, the book argues that the navy's reliance on coal, a substance "utterly lacking in glamour," in fact had important consequences that shape and augment our understanding of British strategy, geopolitics, infrastructure, and transnational and imperial history in this key episode of the *Pax Britannica*.¹¹ It shows that the Royal Navy had profound effects not just on defence issues but also on labour forces, indigenous societies, imperial networks, and imaginations of empire. The navy was a key "tool of empire" and thus understanding a radical change of technology within it is crucial to our understanding of the period of high imperialism, part of "hundreds of diverse products and processes" which allowed Britain to consolidate its global power.¹²

THE COAL PROBLEM

Whilst H.M.S. *Devastation* was the first British warship to be powered solely by coal-powered steam engines, the need for a coaling infrastructure for the Royal Navy, thus allowing ships to be at least partly powered by their engines, predates its launch. Indeed, mastless ships were just one part of the huge changes in naval technology that occurred in the second half of the nineteenth century. The rapidly improving technology of steamships, particularly those developed after the Crimean War, increasingly offered advantages with which sail ships could not compete. Steam propulsion allowed ships' routes to be more direct, and their speed to be increased. Furthermore, it enabled the use of iron and steel in hull design, allowing more effective armour. This was especially important as new projectiles developed in the mid-nineteenth century, such as exploding shells, were devastating to wooden warships: in terms of armour that the "wooden walls" were no longer adequate. Thus, a ship design that had served Britain so admirably in the wars of the long 18th century was now obsolete.

These changes took around two decades to fully embed. It would take the radical design of the *Devastation* to fully shackle the navy to the coaling station as, until the 1870s, steam engines remained too inefficient

¹¹B. Freese, *Coal: a human history*, Oxford, 2003, 2, 13.

¹²Headrick, *The Tools of Empire*, 11–12.

to be the sole source of power for a warship. Thus, even though the Battle of Navarino in 1827 was the last to be fought by the British Navy entirely with sailing ships, the shift to a steam navy was a gradual one, with hybrid ships of both sail and steam, such as H.M.S. *Warrior*, common in the early part of this period. The shift was not instantaneous, but it did have enormous ramifications for the Royal Navy, the British Empire, and its global trade.

STRUCTURE OF THE BOOK

At its heart, this book is about mobility. Britain had global interests that it needed to protect, and thus the Royal Navy had to be able to move across the globe. As soon as it could no longer rely on the free and abundant power of the wind, its mobility relied on the presence of fuel at strategic points across the oceans. This need was a complex one, and had ramifications for imperial defence, created a need for infrastructure and vast labour forces, and meant that Royal Navy ships became far more common sites across the world, as they stopped to refuel. This book is comprised four parts, constituting a journey from the geopolitical planners in Whitehall, through the pits and coal export ports, to the imperial coaling stations, where sailors experienced both indigenous labour, local peoples, and exotic landscapes.

The first part of the book discusses the political issues resulting from a dependence on coal and uses the term “coal consciousness” to describe the increasing awareness of the importance of coal to British imperial and commercial security. Rather than discuss the coal issue in isolation, however, it argues that it is imperative to see the wider context of the last quarter of the nineteenth century in order to understand the place of coal in discussions about imperial defence. Indeed, it shows that the emerging acceptance of the need to defend coaling stations in the later 1880s, and its important effects in terms of imperial defence and naval mobilisation, did not stem only from concern about the safety of coaling in war, but was also a result of a combination of interdependent changes in state, politics and popular opinion.

Chapter 2 considers how the Carnarvon Commission, compared with the earlier Colonial Defence Committee, created an enduring coaling knowledge. This was achieved through the sheer weight of evidence and data collected, reflecting wider belief in the power and practical utility of information and knowledge.

Chapter 3 shows that even with such a glut of recommendations from the Carnarvon Commission, progress on coaling station defence was still subject to the political ideology of the incumbent government. Responses to a coal consciousness were advanced or impeded by party politics, economics, and popular views of imperial and naval weakness. While Gladstone's liberal imperialism held sway, little progress was made. Yet with a rise in pro-imperial activism, measures were eventually taken to consider the coaling issue, leading to higher naval spending. The chapter then considers the legacy of coal consciousness, arguing that it placed coal at the centre of a growing imperial defence movement, and allowed Britain to respond quickly and effectively to the German maritime threat in the First World War.

In assessing the role of the coal problem in wider debates about imperial defence, this part of the book adds an additional angle to existing studies. In doing so, it extends—and crucially draws connections between—existing studies of the navy, imperial defence and government foreign policy in the nineteenth century. Thus, it does more than simply show the importance of coal to the navy, but shows how this had strategic and imperial ramifications for the Admiralty and British government.

The second part of the book considers the materiality of naval coaling networks. Coal did not simply appear at overseas stations, but needed to be chosen, purchased, transported, and stored. As coal was so crucial to steam warships, decisions about types of coal and the supply infrastructure's robustness were central to the Royal Navy's ability to protect British interests and trade.

The coaling infrastructure used by the Royal Navy in the late nineteenth century was remarkable in many ways. Chapter 4 considers each part of the process in turn, showing not only the complexity of the system, but also its vast geographical scale and the involvement of a bewildering number of non-state actors. Despite its sprawling nature, the infrastructure was remarkable robust, even during crises, and especially compared with the systems used by Britain's rivals. The Admiralty's trials in the early part of the period showed which coal made the most suitable and efficient fuel, allowing the navy to establish and maintain high-quality supplies. Furthermore, its careful supervision of the commercial agents employed to manage the structure was crucial to ensuring that the navy's needs were met.

Chapter 5 considers how coal consciousness also affected how data were gathered about coaling worldwide with stations increasingly

required from the 1880s to provide London with information about stocks, facilities and station activities. These processes underpinned the success of Britain's naval coaling infrastructure. Indeed, by concluding with examples of the stresses and failures in the coaling systems of foreign navies, the chapter argues that Britain entered the twentieth century with the most secure infrastructure of any power.

This part of the book builds on other studies of naval supply—in particular those relating to victualling and oil—to show how supplies of coal were secured across the globe for the late nineteenth—and early twentieth—century Royal Navy. Furthermore, it extends studies of imperial networks by examining the infrastructure that allowed them to function, thereby highlighting the materiality of empire. In looking at coal, it also furthers the scope of global commodity histories, emphasising the key role and ramifications of the movement of a bulky, low-value, and unglamorous fuel such as coal.

Coaling stations were not just strategic points but also working environments. Coaling a naval ship at any station involved substantial work, especially as the amount of fuel ships required increased in the late nineteenth and early twentieth centuries. Coal, for all its advantages, is a solid, heavy, dirty fuel, and transferring it was a long and taxing process, however it was performed. The third part explores this laborious process, acknowledging not just the different systems used to coal ships, but the human experience of moving coal on board.

Coaling was often undertaken by indigenous workers. In examining accounts of these coal heavers recorded by sailors, Chap. 6 argues that, despite the unique nature of the activities and interactions at coaling stations, sailors' ideas about imperial labour and race, in particular, reflected those held commonly by Britons in the late nineteenth and early twentieth centuries. Indeed, although not all records castigate local labourers, they are usually seen as cogs in a machine, replaceable when broken. This chapter therefore explores how the need to coal ships affected local populations, showing how they caused the migration of labour, often to places where coaling was the sole employment.

Chapter 7 analyses how, as the period progressed, sailors were increasingly used to coal ships as a convenient and ostensibly free source of labour. A laborious and dirty job, coaling was unsurprisingly an almost universally hated exercise. This was compounded by the dangers involved. Often needing to coal once a week, sailors inevitably developed coping processes, which show much about both their personal and

collective identity. Indeed, competition among ships to achieve the highest coaling rates tells us much about how the naval man was built on ideas of pride, hard work, and endeavouring to be the best. Accounts also suggest that sailors realised the wider importance of coaling efficiently to allow the Royal Navy to quickly mobilise in defence of its empire.

The final part of the book examines coaling stations as sites inhabited and visited by historical actors. In fact, because of their strategic, and often commercial, importance, these diverse and multicultural places could contain a wide variety of people, including British naval personnel, merchant seafarers, local populations, economic migrants, garrison soldiers, and foreign navies. Indeed, although they were distinct places in purpose and make up, coaling stations did not exist in vacuums, but were part of other geographical places. Like ports, naval coaling stations were hybrid spaces. The strategic and logistical importance of coaling stations to the navies of both Britain and other nations created a mix of peoples and a naval community that did not exist at any other place, maritime or imperial. Moreover, as the global reach of other navies grew, these coaling stations became more diverse as the period went on. As a result, coaling stations were key contact zones between Britons, the empire and other European people abroad in the late nineteenth century and, in fact, are one of the prime examples of everyday encounters between Britons and the wider world.

Chapter 8 explores how sailors experienced the station, analysing interactions with other “westerners,” and how this shows that stations possessed a western maritime culture. It also examines the more predictable pastimes of drinking and violence, showing how these can help elucidate visions of patriotism, masculinity, and class amongst the navy, and how this could disrupt feelings of community. The chapter extends social and cultural histories of the navy by uniquely looking at the sailor in the empire and at leisure.

An integral part of leave at a coaling station, particularly for bluejackets, was an immersion in that place’s indigenous populations, cultures, unique sights, landscapes, and fauna, and it is this which the final chapter explores. Such experiences were widely recorded in diaries, published accounts, and through sketches and photographs, many of which were widely disseminated at home. The ways in which stations and their populations were depicted largely fitted a wider pattern of seeing imperial spaces, and the populations, landscapes, and fauna that resided in them

as exotic and “other.” The chapter also explores use of indigenous prostitutes, showing how, although tolerated “on station” despite domestic moral fervour, the spread of venereal disease was a real problem for the navy, something often blamed on the race of the women.

This book therefore shows that the technological changes of the second half of the nineteenth century were far more complex, and with far bigger ramifications, than is often considered. At the centre of these ramifications were lumps of steam coal—“the black diamond ... [that] ... sways the destinies of Empires.”¹³

¹³“King Coal,” *Western Mail*, 9 November 1898.

PART I

The Rise of Coal Consciousness: Coal,
State, and Imperial Defence

Investigating the Coal Question

In 1882, Lord Carnarvon delivered his Commission's third and final report on "the best means ... of providing for the defence and protection of Our Colonial Possessions and commerce ... special attention being given to necessity of providing safe coaling, refitting and repairing stations ... in time of war."¹ These three reports attempted to assess and make recommendations for the permanent security of British interests and shipping. Their influence was such that they are widely seen as the beginnings of a coherent global defence strategy.

This book is, of course, not the first to argue for the importance of the Carnarvon Commission. Indeed, Peter Burroughs has described it as "a turning point in official [imperial defence] policy."² It does, however, argue for a more complex understanding of these reports, framing them within a changing political landscape and placing the Commission within the rapidly changing context of imperial and foreign policy that came to dominate the politics of the late nineteenth century. At the centre of these debates was, necessarily, the Royal Navy, the primary safeguard of British global trading interests. Whilst threats to empire and trade, both real and imagined, help to explain the development of these debates, the

¹ *London Gazette*, 12 September 1879.

² Burroughs, "Defence and Imperial Disunity," Porter, A.N. (ed.), *The Oxford History of the British Empire. Vol. 3, the Nineteenth Century*. (Oxford: Oxford University Press, 1999), 335.

primary causes for alarm were the problems the navy faced in fulfilling its worldwide role in the age of steam.³ Chief amongst these was a need for a safe and regular supply of quality coal wherever a ship may be. Thus, to understand this turning point in imperial defence policy, we must trace the rise of “coal consciousness”—a dawning realisation about the crucial part that the security of coal and coaling infrastructure played in the protection of British interests abroad.

Whilst it may have been a defining moment, the Commission was far from the beginning of debates around the coal question, nor the first time it had been understood in terms of a wider imperial context. An awareness of the strategic importance of coal had existed for some time in commercial and shipping circles, and had been an important issue for the Admiralty from the moment that a steam navy had been pursued by Britain. Yet outside of a small minority of navalists, the linkage between coal supply and strategy had received little attention, and even less concerted investigation. That this issue came to be placed front and centre in imperial defence planning can therefore be explained for two reasons. First was a rapid expansion of seaborne trade on a global scale, which mobilised much stronger commercial and financial backing for a strong navy. Second was a growing uncertainty in Britain more generally about its place as the global hegemon. It was only when this status, and therefore trade, appeared to be under threat that Britain began to seriously consider the importance of coal to imperial defence.

This connection meant that debates around the coaling question necessarily were made in the context of wider understandings of imperial and trade debates, yet the importance of this context, and of coal's importance to other parts of this debate, have largely been ignored by historians. This chapter, therefore, charts the course of coaling debates until the publication of the Carnarvon Commission's reports in 1882, considering how responses to the coal question were both affected by, and crucial to, shifts in political thought about imperial defence. In particular, it considers how the Carnarvon Commission, compared with the earlier Colonial Defence Committee, created an enduring coaling knowledge, achieved through the sheer weight of evidence and data collected,

³Beeler, “Steam Strategy and Schurman,” in Kennedy, Greg, Neilson, Keith and Schurman, Donald M. (eds.), *Far-Flung Lines: Essays on Imperial Defence in Honour of Donald Mackenzie Schurman*. (London: Frank Cass, 1996).

reflecting a wider belief in the power and practical utility of information and knowledge.

UNDERSTANDING THE COAL QUESTION

The Marquess of Salisbury famously remarked in 1877 that “English [foreign] policy is to float lazily downstream, occasionally putting out a diplomatic boat-hook to avoid collisions.”⁴ This statement reflected a general confidence in the political-economic orthodoxy of free trade that had been highly successful in expanding Britain’s merchant marine, whilst driving down defence costs around the empire.⁵ Yet the world was changing. Although things would not come to a head until a year later at the height of the Eastern Crisis, questions were being raised about both Gladstonian foreign policy and attitudes toward empire. Unrest in the formal and informal empires, including major rebellions in Jamaica and New Zealand in the 1860s, undermined a policy based on the low-cost defence of empire, not least because they were widely seen to have been exacerbated by cost-saving troop withdrawals from the colonies. Alongside the growth of other powers, both in a commercial and in a military sense, Gladstone faced the accusation that they were endangering the empire for a foreign policy that appeared to be based on peace at all costs. This led to what have often been seen as defensive annexations, prompted by fear of a rival power taking control of territories and denying Britain access to its trade.⁶

Seizing on this discontent, the Conservative Party under Benjamin Disraeli reinvented itself as the “imperial party.”⁷ Epitomised by Disraeli’s Crystal Palace speech of 1872 where he announced that one of the aims of his party was “for maintaining the greatness of the kingdom and the empire,” Gladstone’s imperial and foreign policies came under attack.⁸ Disraeli suggested that the Liberal leader’s refusal to increase

⁴ Malcolm Pearce and Geoffrey Stewart, *British Political History, 1867–1990: Democracy and Decline*. (London: Routledge, 1992), 143.

⁵ E.H.H. Green, *The Crisis of Conservatism: The Politics, Economics, and Ideology of the Conservative Party, 1880–1914*. (London: Routledge, 1995), 2.

⁶ Green, *The Crisis of Conservatism*, 67.

⁷ Ibid. 67–69.

⁸ Disraeli suggested that the working classes “are for maintaining the greatness of the kingdom and the empire, and they are proud of being subjects of our Sovereign and members of such an Empire. Well, then, as regards the political institutions of this country, the

spending on imperial matters in the face of (largely imagined) French and Russian threats in particular equated to a “strange mania for eating dirt” and to “living in a blaze of apology.”⁹ Disraeli’s ability to exploit a growing unease with Gladstone’s policies in the popular consciousness meant that they soon became synonymous with “penny-pinching commercialism.”¹⁰ This was combined with criticism of the method of “defence by scare” resulting from a lack of a sustained or systematic consideration of the requirements of the empire.¹¹ As a result, empire was once again an electoral issue by the 1870s, and the self-styled imperial party were able to take the initiative, returning to power in the 1874 election with their first absolute majority since the 1840s.

Of course, the threat caused by the growth of Britain’s rivals was not purely a party political issue but one that increasingly caused it geopolitical headaches. Unlike other imperial powers of the time, Britain was not a continentally-minded military power, but rather a state with a maritime culture. As such, the sea was not just a space to project power across, as it was to its rivals, but instead the source of security for both the nation and for its trade. Britain relied on the sea, and, as such, the ability to control it and to defend its trading networks were crucial to its global power and interests. Unsurprisingly, then, threats to its oceanic hegemony could not be taken lightly.

Whilst a shifting global balance of power alone exerted significant pressure on British maritime hegemony, this was complicated by the fact that the latter part of the nineteenth century saw Britain increasingly reliant on new technologies (such as the telegraph and steamship) to project its power on a global scale more easily. In theory, at least, these multiple

maintenance of which is one of the chief tenets of the Tory Party, so far as I can read public opinion, the feeling of the nation is in accordance with the Tory party.” Speech at banquet of the National Union of Conservative and Constitutional Associations, Crystal Palace, London (24 June 1872), cited in “Mr. Disraeli at Sydenham,” *The Times*, 25 June 1872.

⁹ Pearce and Stewart, *British Political History*, 39.

¹⁰ Anna Gambles, *Protection and Politics: Conservative Economic Discourse, 1815–1852*. (London: Royal Historical Society, 1999), 230; J.P. Parry, *The Politics of Patriotism: English Liberalism, National Identity and Europe, 1830–1886*. (Cambridge: Cambridge University Press, 2006), 3–10.

¹¹ See Richard Cobden, *The Three Panics: An Historical Episode*. (London: Cassell, 1884).

advantages of these advances employed across the empire allowed Britain unprecedented communication and global range, and have often been viewed through the whiggish lens of perpetual progress. However, they also came with inherent flaws and weaknesses should Britain be involved in a global war, particularly if an enemy could disrupt or destroy crucial parts of the infrastructure.¹² The global network of telegraphs, for example, offered both advantages to, and placed burdens upon, British global defence, as Paul Kennedy has shown. Swift communication allowed Britain to defend its empire and other interests more effectively in the face of its rivals, and, furthermore, the ability to deny others the use of its networks. Yet such a huge span of infrastructure inevitably had weaknesses, which, if left undefended, could potentially be exploited even by a much smaller power, causing Britain disruptions in its crucial communication networks, and threatening its ability to protect its oceanic interests.¹³

Whilst the telegraph network has received ample attention from historians, it was not the only infrastructure vulnerable in this way.¹⁴ Possessing a fundamentally maritime empire, with its trade crossing the world's oceans, a global navy was of crucial importance to the British. The advent of a steam navy therefore necessitated the establishment of a chain of coaling stations to service the Royal Navy's needs (see Fig. 2.1). Although this allowed the Royal Navy to maintain a truly global reach, it also made its infrastructure a source of critical vulnerability even to single ships of lesser powers. In this way Britain increasingly considered coaling stations, such as its telegraph network, as crucial, but also particularly exposed, parts of its global infrastructure. As such, they were key drivers of debates and actions on the larger issue of imperial defence.

¹²The breakdown of infrastructure has been explored for the recent past in Stephen Graham, *Disrupted Cities: When Infrastructure Fails*. (London: Taylor & Francis, 2009).

¹³Paul Kennedy, "Imperial Cable Communications and Strategy, 1870–1914," *The English Historical Review*, 86, 341 (1971), 728–752.

¹⁴For example: Peter Putnis, Chandrika Kaul, and Jurgen Wilke (eds.), *International Communication and Global News Networks: Historical Perspectives* (New York: Hampton Press, 2011); Glen O'Hara, "New Histories of British Imperial Communication and the 'Networked World' of the nineteenth and Early twentieth Centuries," *History Compass*, 8, no. 7 (2010), 609–625; Daniel R. Headrick, *The Invisible Weapon: Telecommunications and International Politics, 1851–1945* (Oxford: Oxford University Press, 1991); Iwan Rhys Morus, "The Nervous System of Britain: Space, Time and the Electric Telegraph in the Victorian Age," *The British Journal for the History of Science*, 33, no. 4 (2000), 455–475.



Fig. 2.1 Map of coaling stations, Admiralty, (1874 [corrected to 1887]). Courtesy of the National Museum of the Royal Navy, Portsmouth

The development of concerns about the weaknesses of the infrastructures of steamship and telegraph technologies followed similar trajectories to the rate of their adoption. Thus, just as it was the huge growth of telegraphic networks in the 1870 that precipitated fears about its weaknesses, when the navy became almost fully shackled to the coaling station—with the adoption of mastless steam ships—in the 1870s naval thinkers became increasingly coal conscious.¹⁵ This awareness went beyond solely recognising a need for a global chain of stations, and an efficient and reliable infrastructure with which to supply them, but also emphasised that both needed to be adequately protected in the event of war. Like the telegraph, the very technology that allowed Britain to project its power more effectively, was also its Achilles heel. The disruption, destruction, or loss of coaling stations could hamper or even paralyse British naval operations in those waters. Such fears, John Beeler suggests, led to a “body of doctrine on the connection between Empire, trade, coal and defence” existing by the mid-1870s.¹⁶ These fears may not have been well founded, as none of Britain’s rivals alone were able to match its global reach, but in an era of heightened geopolitical tensions, and an increasing fear that Britain had rested on its laurels for too long, these threats loomed large.

Coaling stations, such as telegraph cables, were potentially easy targets even for weaker rivals. Britain did not need to look back far for proof of how effective even small numbers of cruisers from inferior navies could be, with the devastating activities of the Confederate SS *Alabama* in the American Civil War, less than a decade previous.¹⁷ These fears were accentuated by the lack of protection at the majority of Britain’s coal depots used by the navy. A need to protect strategic naval bases was of

¹⁵The first was introduced in 1871. The introduction of steam engines had been gradual due to concerns about the performance and efficiency of steam engines, see: Quentin Hughes, *Britain in the Mediterranean and the Defence of Her Naval Stations* (Liverpool: Penpaed, 1981), 136. Although needed less regularly, they were also shackled to the dry dock, something that has been discussed in Andrew Lambert, “Economic Power, Technological Advantage, and Imperial Strength: Britain as a Unique Global Power, 1860–1890,” *International Journal of Naval History*, 5, no. 2 (2006).

¹⁶Beeler, “Steam Strategy and Schurman,” in Kennedy, Neilson, and Schurman (eds.), *Far-Flung Lines*, 326.

¹⁷*Alabama* successfully burned 65 Union vessels, most which were merchant ships. See, for example, Raimondo Luraghi, *A History of the Confederate Navy*. (Annapolis: U.S. Naval Institute Press, 1996).

course something that was not new, and concerns had been raised often in the eighteenth century.¹⁸ Yet the advent of a global steam powered navy gave a new importance to stations and imperial spaces that had previously been seen as unimportant backwaters, and had therefore barely featured at all in British defence thinking. This included those that were “almost exclusively coaling stations and ports-of-call, with little other trade,” as well as “brand-new colonial cities such as Karachi, Mombasa, Singapore, Port Saïd, and Aden,” which grew with the new steamer trade.¹⁹ Of most concern were those regularly used by the navy. Of these, it was only the Imperial Fortresses of Halifax, Bermuda, Gibraltar, and Malta that had any defences at all. Such weakness means it was not entirely implausible that even a few enemy cruisers could cripple the ability of the Royal Navy to refuel in large parts of the world.²⁰

These fears fed into a wider narrative of increasing criticism of what was increasingly seen as Gladstone’s negligence of empire in the 1870s. The potential danger to coaling infrastructure was therefore part of a wider anxiety about Britain’s place in the world, and the safety of its trade and possessions beyond its own shores. Indeed, it is not a coincidence that it was precisely this time when similar concerns about Britain’s telegraph network were aired.²¹

THE EMERGENCE OF COAL CONSCIOUSNESS

Whilst the defence of naval coal supply would become a central issue in imperial defence planning in the 1880s, the coal question was not considered an important issue, even by many of those in the Admiralty, at least for the first half of the 1870s. With mastless steamships still a new phenomenon, the need to protect coal and to ensure a worldwide fuel supply took time to reach wide scale acceptance. This was not least because the majority of ships, particularly those on far-flung stations, still had sails. Thus, it was only a small minority of navalists, led by Sir J.C.R. Colomb and Sir Alexander Milne, who were increasingly vocal

¹⁸See, for example, the work of Daniel Baugh.

¹⁹Daniel R. Headrick, *The Tools of Empire: Technology and European Imperialism in the Nineteenth Century*. (Oxford: Oxford University Press, 1981), 168.

²⁰See, for example, ‘Memorandum on Colonial Defences’, TNA, CO 537/208.

²¹Kennedy, *Imperial Cable Communications and Strategy, 1870–1914*.

about what they saw as an impending naval disaster, should Britain find itself at war. Colomb, alongside his brother, was a prolific writer on naval strategy. Perhaps one of the earliest to develop a coal consciousness, he recognised in 1867 that difficulties in war could only be avoided by ensuring the “wartime availability of coal supplies, which would enable the squadron to operate effectively while at the same time denying these coaling facilities to enemy cruisers.”²² That his ideas did not gain traction may be attributed to the fact that although he raised these issues as an MP in the House, he had no official governmental role, and thus his concerns were easily marginalised. Milne, however, was First Naval Lord when the first mastless ship was launched, and had advocated similar ideas to Colomb as early as 1858, warning about the danger of not defending coaling stations during a war scare with France.²³ He further suggested in 1874, whilst still in post, that “coaling stations would be the great problem in a future war and they must be maintained and extended ... We could get no coal except from our own colonies, where new depots would have to be established.”²⁴ Yet even a key man in the Admiralty, albeit one who would soon be retiring from post, failed to substantially develop a wider coal consciousness outside of purely naval circles. The reasons for this are threefold: the Admiralty lacked influence in Government, where the War Office held much more sway. More crucially, with Gladstone in power, funding naval defence in the empire generally attracted little support.²⁵ Finally, coaling station defence was generally seen to be a question of land defence, meaning that it was not the responsibility of the Admiralty, but of the War Office.

Here, the issue found some interest, and several papers on coaling station defence were published. Discussions tended to be led by Royal Engineers and, in particular, perhaps the foremost British military engineer, Sir William Jervois. As such, considerations of global strategy were

²²Quoted in Beeler, ‘Steam Strategy and Schurman’, in Kennedy, Neilson, and Schurman (eds.), *Far-Flung Lines*, 33.

²³He served as First Naval Lord (the professional head of the Royal Navy) in 1866–1868, and again in 1872–1876.

²⁴Milne, quoted in Beeler, ‘Steam Strategy and Schurman’, in Kennedy, Neilson, and Schurman (eds.), *Far-Flung Lines*, 34.

²⁵Beeler, ‘Steam Strategy and Schurman’, in Kennedy, Neilson, and Schurman (eds.), *Far-Flung Lines*, 34.

almost inevitably reduced to questions of bricks and mortar.²⁶ Despite the publication of several reports, enthusiasm for the subject did not extend to its top echelons, once again reflecting a wider mid-Victorian liberal consensus that focused on the defence of Britain, which was based on the belief that Britain's naval supremacy was assured.

Whilst it is perhaps easy to see this as a rather complacent attitude toward the safety of Britain's global commerce and empire, especially if one considers the "imperial crises," arms race, and eventual world war of the subsequent decades, in the early 1870s this standpoint was understandable. Britain had successfully avoided large-scale war on the continent since 1856, and with its battleship fleet unchallenged, trade had flourished, and control of the empire had remained largely secure, despite diminished defence budgets.²⁷ Unsurprisingly, then, this status quo of low spending and growing trade was largely accepted, and this was the greatest obstacle against implementing hugely expensive recommendations for coaling station defence. This in turn explains why even the self-styled "imperial party" under Disraeli did little to address the situation in the early part of his premiership.

TOWARD AN OFFICIAL COAL CONSCIOUSNESS

Although there were growing imperial tensions in the early 1870s, as a wider sense of geopolitical unease developed, it was not enough for even the Conservatives to pursue a radically different imperial agenda. It took the Eastern Crisis, which peaked in 1877–1878, to fully expose cracks within the mid-Victorian liberal consensus over foreign policy. For the first time since 1856, a large-scale war involving Britain appeared a real possibility, and Britain's hegemony of the oceans seemed under threat from rival European navies. The gradual and protracted disintegration of the Ottoman Empire led to a fear of Russian aggression toward Britain in the eastern Mediterranean. This was a particular worry to Britain, which had large amounts of trade travelling through the Suez Canal

²⁶For an excellent history of Jervois and his fortifications, see Timothy Crick, *Ramparts of Empire: The Fortifications of Sir William Jervois, Royal Engineer 1821–1897*. (Exeter: University of Exeter Press, 2012).

²⁷*Ibid.*, 41–44; Andrew Lambert, 'The Royal Navy: 1856–1914', in Keith Neilson and Elizabeth Jane Errington (eds.), *Navies and Global Defense: Theories and Strategy*. (Westport, CT: Praeger, 1995), 209.

(which opened in 1869), increasing the importance of protecting commerce in this region, and the potential danger to India made the issue even more fraught. That the Eastern Crisis became such a watershed was largely because it appeared, both inside and outside Westminster, to have “caught the Empire woefully unprepared.”²⁸ Even if the Russian threat was wholly military, as it had no fleet in the Black Sea or Mediterranean in 1877–1878, the situation in the Eastern Mediterranean was still viewed with some trepidation by the British. This was largely based on the fear, almost certainly imagined, that Franco–Russian collusion would result in the encirclement of the British Mediterranean Fleet. Moreover, the Royal Navy’s impotence—it has appeared “practically useless” during the crisis—was a source of major concern as it was remarked that Britain had been shown to be unable to act unilaterally in the defence of its imperial possessions.²⁹ This perception of British naval weakness in the face of rival aggression allowed navalist agendas to come to the fore, and, as part of this, the issue of coaling station defence was able to gain traction.

For many, this protracted incident showed that a clear threat existed to Britain and its interests. Increasingly, it seemed that it was no longer possible to protect free trade with minimal military and naval intervention, making two core facets of liberal fiscal policy incompatible. The almost ubiquitous policy of imperial indifference seen in the mid-Victorian period was therefore increasingly questioned in the 1870s. The days of those in power, especially Gladstone, “appear[ing] not to have much time for the colonies” at all, except in times of significant crisis, were giving way to the ascendant Disraelian Conservatism built on the issues of “the Empire and social reform.”³⁰ Looking to exploit a heightened imperial anxiety, the Conservative Party developed a progressively more pro-imperial rhetoric, leading to the emergence of an imperial angle to domestic politics. This rhetoric made relying on the “soft power” of

²⁸Beeler, ‘Steam Strategy and Schurman’, in Kennedy, Neilson, and Schurman (eds.), *Far-Flung Lines*, 35; Roger Parkinson suggests that this is the closest Britain came to war in the period 1856–1914: Roger Parkinson, *The Late Victorian Navy: The Pre-Dreadnought Era and the Origins of the First World War*. (Woodbridge: Boydell Press, 2008), 41.

²⁹T.G. Otte, ‘The Foreign Office and Defence of Empire 1856–1914’, in Greg Kennedy (ed.), *Imperial Defence: The Old World Order 1856–1956*. (London: Routledge, 2008), 11.

³⁰Pearce and Stewart, *British Political History*, 74; Stanley R. Steinbridge, *Parliament, the Press, and the Colonies, 1846–1880* (New York: Garland, 1982), 182.

diplomacy as a basis for imperial defence seem inadequate in the face of a growing fear of the expansion of Britain's rivals. Furthermore, it led to a feeling that Britain was losing its prestige by neglecting the empire.³¹

It did not go unnoticed that such threats were made more serious by changes in technology. Advances in naval architecture empowered Britain's rivals as well as the Royal Navy, and could endanger its maritime supremacy. Even if they lacked the infrastructure to operate without the use of facilities in home waters, improvements in warship design and efficiency increased the ability of foreign navies to wage war on an unprecedented scale and at a significant distance away from their home bases, escalating the risk to the British Empire at large.³² Moreover, navalists argued, to leave the very infrastructure that allowed the navy to protect British interests undefended seemed at best careless, but at worse potentially catastrophic. Russia may have posed little threat to Britain's maritime supremacy, but this mattered little as navalists seized upon the crisis—and the resultant pro-imperial political shift—to argue that Britain would have to increase defence spending and make its presence felt in the Mediterranean if it wished to keep its place in the world.³³ To achieve these aims there was a need to invest in new warships, improve docks, and increase naval defences, including those of coaling stations, but all were costly and required an escalation in defence estimates. Increasingly, therefore, naval reform—argued as wholly necessary by navalists—became seen as incompatible with the low defence spending at the core of the mid-Victorian liberal consensus. Thus, the growth of coal consciousness was able to gain traction precisely because of the decline of a liberal attitude to imperial defence.³⁴

³¹Otte, 'The Foreign Office and Defence of Empire 1856–1914', in Kennedy (ed.), *Imperial Defence*, 10.

³²Greg Kennedy, 'The Concept of Imperial Defence 1856–1956', in Kennedy (ed.), *Imperial Defence*, 1.

³³Peter Baldwin, 'The Victorian State in Comparative Perspective', in Peter Mandler (ed.), *Liberty and Authority in Victorian Britain* (Oxford: Oxford University Press, 2006), 65; Simon Gunn and James Vernon, 'Introduction', in Simon Gunn and James Vernon (eds.), *The Peculiarities of Liberal Modernity in Imperial Britain*. (Berkeley, CA: University of California Press, 2011), 8.

³⁴See J.P. Parry, 'Liberalism and Liberty', in Peter Mandler (ed.), *Liberty and Authority in Victorian Britain*, 99; John M. MacKenzie, *Popular Imperialism and the Military, 1850–1950*. (Manchester: Manchester University Press, 1992), 12.

More and more, coal conscious navalists were joined by the vocal support of those involved in commerce. This sector, more than any other, recognised that imperial defence was not predominantly a land based construct designed to protect those areas shaded pink on the world map. Instead, it had to be centred on all British and imperial interests worldwide, and most notably the maritime spaces used by British commercial interests.³⁵ A tenfold increase in trade between 1860 and 1910 gave Britain a huge commercial advantage, owing to its domination of the maritime industries and global shipping, but it was also viewed as particularly vulnerable in a potential war.³⁶ Ship owners were therefore particularly concerned about how an inability to coal warships might remove the Royal Navy's protection of British maritime trade, leaving it vulnerable to the predations of rival powers.³⁷ Particularly prominent amongst these was the ship owner Sir Donald Currie, of the Castle Mail Packet Company, who asked the Disraeli government during the Eastern Crisis: "in the event of war, will not the enemy be able to step in and help themselves with coal, and perhaps destroy the remainder?"³⁸ The involvement of these key business interests in highlighting the coaling question reflected how naval coaling affected both the navy and the merchant marine, and, with strong ties between business and government, they became a key pressure group for change.³⁹

Although the Conservative government had rejected two further attempts by the War Office to address the coal question in 1877, largely because both advocated significant expenditure, the worsening of the Eastern Crisis the next year meant the issue failed to disappear.⁴⁰ Instead,

³⁵Andrew Lambert, 'The Royal Navy and the Defence of Empire 1856–1918', in Kennedy (ed.), *Imperial Defence*, 115.

³⁶Britain's economic power was sustained by secure markets, the empire, and the pre-eminence of the City of London. See Lambert, 'Economic Power, Technological Advantage, and Imperial Strength'.

³⁷A.N. Porter, *Victorian Shipping, Business, and Imperial Policy: Donald Currie, the Castle Line, and Southern Africa*. (Woodbridge: Boydell, 1986), 7–8.

³⁸Donald Currie, *Maritime Warfare: The Importance to the British Empire of a Complete System of Telegraphs, Coaling Stations and Graving Docks. A Lecture*. (London: Harrison and Sons, 1877).

³⁹P.J. Cain and A.G. Hopkins, *British Imperialism: Innovation and Expansion, 1688–1914*. (London: Longman, 1993).

⁴⁰C.H. Nugent, 'Memorandum on the Relative Importance of Coaling Stations', TNA, PRO 30/6/122.

coal consciousness found a new and more influential champion in the Colonial Secretary, Lord Carnarvon, who would take a lasting interest in the issue.⁴¹ As the Eastern Crisis worsened, Carnarvon was able to use the deepening sense of urgency to push for interdepartmental consideration. Although a disagreement with Disraeli forced Carnarvon's resignation, his influence ensured that the Colonial Defence Committee was formed soon after, in early 1878.⁴²

THE COLONIAL DEFENCE COMMITTEE

The key navalist agitator, Milne, led the Committee. He was joined by Sir John Simmons, a senior and experienced representative of the War Office with huge military and diplomatic experience, who had published papers on the defence of coaling stations.⁴³ The final member was a veteran of the Colonial Office, Henry Barkly, "one of the most experienced of imperial officials in handling responsibly governed colonies."⁴⁴ The committee was thus well versed in the magnitude of the problem they faced. Simmons warned:

In the absence of such positions being provided with adequate means of defence, the operations of H.M.'s fleets for the protection of the vast interests of Great Britain, commercial as well as political, all over the world, might possibly have been greatly embarrassed, if not crippled, even by a few cruisers handled with activity and energy.⁴⁵

First meeting on 5 March 1878, it submitted four short reports less than 1 month later. Despite totalling only thirty pages, they were geographically wide-ranging, although it did not include the Imperial Fortresses

⁴¹Donald M. Schurman and John F. Beeler, *Imperial Defence, 1868–1887*. (London: Frank Cass, 2000), 55–56.

⁴²*Ibid.*, 61–63.

⁴³R.H. Vetch, 'Simmons, Sir John Lintorn Arabin (1821–1903)', rev. James Lunt, *Oxford Dictionary of National Biography*, Oxford University Press, 2004; online edn, January 2008. (<http://www.oxforddnb.com/view/article/36094>. Accessed 3 July 2012).

⁴⁴John Benyon, 'Barkly, Sir Henry (1815–1898)', *Oxford Dictionary of National Biography*, Oxford University Press, 2004; online edn, January 2008. (<http://www.oxforddnb.com/view/article/1424>. Accessed 25 Oct 2011).

⁴⁵'Memorandum of Inspector General of Fortifications', TNA, CO 537/208.

of Halifax, Bermuda, Gibraltar, and Malta, which were viewed as adequately defended.⁴⁶ The first report covered the defences of the Indian Ocean stations of Cape of Good Hope, Mauritius, Ceylon, Singapore, and Hong Kong. The second concentrated on the Australian colonies, Tasmania, and New Zealand. The third made recommendations for Esquimalt and Victoria, British Columbia. The fourth reported about the defences of Heligoland, St. Helena, Sierra Leone, Barbados, Jamaica, and Newfoundland. A further report, totalling five pages, was published separately in May, and made recommendations for the defences of the principal Canadian Atlantic ports.⁴⁷ With such a huge scope, producing these reports in such a short time required the Committee to utilise a great deal of existing knowledge. This included Colonial Office figures and telegraphic replies from colonial governors, which established the numbers of militia, armaments, and defensive works already at each station.⁴⁸ In addition, many of the Committee's recommendations were taken from existing reports on the defence of naval stations, in particular those produced for various colonies by Major-General Sir William Jervois and Lieutenant-Colonel Peter Scratchley.⁴⁹

Although it was largely collating existing data, the Colonial Defence Committee marked something of a watershed: the first real concerted effort at providing recommendations for a complete system of coaling station defence or, indeed, imperial defence. The costs were equally as ambitious: even without accounting for the provision of garrisons, the estimation of the Committee for the temporary defence of the twelve most important coaling stations came to £2300,000. This amount was considerable, considering total annual naval estimates were approximately £11,000,000.⁵⁰

The report may have been ambitious, but it had little lasting impact, instead reinforcing the precedent of defence by crisis. The perceived immediacy of the Russian threat gave the Committee inadequate time to fully consider the implications of the coal question, and thus provide

⁴⁶ 'Reports and Correspondence of the Colonial Defence Committee', TNA, CAB 7/1.

⁴⁷ Ibid.

⁴⁸ 'Correspondence Respecting the Defences of the Colonies', TNA, CAB 7/1.

⁴⁹ Peter Dennis, *The Oxford Companion to Australian Military History*. (Oxford: Oxford University Press, 1995), 163.

⁵⁰ British Parliamentary Papers, 1878 (26) *Navy estimates for the year 1878–79, with appendix. (Account of naval old store moneys and extra receipts in 1876–77)*.

much more than a synthesis of previous reports. The members may have been distinguished, with ample experience and expertise, but just three men could do little to provide solutions to such a large problem, particularly in less than a month. Furthermore, whilst Simmons' presence was crucial, due to the central place of the War Office in instigating change, his presence did little to advance a global naval strategy, instead guaranteeing that the recommendations would largely be based on physical fortifications. As a result of these factors, the Committee did not present a long-term approach to an empire-wide system of defence but instead short-term and limited measures. Many were, in fact, farcical, with years of financial neglect for defence meaning there were few armaments actually to send to defend stations. These factors, combined with the huge cost implications suggested, made the reports easy to dismiss, particularly as they were written by a committee led by a prominent navalist. As a result, it did not have a decisive effect in terms of imperial policy and was far from marking a tide change.

Instead, its greatest legacy was a result of its own inadequacy, showing that imperial defence was not a problem that could be adequately solved with the stop-gap measures and low spending, which Gladstone had implemented as policy in the mid-Victorian period. Indeed, the Committee suggested "the question of Colonial defence should be considered as a whole with reference not only to the works and their armaments but also to the forces necessary for manning them."⁵¹ Although the Colonial Defence Committee did little to advance solutions, it did lay the foundations for how such a problem might be approached. Indeed, the interdepartmental nature of the Committee and the recognition of the need for a wider integrated vision of imperial defence anticipated the committees for imperial defence from the late 1880s onwards.⁵² Furthermore, the co-operation between departments of the British Government and those of its self-governing colonies exhibited in the Committee could be seen as the beginnings of the movement toward a more integrated empire manifested through defence policy.⁵³

⁵¹Ibid.

⁵²For example, the permanent (and unconnected) Colonial Defence Committee founded in 1885.

⁵³'Memorandum of Inspector General of Fortifications', TNA, CO 537/208; Brian P. Farrell, 'The Dominions and Imperial Defence 1856–1919', in Kennedy (ed.), *Imperial Defence*, 263. See also John Edward Kendle, *The Colonial and Imperial Conferences. 1887–1911. A Study in Imperial Organization*. (London: Longmans, 1967).

Crucially, by placing coal at the centre of its investigation, it also showed how the advent of the steam navy, and its coal hungry warships, had altered perceptions of imperial defence. Places previously seen as of little intrinsic value had now become highly important, and often highly vulnerable, and were crucial to ensuring the safety of British trade and interests overseas. Furthermore, the Committee had highlighted that careful consideration had to be given to how best to instigate a global strategy that could defend Britain's global interests and that Britain's chain of coaling stations had to be a central concern in this. Perhaps most importantly, it emphasised how the navy, and therefore the infrastructure that supported it, was central to the global power and trade of Britain, and to the survival of the empire and Britain itself.

The committee could not achieve an integrated system of imperial defence despite establishing these principles, however. This would require permanent, dedicated, and well-funded bodies that could manage a structure that was expensive and complex to implement and maintain. Indeed, without rejecting the liberal philosophy of low imperial defence spending, the issue of a permanent defensive system would remain unresolved.

THE INSTIGATION OF THE CARNARVON COMMISSION

Whilst its recommendations could be easily dismissed as lacking depth, ill thought out, and expensive, in a climate of imperial anxiety the Committee made enough of an impression on the Conservative government that the issue was not abandoned. Instead, the Colonial Office suggested that "that a new Committee or Commission should be appointed to take up the questions left unsettled by the old Committee." Despite the passing of the Eastern Crisis, the coal question and its importance to trade and imperial defence continued to concern the government.⁵⁴ Consequently, a new investigation, entitled "The Commission on the Defence of British Possessions and Commerce Abroad," was announced in early September 1879, and is usually referred to as the Carnarvon Commission after its chairman: Lord Carnarvon. Although

⁵⁴"Carnarvon Commission Correspondence", TNA, CO 323/356; Hugh M. Clokie and J. William Robinson, *Royal Commissions of Inquiry: The Significance of Investigations in British Politics*. (London: Octagon Press, 1969), 75, 123.

he had recently resigned from his post as Colonial Secretary, Carnarvon remained a leading member of the governing Conservative Party, and his leadership is therefore significant in itself, showing how the coaling question had become a pressing concern even in the government's upper echelons.

That a Royal Commission was chosen seems to suggest lessons had been learnt from the Colonial Defence Committee, which had shown that such an ambitious enquiry required substantial resources. This allowed the government to assess the coal question properly, i.e., using expert opinion through a dedicated, independent body.⁵⁵ As well as being a more appropriate size for the magnitude of the task, with eight members, it also allowed the Commission to contain a wider range of experience and expertise. The importance of Carnarvon himself went beyond his political clout—he was also an able and experienced politician and imperial administrator.⁵⁶ Carnarvon's experience of dealing with colonial representatives, having been heavily involved in the federation of Canada and an unsuccessful attempt to federate South Africa, was undeniably crucial to a Royal Commission that would have to gather such a large amount of colonial data.⁵⁷ Furthermore, his political stance and imperial outlook made him ideal to lead such a Commission—as “more of an aristocratic Whig than a party man” known “for his independence of thought,” he was able to garner cross-party influence and support.⁵⁸ Moreover, he recognised that the strength of Britain lay in its maritime power, and was therefore a critic of Disraeli's “false imperialism,” which he deemed militaristic and continental. This not only allied him with some Liberals, but also helped him to appreciate that the unique

⁵⁵Clokier and Robinson, *Royal Commissions of Inquiry*, 123.

⁵⁶Although he may have not always toed the party line, he had performed well enough during his two terms as Colonial Secretary for Disraeli to feel sufficiently comfortable to leave colonial policy largely to him.

⁵⁷Peter Gordon, ‘Herbert, Henry Howard Molyneux, fourth earl of Carnarvon (1831–1890)’, *Oxford Dictionary of National Biography*, Oxford University Press, 2004; online edn, January 2008. (<http://www.oxforddnb.com/view/article/13035>. Accessed 3 July 2012).

⁵⁸P.J. Cain, ‘Radicalism, Gladstone, and the Liberal Critique of Disraelian “Imperialism”’, in Duncan Bell (ed.), *Victorian Visions of Global Order: Empire and International Relations in Nineteenth-Century Political Thought*. (Cambridge: Cambridge University Press, 2007).

maritime culture of Britain necessitated that imperial defence was not a continental, but a naval issue. As a result, he was quick to realise the importance of coal, and the need to make naval fuel infrastructure central to an integrated and empire-wide defence policy.

Continuity from the Colonial Defence Committee was assured by the presence of Milne, Simmons, and Barkly. Once again, Captain Jekyll served as Secretary, showing the significance of a growing number of experts. Whilst these appointments may seem obvious, they had the potential to prove disruptive to the work of the Commission. Milne was aggrieved not to be chairing the enquiry, and Barkly and Carnarvon had previously shared a fairly hostile relationship when they had worked closely together as High Commissioner of South Africa and Colonial Secretary.⁵⁹ To take such risks with these selections suggests that Carnarvon was more concerned about expertise than personal relationships between those on the Commission.

That the Commission contained those with experience of the three most relevant offices of government—the Admiralty, War Office, and Colonial Office—provided important expertise and, furthermore, reflects a more general enthusiasm for imperial defence measures across departments. Furthermore, colonial expertise was provided by Henry Holland, a Conservative MP who had served as a legal adviser at the Colonial Office, and as Assistant Under-Secretary for the Colonies while Carnarvon was in office.

The Commission also included two Liberals, Hugh Childers and Thomas Brassey, both of whom had a keen interest in the modernisation and reform of the Admiralty and Royal Navy. Childers had used his time as First Lord of the Admiralty (1868–1871) to improve both the administration and the economy of the Admiralty, and to implement a new programme of ironclad production.⁶⁰ Brassey was instrumental in the transformation from a sail to a steam navy and had written widely on the navy, especially over his concern about its size and strength.⁶¹ While

⁵⁹Gordon, ‘Herbert, Henry Howard Molyneux’; Benyon, ‘Barkly, Sir Henry’.

⁶⁰‘Carnarvon Commission Correspondence’, TNA, CO 323/356; William Carr, ‘Childers, Hugh Culling Eardley (1827–1896)’, rev. H.C.G. Matthew, *Oxford Dictionary of National Biography*, Oxford University Press, 2004; online edn, January 2008. (<http://www.oxforddnb.com/view/article/5296>. Accessed 13 March 2012).

⁶¹V.W. Baddeley, ‘Brassey, Thomas, first Earl Brassey (1836–1918)’, rev. H. C. G. Matthew, *Oxford Dictionary of National Biography*, Oxford University Press, 2004; online edn, May 2006. (<http://www.oxforddnb.com/view/article/32047>. Accessed 13 March 2012).

both were members of the Liberal Party, neither had much time for party politics, and rarely involved themselves in anything but naval matters in Parliament. Both men highlight the fact that not all Liberals adhered to the orthodoxy of the mid-Victorian liberal foreign policy, based on decreasing naval budgets and a concentration on home waters, while keeping foreign intervention to a minimum. Indeed, growing worries about Britain's naval strength and the emerging threat of Britain's maritime rivals led increasing numbers of Liberals to question Gladstone's stance on foreign policy and imperial defence.

What was notable about those commissioners with political ties was that none appeared to have much interest in toeing the party line but held their own, largely similar, colonial and naval vision for Britain, which was one of increased naval spending and a worldwide defence strategy. This may have reduced potential tensions, but it was also problematic, as it ensured the Commission's reports would oppose the liberal orthodoxy of minimal spending on naval and imperial defence.⁶² The Commission's outlook changed little even when both Brassey and Childers returned as part of the newly elected Liberal government in 1880 as Civil Lord of the Admiralty and Secretary of State for War respectively. Their replacements—the Earl of Camperdown and Samuel Whitbread—were again Liberals, and had both served as Civil Lord of the Admiralty. Although perhaps less high profile, they were both men with considerable experience in naval matters, and thus the dynamic of the Commission was changed little. The final member, Sir Robert Hamilton, represented the Treasury as a financial expert, largely tasked with limiting spending estimates as much as possible. Although widely seen as one of the most able civil servants of his era, with considerable experience in naval financial matters, his close connection with the Admiralty (having served as Accountant-General of the navy), may still have given him some sympathy to views of the other commissioners.⁶³

⁶²P.J. Cain, 'Radicalism, Gladstone, and the Liberal Critique of Disraelian "Imperialism"', in Duncan Bell (ed.), *Victorian Visions of Global Order: Empire and International Relations in Nineteenth-Century Political Thought* (Cambridge: Cambridge University Press, 2007); Peter Gordon, 'Herbert, Henry Howard Molyneux, fourth earl of Carnarvon (1831–1890)', *Oxford Dictionary of National Biography*, Oxford University Press, 2004.

⁶³He also would return as Permanent Secretary after the Commission. A.F. Pollard, 'Hamilton, Sir Robert George Crookshank (1836–1895)', rev. David Huddleston, *Oxford Dictionary of National Biography*, Oxford University Press, 2004; online edn, October 2005. (<http://www.oxforddnb.com/view/article/12124>. Accessed 18 May 2011).

Despite its focus, the Commission did not include, at Carnarvon's insistence, any representatives from the colonies.⁶⁴ Although colonial delegates were consulted and colonial sources used, this does not alter the fact that the Commission lacked any colonial representative actually involved in assessing the evidence and compiling the reports.⁶⁵ Thus, while it can be accurately described as "the first comprehensive study of Imperial defence," it is important to recognise it was not an imperial body as, for instance, the Colonial Conferences were from 1887.⁶⁶

THE WORK OF THE COMMISSION

The Commission sat from 1879 to 1882 and allowed its three reports to make recommendations that were both well informed and long term. Like the Colonial Defence Committee, it made use of existing figures from the War Office and Colonial Office, but, crucially, it also gathered new data from the colonies.⁶⁷ The bulk of the Commission's evidence, however, came from interviews with 39 witnesses with 5749 questions producing 255 pages of evidence.⁶⁸ As well as interviews, the Commission used a broad range of empire-wide statistical data—such as trade figures, the positioning of telegraph networks, fleet locations, and

⁶⁴Schurman and Beeler, *Imperial Defence*, 85–87.

⁶⁵TNA, CO 323/356.

⁶⁶Burroughs, 'Defence and Imperial Disunity', in Porter (ed.), *The Oxford History of the British Empire*, Vol. 3: *The Nineteenth Century*, 334.

⁶⁷'No. 8, Appendix 1, First Report of the Carnarvon Commission', TNA, CAB 7/2; W.T. Stead, 'The Truth About the Navy and Its Coaling Stations by One Who Knows the Facts', *The Pall Mall Gazette*, 16–17 October 1884.

⁶⁸'Minutes of Evidence, First Report of the Carnarvon Commission', TNA, CAB 7/2; 'Minutes of Evidence, Third Report of the Carnarvon Commission', TNA, CAB 7/4. Prominent figures among those giving evidence were shipping interests such as Donald Currie (Castle Mail Packets Company), Alfred Holt (Blue Funnel Line), Charles McIver (Cunard), and T.H. Ismay (White Star), colonial representatives such as Thomas George Baring (politician and Viceroy of India), Henry Bartle Frere (High Commissioner for Southern Africa), and Sir John Alexander Macdonald (Prime Minister of Canada), and high-ranking members of the armed forces such as the Duke of Cambridge (Commander-in-Chief of the British Army) and Admiral Sir Astley Cooper Key (First Naval Lord). Just as important was the evidence of technical experts such as Thomas Gallwey (Inspector General of Fortifications), Sir Charles Tilston Bright (telegraph engineer), Sir Peter Scratchley (military engineer and colonial administrator), and the chief engineers of various colonial ports.

warship numbers—to give an overall picture of the global implications of the coaling problem. The depth of these considerations is remarkable: The reports consider the relative strengths and locations of all rival foreign stations, including those of Argentina, Brazil, China, Denmark, France, Honduras, Italy, Japan, the Netherlands, Portugal, Russia, Spain, the United States, and Uruguay.⁶⁹ In addition to strategic importance, the distinctive nature of each station—its climate, the size of the surrounding settlements and colony, the geography of the station, and especially what already existed at the site—also had implications for the costs and scale of the recommendations. The reports were thus a recognition of the fact that in order to create a worldwide system of imperial defence, the local had to be considered along with the global.

Although it built on the work of the Colonial Defence Committee, the Carnarvon Commission represented a comprehensive change in approach for imperial defence policy. In complete contrast to the earlier Committee, its importance lay in the fact it was able to make long-term recommendations that could cope with most future eventualities, facilitated by its length, make-up, and depth of research. Most importantly, the Commission recognised imperial defence as a global oceanic construct, rather than a collection of local defences.⁷⁰ The crucial importance of trade routes, both inside and outside the empire, necessitated that imperial defence was less about land and people but rather markets.⁷¹ Thus, the Commission extended the idea of imperial defence beyond those areas under direct British rule and even in the “informal empire,” to include the vast maritime spaces used by British commercial interests. It was the navy, therefore, on which imperial security rested. As such, rather than increasing garrisons and fixed defences, the Commission suggested that “looking to the action of other countries,

⁶⁹‘Appendix 1 of Second Carnarvon Report’, TNA, PRO 30/6/131; ‘Appendix 9, Third Report of the Carnarvon Commission’, TNA, CAB 7/4. These figures were most likely taken from the Admiralty Foreign Intelligence Committee.

⁷⁰*Ibid.*, 115.

⁷¹Lambert, ‘The Royal Navy and the Defence of Empire 1856–1918’, in Kennedy (ed.), *Imperial Defence*, 112.

the strength of the navy should be increased with as little delay as possible.”⁷² A subsequent caveat, however, shows how the coal question now stood at the centre of understandings of imperial defence. After the recommendation to increase the size of the navy, the report warned that “no addition to the number [of] ships will make up for the want of coaling-stations.” This point was so fundamental, in fact, that “the Commission state[d] their belief that the command of the sea resolves itself very much into a question of coal supply—how to deprive an enemy of supplies, while securing ample supplies for our own ships.”⁷³

The Commission faced a huge task to achieve this. Of the 21 foreign stations in British territories, just 4 were defended (and all of these Imperial Fortresses were outside its remit), five were inadequately protected, and the remainder were undefended entirely. Furthermore, there was a need to understand how each fitted within a larger system. To do so, an enormous quantity and range of data were used in making comprehensive recommendations. Charts were produced that illustrated every aspect of the nature of naval coaling infrastructure, in global, regional, and local scopes, allowing the Commission to “reduce the world to order.”⁷⁴ Global charts allowed the Commission to substantiate why they considered certain sites invaluable, and to illustrate how recommendations for each station translated into a global strategy.⁷⁵ Smaller-scale regional charts of oceans, naval patrol areas, and other discrete maritime spaces allowed the Commissioners to examine and illustrate these connections and strategies clearly and in more detail, and to connect the global and local more easily. Local charts not only show the environs of the coaling station, but also include details of the proposed armaments and defensive works, thus showing the level of protection that implementation would bring to coaling infrastructure.

It was this breadth and depth of data and analysis that allowed the Commission to make considered decisions as to how best to implement a policy for imperial defence. These considerations were profoundly

⁷²‘Summary of Carnarvon Reports’, TNA, PRO 30/6/131.

⁷³Ibid.

⁷⁴Lambert, ‘The Royal Navy and the Defence of Empire 1856–1918’, in Kennedy (ed.), *Imperial Defence*, 126.

⁷⁵Of course, such charts benefitted enormously from Admiralty expertise as well as a long history of surveying, exploration, and hydrography.

influenced by the arrival of the steam-powered ship. Some stations, of course, retained the same strategic importance as they had in the age of sail, especially those that were commercial centres or proximate to rival naval stations; yet, with steamships growing ever larger, some stations with deep harbours, such as St. Lucia, gained strategic importance. With trade increasingly carried by steamships in “sea-lanes,” stations that could form a chain to allow naval ships to defend commercial shipping were also hugely important. Stations, of course, also needed to be within a load of coal’s distance away from each other, wherever in the world they were found, or else Britain could not maintain a truly global presence. These considerations were at the forefront of commissioners’ minds when they divided stations into two discrete categories. Primary stations—which kept large coal stores, had the means for the swift coaling of vessels, and often possessed dry docks—were assigned the bulk of the funds recommended.⁷⁶ Even so, the navy would be “crippled in its operations” without secondary stations and “if undefended [they] might be used or destroyed by any enemy,” and thus were also assigned limited funding.⁷⁷

The cost estimate for such a wide scope of recommendations was more than £2000,000. That this was to fund imperial, rather than home defence is particularly important, and suggests a change of direction in defence thinking. Crucially, rather than merely improving local defences, the recommendations were for places of a wider imperial importance, which together would form an integrated imperial defence scheme. These stations formed a chain that ensured that Royal Navy ships would be able to secure fuel, and therefore protect British interests, almost anywhere in the world. Many of the costs for poorer colonies were therefore to be covered by the British government, thus reflecting an awareness that there was a need to protect coaling stations as soon as possible.⁷⁸ However, where the colony was rich enough, costs would be divided, showing an understanding that in order to compete with the burgeoning economic, industrial, and military power of its rivals, Britain would have

⁷⁶‘Report by Sir L. Simmons 21 June 1882’, TNA, PRO 30/6/125; Third Report Appendix’, TNA, PRO 30/6/125.

⁷⁷‘Third Report Appendix’, TNA, PRO 30/6/125; ‘Report by Sir L. Simmons, 21 June 1882’, TNA, PRO 30/6/125.

⁷⁸‘Summary of Carnarvon Reports’, TNA, PRO 30/6/131.

to involve the self-governing colonies more in imperial defence. This represented a shift away from the detached attitude of mid-Victorian governments toward the empire, instead reflecting the ideas of the less radical elements of the “imperial federation” movement.⁷⁹

CONCLUSIONS

The advent of a navy fuelled only by coal changed the dynamics of maritime defence. Places previously seen as being of little intrinsic value became highly important places to defend due to their place as part of a chain of coaling stations. The ability to coal overseas became crucial to ensuring the safety of British trade and interests.

By the late 1870s, a coal consciousness had emerged to the extent that two investigations were conducted into how best to ensure the safety of coaling infrastructure. Whilst the Colonial Defence Committee marked a continuation of a “defence by scare” policy, the Carnarvon Commission precipitated reports of far more importance. The detailed nature of the reports says much about the Commission’s worries about the defence of naval coaling stations and, moreover, how far attitudes toward the coal question, and indeed imperial defence in general, had changed in less than a decade.⁸⁰ The depth of data analysed, organised, and legitimised by a government authority meant the knowledge it created was pervasive and enduring.⁸¹ We can, therefore, see the Carnarvon Commission as an attempt to create coaling knowledge in order to ensure British power over naval fuelling and mobility. Despite being clearly influenced by those who sat on the Commission, the reports were still widely seen as the authoritative coaling knowledge, especially after 1884. As a consequence, it has been argued that the recommendations were “of special importance because they lay down the general principles

⁷⁹See Duncan Bell, ‘The Victorian Idea of a Global State’, in Bell (ed.), *Victorian Visions of Global Order: Empire and International Relations in Nineteenth-Century Political Thought* (Cambridge: Cambridge University Press, 2007), 159–185; Charles Wentworth Dilke, *Greater Britain: A Record of Travel in English-Speaking Countries During 1866 and 1867* (London: Macmillan, 1868); Duncan Bell, *The Idea of Greater Britain: Empire and the Future of World Order, 1860–1900*. (Princeton, NJ: Princeton University Press, 2007).

⁸⁰‘Third Carnarvon Report’, TNA, PRO 30/6/131.

⁸¹Thomas Richards, *The Imperial Archive: Knowledge and the Fantasy of Empire*. (London: Verso, 1993), 3–5.

of imperial defence,” and central to these principles was coal and coaling infrastructure.⁸² Indeed, the reports might well be described as a blueprint for an imperial defence policy, and it was testament to the importance of coal that this simple fuel had instigated the first comprehensive assessment of and recommendations for a complete system of imperial defence.⁸³

⁸²W.C.B. Tunstall, ‘Imperial Defence, 1870–1897’, in J.H. Rose, A.P. Newton, E.A. Benians, and H. Dodwell (eds.), *The Cambridge History of the British Empire. Vol. 3: The Empire–Commonwealth*. (Cambridge: Cambridge University Press, 1959), 232–234.

⁸³Schurman and Beeler, *Imperial Defence*, 86.

From Coal Consciousness to Coal Consensus

For all of the depth and range of data analysed by the Carnarvon Commission, any immediate progress on imperial defence was halted before its recommendations were even completed when Gladstone's government was returned to power in 1880. His presence as Prime Minister severely retarded the impact both the Carnarvon Commission and coal consciousness had on government policy. It would take the fall of Gladstone to allow significant change to occur.¹

This chapter therefore explores the effects that political ideology and coaling knowledge had upon each other. Substantial progress on the coal question was subject to the political ideology of the incumbent government, yet simultaneously the legitimacy of the Carnarvon reports held the power to question the Government's imperial policy (or lack of). In other words, responses to a coal consciousness were advanced or impeded by party politics, economics, and popular views of imperial and naval weakness. Because of this, it is imperative to understand the rise of coal consciousness in the wider context of the last quarter of the nineteenth century. The development of this consciousness into a general concord about coal's importance in imperial defence in the later 1880s, or a "coaling consensus" and the important effects it had in terms

¹ Coal consciousness is described as the realisation of the crucial part that the security of coal and coaling infrastructure played in the protection of British interests abroad. See Chap. 1.

of imperial defence and naval mobilisation, were therefore not a simple result of concern about the safety of coaling in war. They were instead a result of a combination of interdependent changes in state, politics, and popular opinion. As such, the resultant formation of bodies to consider the coaling issue, and the subsequent high naval spending that occurred, need to be seen in this context.

Moreover, even though the eventual demise of Gladstone allowed coal consciousness to develop into an almost complete coaling consensus, the coaling knowledge created by the Carnarvon Commission was static: a series of reports made by a non-permanent body. If coal consciousness was to be transformed into a coherent defence and infrastructural strategy after 1882, more permanent bodies were needed to constantly collect, collate, and analyse data, which could then inform government actions. Thus developments within the state apparatus were necessary in order both to inform and carry out the policies of coaling defence. The growing need to implement and maintain the infrastructure and defence of coaling increasingly necessitated the creation of bodies with specialised roles. This was manifested through the Colonial Defence Committee (confusingly given the same name as the completely unconnected body of 1878), a permanent standing government organisations that facilitated an ongoing debate about the defences and maintenance of coaling infrastructure, amongst other naval and imperial defence issues. This allowed improvements in the interactions between bodies of government. Furthermore, the creation of the Naval Intelligence Department, which superseded the Foreign Intelligence Committee, allowed the perpetual gathering and analysis of data to produce a current coaling knowledge.

The emergence of these specialist committees whose remit included the coal question was not an isolated occurrence but can also be situated in the wider development and growth of what might be termed a modern state apparatus in the late nineteenth century.² This was typified by two interrelated phenomena: a growth in government bureaucracy and increased specialisation in civil service positions. These changes were

²See, for example, James C. Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed* (New Haven, CT: Yale University Press, 1998). For a history of the Admiralty, see C.I. Hamilton, *Admiralty The Making of the Modern Admiralty: British Naval Policy-Making, 1805–1927* (Cambridge: Cambridge University Press, 2011).

responses to the challenges faced by Britain as the nineteenth century came to a close. For imperial defence, the rise of coal consciousness was a key part of the creation of these bodies, and thus we can see increasing concern about the coaling issue as a catalyst for the development of a more extensive imperial defence bureaucracy.³

THE EFFECTS OF THE CARNARVON COMMISSION

The build-up to the election of April 1880 was dominated by foreign policy. Gladstone's campaign for re-election emphasised the humiliating defeats suffered by the British in the course of the Anglo-Zulu and Second Afghan wars as well as poor management of the Eastern Question and Bulgarian atrocities, which squarely laid the blame for these at the feet of Disraeli. The Liberals cast the Conservative Prime Minister as "un-English," and accused him publicly of having endangered the empire by overextension and seeking glory as Napoleon and the emperors of ancient Rome had done.⁴ These comparisons tainted the nascent imperial foreign policy of the Conservative Party as aggressive, vain, and reckless, and the references to two powerful empires destroyed by the greed of their rulers were not lost on contemporaries. The British people, in the grip of an economic depression and suffering high taxation, were swayed by this message of recklessness and British decline, and, with Disraeli's popularity waning, Gladstone returned with a large majority.⁵

With Gladstone returned to power through a campaign that argued against Disraelian foreign policy, it is unsurprising that the returning Prime Minister reverted to his policy of indifference toward the empire. Imperial defence, an increasingly prominent issue under the Conservatives, received little attention in the aftermath of the election. As part of this, the coal question largely disappeared from government

³This is also reflective of the wider Victorian state "machinery" in general along with the increase in statistical collection and reporting; increasing desire to categorise and quantify Victorian society (classes) and industry; and the subsequent explosion in recording and bureaucracy, particularly after the introduction of Birth, Marriage and Death recording as well as standardised census taking and recording.

⁴J.P. Parry, *The Politics of Patriotism: English Liberalism, National Identity and Europe, 1830–1886* (Cambridge: Cambridge University Press, 2006), 335.

⁵*Ibid.*, 339.

discussion. Gladstone was elected as Prime Minister just a year into the Carnarvon Commission, and whilst it was allowed to finish its reports without supporters in the upper echelons of government, even the legitimised coaling knowledge it produced could do little to establish a coal consciousness within the government. Once the reports were completed, Gladstone blocked the release of the reports to all but a select few, and the damning findings were thus kept from the public.

The Carnarvon Commission was therefore not the turning point in imperial defence policy as may have been expected, at least not immediately. The reports may have been authoritative, but from the very beginning of its term in office there was little to suggest that the Liberal government intended even to contemplate any of Carnarvon's proposals. Yet, despite being less than a year old at the time of the election, the government requested that the Commission continue their work. Whilst this might seem counterproductive to a party that advocated low defence spending, it allowed the new government to avoid any immediate criticism by removing the issue from political debate for two years.⁶ The government's ability to escape censure even after the Commission had ended, however, was a problem of Carnarvon's own making. On accepting the chair of the enquiry in 1879, fearing public knowledge of British weakness, the Earl had insisted that a confidentiality clause to be attached to the reports. The government therefore blocked their publication, thus ignoring the report's recommendations without risking public condemnation. The Colonial Office made no secret of these intentions when writing to the Commission, reminding them that "the reports are very confidential and it is therefore important that they should not be communicated to anyone except in strict confidence."⁷ This was perhaps a wise move for a government committed to low defence spending because "so serious were the conclusions and evidence" contained in the reports that censorship was the only way that Gladstone's stubborn stance ... could escape criticism."⁸ Although the creation of a base of coaling knowledge was a powerful tool for those advocating coal

⁶Hugh M. Clokie, and J. William Robinson, *Royal Commissions of Inquiry: The Significance of Investigations in British Politics* (London: Octagon Press, 1969), 123.

⁷'Memorandum circulated 24 July 1882', TNA, CO 323/353.

⁸W.C.B. Tunstall, 'Imperial Defence, 1870-1897', in J.H. Rose, A.P. Newton, E.A. Benians, and H. Dodwell (eds), *The Cambridge History of the British Empire. Vol. 3: The Empire-Commonwealth* (Cambridge: Cambridge University Press, 1959), 232.

consciousness, and later in creating a coaling consensus, it was also damaging for those exponents of a more Gladstonian, low-spending defence strategy. With the ability to exploit the confidentiality of the reports, Gladstone's Liberals were able to obstruct any progress on the scale recommended in the findings.

Coal consciousness may have had few supporters influential in Cabinet, but it did not disappear entirely. Indeed, enough pressure from outside was exerted that token efforts were made to address the issues Carnarvon had raised. In 1883, the reports were passed to Lieutenant-General Sir Andrew Clarke, Inspector General of Fortifications, who was asked to provide suggestions on the issue. As a staunch Gladstonian Liberal, his proposals vastly reduced the estimates suggested by the Commission, but it was progress of sorts.⁹ Clarke's report was recommended by the Defence Committee, a subdivision of the War Office, and "generally approved" by the Secretary of State for War. These amendments may have lessened the effect of Carnarvon's recommendations, but the issue still appeared to be receiving some government attention. The state machinery soon slowed its progress, however: It took 5 months to pass between the War Office, the Colonial Office, the India Office, and the Treasury. When it did emerge, the report contained many errors, including incorrect cost divisions.¹⁰ Carnarvon, bound to secrecy, could do little while the issue slowly disappeared from public sight.

"A PUBLIC FURORE"

Gladstone may have believed that the issue would subsequently slip from the public agenda, but by 1884 his attitude had caused a split in the Cabinet over naval spending. This caused "one of the most cantankerous of the young Liberals," Oakley Arnold-Forster, to pass the reports, as well as other naval dossiers, to W.T. Stead, editor of the *Pall Mall Gazette*.¹¹ Subsequently released as part of *The Truth About the Navy*, a

⁹ Donald M. Schurman and John F. Beeler, *Imperial Defence, 1868–1887* (London: Frank Cass, 2000), 127–128; 'The Report on the Defences of British Coaling Stations Abroad, and of Colonial and Indian Defended Ports (1894)', TNA CAB 18/14.

¹⁰ *The Times*, 7 November 1884.

¹¹ W. Sydney Robinson, *Muckraker: The Scandalous Life and Times of W.T. Stead, Britain's First Investigative Journalist* (London: Robson Press, 2013), 64.

series of editions using the evidence of “one who knows the facts,” *The Truth About the Navy and its Coaling Stations* argued that naval power had been so depleted that Britain’s supremacy was at stake. Remarkably detailed, it totalled some sixty-four pages, and included maps, tables, and figures to illustrate Britain’s naval weakness. The articles demanded a better fleet and more protection for naval infrastructure, arguing that it was “the first and most pressing duty that lies before the Government.”¹² The *Pall Mall Gazette* was “a force to be reckoned with in British politics,” and its argument was broadly accepted, thus creating “a public furor, not based on substantive evidence, but on scandal-mongering alarmism,” although this hardly mattered because its effect was immense.¹³ That it was a leading Liberal newspaper that made its criticisms of Gladstone’s policy was especially damaging.¹⁴ The report had the desired effect, and it put the navy and coaling stations firmly back in the political, and public, eye. The resulting widespread coal consciousness placed immense pressure on Gladstone.¹⁵

There is little doubt where the data for Stead’s exposé came from—the article contained many of the same statistics, maps, and recommendations as Carnarvon’s reports. Yet their presence in the public domain meant that the Commission’s work was now able to establish the idea of naval weakness firmly in the public mind.¹⁶ The sheer weight of information they contained—figures and revelations informed by “one who knows the facts”—lent great credibility to the articles. The revelations caused a sensation in the press, and Stead was soon backed by other newspapers, notably *The Times*. Not only did the press reprint Stead’s

¹²W.T. Stead, ‘The Truth About the Navy and Its Coaling Stations by One Who Knows the Facts’, *The Pall Mall Gazette*, 15 September–13 November 1884.

¹³John Beeler, ‘In the Shadow of Briggs: A New Perspective on British Naval Administration and W.T. Stead’s 1884 “Truth About the Navy” Campaign’, *International Journal of Naval History*, 1, no. 1, (2002).

¹⁴Joseph O. Baylen, ‘Stead, William Thomas (1849–1912)’, *Oxford Dictionary of National Biography*, Oxford University Press, 2004; *The Pall Mall Gazette*, 22 September 1884; Dennis Griffiths, *The Encyclopedia of the British Press 1422–1992* (London: Macmillan, 1992), 453.

¹⁵The article particular to coaling stations was published on 16 October 1884.

¹⁶Beeler, ‘Steam Strategy and Schurman’, in Kennedy, Neilson, and Schurman (eds.), *Far-Flung Lines*, 37; Beeler, *British Naval Policy in the Gladstone-Disraeli Era, 1866–1880* (Stanford, CA: Stanford University Press, 1997), 265; Schurman and Beeler, *Imperial Defence*, 130.

claims, but many also employed their own experts to corroborate the facts.¹⁷ It is particularly telling, then, that despite the controversy he caused, Stead claimed that even after two months there had been “no refutation, official or otherwise.”¹⁸

Of course, these disclosures were a serious breach of government secrecy, much of it involving confidential documents about national security. Yet there seems to have been little clamour for reprisals. In fact, on the contrary, *The Times* suggested that:

the end may have justified the means, and, if... we can bring home certain plain facts to the mind of the country, disclosures otherwise impolitic may be condoned. Something at least has been gained. The question of increasing the Navy is to be considered; we are promised a measure of defence for certain coaling stations.¹⁹

With the majority of the popular press in an uproar, Gladstone found himself cornered and was forced to announce the government’s response to the Commission’s reports: a hastily prepared alternative policy based on the report of Clarke. Bound by the clause of confidentiality, Carnarvon could not directly compare Clarke’s piecemeal alternative with the original reports in Parliament even if by now the findings were common knowledge.²⁰ All Carnarvon could do in the Commons was to reject the proposals outright, yet even this small gesture was greeted by cheers in the House. With the damning reports in the public sphere, this was one more sign of a widening coal consciousness and a shifting opinion on imperial defence.

Gladstone may have managed to avoid ignominy in the debate after Carnarvon’s speech, but it was only a matter of time until the growth in popular coal consciousness and the wider shift in ideology away from his low-cost imperialism was made clear. The general increase in popular imperialism, which both accompanied and drove pro-imperial politics, heightened the criticism of Gladstone’s indifference to empire driven by

¹⁷ ‘Press Reaction’, *The Pall Mall Gazette*, 22 September 1884; ‘The Truth About the Navy’, *Morning Post*, 19 September 1884.

¹⁸ Stead, ‘The Truth About the Navy and Its Coaling Stations by One Who Knows the Facts’.

¹⁹ *The Times*, 7 November 1884; TNA, CO 323/357.

²⁰ *The Times*, 14 November 1884.

the growing public perception of the fragility of the empire, which had resulted from a number of events, fears, crises, and propaganda. This was, of course, in no small part due to the scandal caused by Stead, but it was worsened by the increasingly obvious fragility of the wider international political situation and Britain's perceived inability to impose itself on it. This was most evident in the disintegrating Ottoman Empire, in particular Egypt. Britain, it was believed, needed to assert its authority by force as a statement both to France and to rest of the world. The situation had become so serious that even Gladstone had felt compelled to intervene in Egypt in 1882; yet, in general, his detached foreign policy was becoming increasingly tarnished by attacks from not only the opposition but also from his own party.²¹

The ageing Prime Minister could only halt the tide for so long because there were already signs that the Liberal Party itself was diverging in its vision of imperial policy. Although it was the Irish question that eventually split the Party, the "coming men"—such as Sir Charles Dilke, Joseph Chamberlain, and the Marquess of Hartington—all leading figures in the Liberal government, were already advocating a "liberal imperialism" that was at odds with Gladstone's stance on colonial matters. Promoting a closer unity with the colonies, J.P. Parry suggests that these younger Liberals were increasingly "happy to play the imperial card."²² Of course, this "imperialism" was still at odds with that of expansionists such as Cecil Rhodes, and Chamberlain was keen to highlight the difference between imperialism and colonialism. Yet it still acknowledged that Gladstonian foreign policy was no longer seen as sufficient to sustain Britain's position. Carnarvon's recommendations could therefore gain cross-party support because the reports largely avoided the moral issues associated with the more aggressive imperialism witnessed with the concurrent "scramble for Africa." Indeed, improvements in imperial defence would have to play a crucial part if Britain was to achieve this liberal or "true" imperialism, which advocated a closer imperial union. These bonds relied on an understanding that the navy would protect Britain's colonial possessions, something that became clear from the Dominions' concerns aired at the Committee of Imperial Defence at the beginning

²¹ Parry, *The Politics of Patriotism*, 354, 367.

²² *Ibid.*, 369.

of the twentieth century.²³ Such a closing of ties was also a necessity if Britain was to achieve a safe coal supply in war because there was an obvious need for co-operation with the self-governing colonies in planning and implementing imperial defence.²⁴

Gladstone may have been facing criticism from imperial-minded Liberals within his own Cabinet, but the “Grand Old Man” still held great influence over government policy. Thus, although—even his ally the Earl of Kimberley had suggested—Gladstone was by now “really the sole obstacle,” it was not until the Conservative governments in the later 1880s that large-scale increases in naval and imperial defence occurred.²⁵ Yet this somewhat disguises the wider shift in imperial thought within the political class. Although the roots of a more proactive imperialism can be traced to the Disraelian Conservative Party, over time—and in light of a changing world and empire—it began to be accepted by many of those in the Liberal Party, especially by the mid-1880s. Gladstone’s attacks on “imperialism” and general ambivalence toward the empire that led to the association of the Liberals with anti-imperialism may have been particularly conspicuous, but in fact they were a “highly misleading” representation of the views of the rest of the party.²⁶ Instead, “by the final quarter of the nineteenth century, the complex and contested relationship between liberalism and imperialism had become all but unmanageable, exposing as never before the contradictions that cut through the Victorian empire.”²⁷ Older Liberals—such as Derby, Granville, and particularly Gladstone—may have rejected this, but these men were becoming what Parry describes as “busted flushes,” i.e., those who were out of touch

²³See, for example, Franklyn Arthur Johnson, *Defence by Committee: The British Committee of Imperial Defence, 1885–1959* (Oxford: Oxford University Press, 1960).

²⁴See Parry, ‘Liberalism and Liberty’, in Mandler (ed.), *Liberty and Authority in Victorian Britain* (Oxford: Oxford University Press, 2006), 72; Duncan Bell, ‘Empire and Imperialism’, in Gareth Stedman Jones and Gregory Claeys (eds.), *The Cambridge History of Nineteenth-Century Political Thought* (Cambridge: Cambridge University Press, 2011), 87.

²⁵Memorandum from Childers to Gladstone, 18 December 1884, cited in Parry, *The Politics of Patriotism*, 357.

²⁶Cain, ‘Radicalism, Gladstone, and the Liberal Critique of Disraelian “Imperialism”’, in Bell (ed.), *Victorian Visions of Global Order: Empire and International Relations in Nineteenth-Century Political Thought* (Cambridge: Cambridge University Press, 2007).

²⁷Dane Kennedy, ‘The Great Arch of Empire’, in Martin Hewitt (ed.), *The Victorian World* (London; New York: Routledge, 2012), 57–72.

with the progressive parts of their party. Although the presence of Gladstone was a significant obstacle, the relative dwindling influence of these older Liberals in imperial matters did mean that small but significant measures were taken for coaling-station defence after 1884.²⁸

Criticism may have centred on the government's stubborn adherence to low defence costs, which was directly linked to Britain's inability to address imperial worries, but in fact existing British commitments were taking an increasing toll on the treasury, particularly in the eastern Mediterranean.²⁹ In order to afford this, income tax was a third higher by 1885 than it had been under Disraeli in 1880. These increased costs, still far below those demanded by the government's critics, meant there was increasingly little faith in the ability of liberal economic values to provide international and commercial security and a growing sense of a need to reassess defence spending.³⁰ Indeed, there were few signs that Britain's global defence commitments would decrease. Instead, significant imperial tensions throughout the world suggested they would grow given the perceived Russian threat to India and the scramble for Africa precipitating a feeling that Britain needed to assert itself as a world power in order to keep its dominant position.³¹

Particularly damaging to Gladstone was the feeling that British prestige had been harmed by events such as the death of General Gordon in Khartoum in 1885, the blame for which the Marquess of Salisbury and his Conservative Party laid squarely at the Prime Minister's feet.³² These events had the cumulative effect of cementing an idea of imperial weakness in the public mind whilst leading the media to become suspicious of other European powers' imperial intentions, which shifted the focus away from Europe and into the wider empire.³³

The public outcry may have focused on global prestige and imperial security, but British foreign policy was based on protecting its global

²⁸ Parry, *The Politics of Patriotism*, 367–370.

²⁹ Ibid., 372.

³⁰ Parry, 'Liberalism and Liberty', in Mandler (ed.), *Liberty and Authority in Victorian Britain*, 99.

³¹ Parry, *The Politics of Patriotism*, 345–349.

³² Green, *The Crisis of Conservatism*, 61; Parry, *The Politics of Patriotism*, 360.

³³ See, for example C.A. Bayly, *The Birth of the Modern World, 1780–1914: Global Connections and Comparisons* (Oxford: Blackwell, 2004), 228–243; Parry, *The Politics of Patriotism*, 323, 355.

trade, which was the lifeblood of its economy and owned by powerful interests.³⁴ The great increase in maritime trade in the second half of the nineteenth century—which was crucial to the strength of Britain’s economy—made the need to control the sea for the purposes of trade, and therefore the navy, increasingly important.³⁵ Not only was it imperative that seaborne trade remained open and undisturbed to sustain Britain’s economy, but, because it relied on imported food, it was famously argued that Britain’s very existence hinged on this.³⁶ With Britain’s global hegemony perceived to be under threat, the full weight of powerful commercial interests—the so called “gentlemanly capitalists”—began to be felt over coaling-station defence.³⁷ As has been seen, commercial and shipping interests, such as Donald Currie, had held grave concerns about the coal question for many years, and these voices grew increasingly loud.³⁸ This uneasiness was only amplified by commercial interests seeking further naval protection as they looked to exploit the riches of the African interior that had been opened to trade in the 1870s.³⁹ The extensive connections between trade and government mean that it would be naïve to suggest that the personal interests of these “gentlemanly capitalists” in the defence of coaling infrastructure did not have an influence over politicians, particularly outside of Gladstonian Liberals. With approximately half of the Conservative Party having links with the military establishment by 1880, the influence of the armed forces should similarly not be discounted, and thus even many of those without links

³⁴Ronald Robinson, John Gallagher, and Alice Denny, *Africa and the Victorians: The Official Mind of Imperialism* (London: Macmillan, 1961).

³⁵Palmerston famously remarked that ‘it is the business of the government to open and secure the roads for the merchant’.

³⁶Jackie Fisher in 1904 exclaimed ‘If the Navy is not supreme, no army, however large, is of the slightest use. It is not invasion we have to fear if our Navy is beaten, it’s starvation!’ TNA, ADM 116/942.

³⁷See P.J. Cain, and A.G. Hopkins, *British Imperialism: Innovation and Expansion, 1688–1914* (London: Longman, 1993), 28–29.

³⁸Donald Currie, *Maritime Warfare: The Importance to the British Empire of a Complete System of Telegraphs, Coaling Stations and Graving Docks. A Lecture* (London: Harrison and Sons, 1877).

Many of these were also witnesses called by the Carnarvon Commission.

³⁹Parry, *The Politics of Patriotism*, 345.

to commercial shipping were influenced by those concerned about deficiencies in imperial defence.⁴⁰

Worries about imperial fragility may have frequently been (mis)interpreted as threats to the land-based empire, but the concerns of commercial interests show that maritime threats were inextricably connected to worries about British power. As a result, the adoption of *Jeune École* by the French navy, which explicitly looked to attack British commercial shipping, caused panic in the popular press and was exacerbated by erroneous rumours of a Franco–German naval alliance.⁴¹ With Stead’s revelations causing a national furore, it did not take much imagination to suggest that if France would look to attack undefended trading vessels, it would also look to attack undefended coaling stations, thus crippling the Royal Navy overseas. Even if these threats were wildly overstated, what appeared to be a direct and transparent threat to British trade and empire was successfully planted in the mind of many Britons. The idea that adequate protection for commerce from the Royal Navy could only be achieved with the proper defence of coaling stations, as outlined in the Carnarvon Commission, was therefore able to gain widespread acceptance.

As a result of these factors, coal consciousness had largely grown into a “coaling consensus” from the middle of the 1880s. For the first time, prolonged discussions about coaling stations, home ports, dockyard works, and ship-building featured in Admiralty board meetings during November 1884, thus marking a complete change in its attitude to coaling defence.⁴² Despite this, only small changes occurred before the Conservatives (now referred to as “Unionists” as a result of their association with the Liberal Unionists) returned to power in 1886. The majority it attained in the election allowed the government to pursue an imperial-defence policy that prioritised naval security over budgetary

⁴⁰Green, *The Crisis of Conservatism*, 66.

⁴¹Beeler, ‘Steam Strategy and Schurman’, in Kennedy, Neilson, and Schurman (eds.), *Far-Flung Lines*, 232; Roger Parkinson, *The Late Victorian Navy: The Pre-Dreadnought Era and the Origins of the First World War* (Woodbridge: Boydell Press, 2008), 103–105; Parry, *The Politics of Patriotism*, 356.

⁴²Hamilton, *The Making of the Modern Admiralty*, 177; Oliver MacDonagh, ‘The Nineteenth Century Revolution in Government’, in Peter Stansky (ed.), *The Victorian Revolution: Government and Society in Victoria’s Britain* (New York: New Viewpoints, 1973), 9.

control. This perhaps provided the defining moment for imperial defence and, indeed, the coal question itself.⁴³ Thereafter, even the Liberals in opposition were more imperial minded, with Gladstone finally coming to the end of a hugely influential career.⁴⁴

A COALING CONSENSUS

The re-elected Unionists under Salisbury tasked Lord George Hamilton with reforming the Admiralty, addressing the “chaos” left by the Gladstone ministry.⁴⁵ With an imperial-minded government in power, he was able to prioritise global naval need over budgetary control, thus allowing for a more efficient bureaucracy and enabling ambitious and expensive naval building projects to be planned and executed.⁴⁶ As part of this, he oversaw the growth of permanent naval committees—in 1879 there were just 3, but by 1899 there were 10—that allowed the Admiralty greater capacity to deal with specialist issues such as coal-ing.⁴⁷ Although these developments were important, the Admiralty’s ability to communicate the issues raised in its own committees to other government departments allowed real progress to be made. Here, the centralisation of government bodies in the late nineteenth century is crucial. Whereas previously, efforts to address the coal question had been complicated by the delays and inactivity caused by its interdepartmental nature, centralised committees helped to overcome these issues. In 1885, the formation of the Colonial Defence Committee, which was subsequently expanded and made permanent, largely provided the structure for intra-governmental dialogue, thus ensuring “a harmony of action and continuity of policy.” As well as providing representatives of relevant offices of government, its effectiveness was further improved by

⁴³Matthew Allen, ‘The Foreign Intelligence Committee and the Origins of the Naval Intelligence Department of the Admiralty’, *Mariner’s Mirror*, 81, no. 1, (1995), 74.

⁴⁴He was Prime Minister for eleven of the twenty years from 1868 to 1887.

⁴⁵Hamilton, *The Making of the Modern Admiralty*, 171; P. Smith, ‘Ruling the Waves: Government, the Service and Cost of Naval Supremacy, 1885–1899’, in P. Smith (ed.), *Government and the Armed Forces in Britain, 1856–1990* (London: Hambledon Press, 1996).

⁴⁶Hamilton, *The Making of the Modern Admiralty*, 36, 208.

⁴⁷*Ibid.*, 187.

the committee considering matters with expert opinion.⁴⁸ Furthermore, unlike the Carnarvon Commission, its permanent status crucially allowed the committee to look beyond coaling station defences as a temporary measure and to examine how those built in the wake of Clarke's report of 1883 could be expanded and improved.

Although the Colonial Defence Committee has subsequently been seen as a "pale forerunner" of the Committee of Imperial Defence, which replaced it in 1902, it was still an important, if small, step toward improving the co-operation between governmental departments and the self-governing colonies.⁴⁹ That is not to say that historians' criticism of the Colonial Defence Committee does not stand scrutiny. A heavy War Office majority did skew the focus of the body, and its work was less comprehensive and immediate than Carnarvon had recommended. Even so, the Colonial Defence Committee was largely responsible for both the planning and the completion of coaling-station defence before the end of the nineteenth century.⁵⁰

Also crucial was that the Conservatives, driven by the perceived threat to Britain's naval supremacy, ensured that the work of these committees was well funded. Although there had been some progress in the building of coaling defences through Votes of Credit, the Imperial Defence Act of 1888 ensured a permanent source of funds for these defences, which was enabled by the Conservatives restructuring the national debt in 1888.⁵¹ The Act sought "to provide for the completion without delay

⁴⁸'Measures taken in relation to Colonial Defence—Printed for 1887 Colonial Conference', TNA, PRO 30/6/131. This is not to be confused with the 1878 committee of the same name.

⁴⁹Burroughs, 'Defence and Imperial Disunity', in Porter (ed.), *The Oxford History of the British Empire*, Vol. 3: *The Nineteenth Century*, 335.

⁵⁰Schurman and Beeler, *Imperial Defence*, 134; 'The Report on the Defences of British Coaling Stations Abroad; and of Colonial and Indian Defended Ports (1894)', TNA CAB 18/14.

⁵¹These are discussed in some detail in 'The Report on the Defences of British Coaling Stations Abroad; and of Colonial and Indian Defended Ports (1894)', TNA CAB 18/14. See also Jon Tetsuro Sumida, *In Defence of Naval Supremacy: Finance, Technology and British Naval Policy, 1889–1914* (London: Routledge, 1993), 12–14; Lambert, 'Economic Power, Technological Advantage, and Imperial Strength'; M.J. Daunton, "'The Greatest and Richest Sacrifice Ever Made on the Altar of Imperialism': The Finance of Naval Expansion, c. 1890–1914", in Robert J. Blyth, Andrew Lambert and Jan Rüger (eds.), *The Dreadnought and the Edwardian Age* (Farnham: Ashgate, 2011), 31–50.

of the defence of the coaling stations abroad required for the use of Your Majesty's navy, and the speedy completion of the armament necessary for the above purposes."⁵² To accomplish this, it set aside a modest £2,600,000 for wide-ranging defence measures, which were largely completed by 1896.

The more famous Naval Defence Act was passed a year later in 1889, which put into law that the Royal Navy must maintain a number of battleships at least equal to the combined strength of the next two largest navies, the so-called "two-power standard." Although this has been seen as the defining naval act of the late nineteenth century, the protection of coaling stations through the Imperial Defence Act was a crucial partner because, as Carnarvon had stated in 1882, "no addition to the number and fighting power of your Majesty's ships will make up for the want of coaling-stations."⁵³ That these acts were both implemented reflects that by the late 1880s, naval strength had become inescapably connected with worries about imperial security. Moreover, coal had been recognised as an integral part of the ability of the navy to protect British interests. Such was its centrality of the findings of the Carnarvon to these measures that coal security became deeply entrenched within imperial defence rhetoric, and we see a "coaling consensus" developed.

This coaling consensus lasted beyond the end of the nineteenth and into the twentieth century with the presence of Salisbury as Prime Minister for over thirteen of the next seventeen years, thus guaranteeing a concerted imperial policy. As Prime Minister, he was almost the complete opposite of Gladstone, dominating foreign policy and profoundly absorbed by imperial matters. As a result of the wider ideological shift, there was a policy of continuity even with the return of the Liberal Party between 1892 and 1894, with the Earl of Rosebery as Foreign Secretary, marking the end of party politics in foreign policy in the nineteenth century.⁵⁴ The final abandonment of Gladstonian low defence spending by the Liberal Party was shown by the adoption of a new £31 million naval building programme in 1894, the so-called "Spencer programme,"

⁵²Imperial Defence Act, 1888.

⁵³'Summary of Carnarvon Reports', TNA, PRO 30/6/131.

⁵⁴Malcolm Pearce, and Geoffrey Stewart, *British Political History, 1867–1990: Democracy and Decline* (London: Routledge, 1992), 162.

which largely led to Gladstone's resignation and Rosebery's appointment as Prime Minister.⁵⁵ The Spencer programme was followed by the Naval Works Act in 1895, which looked to extend and construct new defences at principal ports of call for naval ships, for which £8.8 million was initially put aside; however, by 1901, the scope of the work had brought spending to £27.5 million.⁵⁶

By the turn of the century, with the first signs of the Anglo-German naval race emerging, a coal consciousness also became visible in the popular media. An article of 1898, published in the periodical *Nineteenth Century*, advocated the importance of coal to the power of Britain overseas. It declared that "coal is the source of [Britain's] commercial prosperity and the secret of our naval supremacy... coal is the first requisite of empire."⁵⁷ Perhaps looking to Britain's rivals, Germany and the USA, it declared that "a country may have the most powerful navy in the world, but if it be without coal it will be in the position of a man with a pipe and matches and no tobacco."⁵⁸ The same month, the Welsh newspaper *Western Mail* extolled the importance of "King Coal" to British interests overseas, suggesting that "the black diamond really sways the destinies of Empires."⁵⁹ This awareness also extended overseas. Recognising the value of both fuel and communication, the American magazine *National Geographic* declared that by the twentieth century, "a modern war between two naval powers has reduced itself largely to a war of 'coal and cables'".⁶⁰

COAL AND MOBILISATION

The coal question, as it emerged in the 1870s, primarily concerned how to ensure the security of coaling stations.⁶¹ By the late 1880s, however, there had developed a wider-ranging and more complex understanding

⁵⁵ *Ibid.*, 167.

⁵⁶ Roger Willock, *Bulwark of Empire: Bermuda's Fortified Naval Base, 1860–1920*, 2nd ed. (Bermuda: Bermuda Maritime Museum Press, 1988), 27.

⁵⁷ Archibald S. Hurd, 'Coal, Trade, and the Empire', *The Nineteenth Century*, November 1898.

⁵⁸ Hurd, 'Coal, Trade, and the Empire'.

⁵⁹ 'King Coal', *Western Mail*, 9 November 1898.

⁶⁰ George O. Squier, 'The Influence of Submarine Cables Upon Military and Naval Supremacy', *National Geographic Magazine*, Vol XII, no. 1 (January 1901), 1.

⁶¹ Interestingly, little is said about the security of the colliers delivering coal.

of the issue. In particular, the imperial crises and worries about Britain's place in the world had led to a reassessment not just of Britain's current places in global geopolitics but also of the situation regarding Britain's readiness for future geopolitical eventualities, including war. Whilst expanding the Royal Navy with state-of-the-art ships was an obvious solution to maintaining oceanic hegemony, this could only be effective if Britain was able to mobilise its navy at full strength. Similarly, ensuring the security of coaling stations and other strategic sites would be useless if they were not amply supplied in war. Yet ensuring that Britain, especially its navy, was prepared, should a declaration of war occur, was a mammoth task. The ability to mobilise the Royal Navy at full strength not only required physical measures to prepare the fleet but also a knowledge of the status and security of Britain's naval infrastructure as well as information on shipping and foreign navies.⁶² These requirements created a need to collect, collate, and analyse both British and foreign naval intelligence.

Calls in the 1880s for a specialised naval-intelligence department were largely because previous attempts to address the issue had mostly failed. Before 1882, naval intelligence was an ad hoc affair that relied on a couple of naval attachés and the reports of Royal Navy officers on hostile shipping. Whereas the War Office had created an intelligence department with a specialist staff in 1874, the Admiralty was slow to organise an intelligence division: the first proposal for one was made in 1879, some five years later.⁶³ The problems caused by this lack of a specialised naval-intelligence department were particularly shown during the Carnarvon Commission, which had to rely on intelligence from the War Office because the Admiralty was unable to provide any. Unsurprisingly, the reports suggested a need to reorganise naval intelligence.

It was this explicit recommendation from the Carnarvon Commission for the formation of a new, larger body to gather naval intelligence that led to the formation of the Foreign Intelligence Committee (FIC), which was formed in 1882.⁶⁴ Although such a specialist department represented

⁶²Allen, 'The Foreign Intelligence Committee and the Origins of the Naval Intelligence Department of the Admiralty', 65.

⁶³TNA guide to intelligence records, <http://www.nationalarchives.gov.uk/records/research-guides/intelligence-records.html>.

⁶⁴Allen, 'The Foreign Intelligence Committee and the Origins of the Naval Intelligence Department of the Admiralty', 66–68.

a recognition of the naval-intelligence issues faced by Britain, it largely failed to alleviate the paucity of data collected by the Admiralty.⁶⁵ Having dedicated intelligence roles—part of a wider specialisation of roles within the British state—was all well and good, but a lack of funding, which necessitated an attaché be withdrawn to run the body in London, meant that the naval intelligence situation had arguably worsened.⁶⁶ As a result, it did little to help solve the problems highlighted by Carnarvon. In fact, because of resources, the FIC had a very limited role, which in general consisted of reporting on the activities of other nations' fleets.⁶⁷

Such difficulties severely limited the Admiralty's ability to effectively plan for a naval war, thus creating a growing unease with the lack of available intelligence. Exacerbated by the 1885 Penjdeh Incident, in which Russia threatened part of Afghanistan at the height of the "great game," there emerged a "changing strategic environment which demanded new, more complex solutions."⁶⁸ The Royal Navy's immediate response was shambolic and confused.⁶⁹ Although peace was ultimately maintained, the Admiralty had to resort to ad hoc measures to mobilise the navy. With no plans for fuelling the fleet in place for such an emergency, coal had to be taken from the non-Admiralty suppliers, which, being of inferior quality, caused increased consumption and decreased performance of the fleet.⁷⁰

Alongside the damning Admiralty report into the war scare, more pressure grew when Russia launched a new class of armoured cruiser, which was ideal for commerce raiding, in the same year.⁷¹ It was against this backdrop in 1885 that the Junior Naval Lord Charles Beresford

⁶⁵Ibid.

⁶⁶Hamilton, *The Making of the Modern Admiralty*, 188; Allen, 'The Foreign Intelligence Committee and the Origins of the Naval Intelligence Department of the Admiralty', 69–71.

⁶⁷The FIC reports contain information on Germany, France, Egypt, Russia, Italy, Turkey, Korea, and Japan. Some report about defences of the Mediterranean and Australia but none specifically about coal. 'Reports of the FIC', TNA, ADM 231.

⁶⁸Allen, 'The Foreign Intelligence Committee and the Origins of the Naval Intelligence Department of the Admiralty', 65.

⁶⁹'Report of the Preparations Made by the Admiralty in Anticipation of an Outbreak of War in the Spring of 1885', TNA, ADM 116/3409.

⁷⁰Ibid.

⁷¹Beeler, 'Steam Strategy and Schurman', in Kennedy, Neilson, and Schurman (eds.), *Far-Flung Lines*, 37.

wrote to the Admiralty Board to register his concerns about this issue. The Pendjeh Incident, he argued, showed “the perilous absence of any plan or preparation for war, and the gravity and imminence of the danger which may result to this country from such a state of affairs.”⁷² Many of the ideas and recommendations contained in Beresford’s memorandum were not new at all. A similar memorandum had been produced in 1880 by Evan Macgregor, who at that time was serving as Head of the Military Branch in the Admiralty. This earlier paper concentrated on issues surrounding the protection of coaling and, in particular, whether gunboats should be sent in war to protect coaling stations. Pertinently, it also questioned the arrangements in place for the protection of commercial coal in the event of war.⁷³ Little seems to have come of this memorandum, however, and the fact that it is included with Beresford’s memorandum in the Admiralty files suggests it was shelved and ignored along with the similarly timed Carnarvon Commission reports.

Beresford’s memorandum somewhat alarmingly suggested that the scare had shown “what we should actually require ... in a war with a second-rate maritime power, [is] *over and above* what is now is now at our disposal.”⁷⁴ The problem, he suggested, went further than merely a question of supply. It was “incredible,” he argued, that unlike France, Germany, Russia, Austria, and Italy “no steps [had] been taken to organise or prepare any method or plan for showing how or where these *absolutely necessary* requirements are to be obtained [in war].”⁷⁵ A body needed to be set up, he argued, to ensure up-to-date preparations were in place for men, ammunition, coals, and provisions, especially because Britain, more than any other power, had such scattered and extensive possessions and trade routes to protect.

The memorandum identified key issues that currently existed with war mobilisation. Most alarmingly, there was no plan as to how Royal Navy ships might obtain coal in war or from where they could obtain it. There

⁷²‘Lord Charles Beresford’s Paper on War Organisation’, TNA, ADM 116/3106.

⁷³‘Evan Macgregor’s memorandum on Naval Mobilisation, December 1880’, TNA, ADM 116/3106.

⁷⁴‘Lord Charles Beresford’s Paper on War Organisation’, TNA ADM 116/3106. Author’s italics.

⁷⁵*Ibid.*

were no detailed lists of how much coal was stored at each station, both for use and as spare, or any details of where each station was supplied from or who the supplier was. To resolve these issues, and therefore to allow Britain to be fully ready to mobilise efficiently in the case of war, Beresford suggested a need for “framing a plan of naval campaign suitable for each station in the event of war with different countries.”⁷⁶ To deal effectively with such an increased workload, Beresford recognised there would need to be an increase in personnel specialising in intelligence at the Admiralty. Of course, there was already an intelligence body, the FIC, but he suggested it be greatly expanded to a staff of 13 people. In effect, it was a completely new body, and therefore, perhaps justifiably, he suggested it be renamed the Naval Intelligence Division (NID).⁷⁷

The report made little impression on the Admiralty, however, and once again Stead and the *Pall Mall Gazette* acted as a catalyst to change when the memorandum was leaked in October 1885.⁷⁸ It has been strongly suggested that the memorandum was in fact leaked by Beresford himself, although the Admiralty could not, or perhaps more accurately would not, find enough evidence to substantiate any claim against him.⁷⁹ As with the Carnarvon reports in 1884, the leak of highly confidential government documents did not bring any recriminations, and Beresford continued in his role. Instead, as intended, it sped up the process of the establishment of a more complete branch for naval intelligence as the FIC became the NID in 1887. The new body was able to diversify its scope, with new staff in specialist positions, and as part of this it was split into two divisions: Foreign Intelligence, and Mobilisation. This was of course only possible due to another significant change in British government policy: the ability for the Admiralty to access more governmental funds provided by the incumbent Conservative government.

However, the NID did not have the immediate effect that Beresford had envisaged. A perceived lack of trust in the new department prevented the Senior Naval Lords from delegating wider strategic issues to leave the NID to concentrate on routine tasks. This meant that when a

⁷⁶Ibid.

⁷⁷Ibid.

⁷⁸*Pall Mall Gazette*, 13 October 1886.

⁷⁹Allen, ‘The Foreign Intelligence Committee and the Origins of the Naval Intelligence Department of the Admiralty’, 72.

dispute between France and Italy threatened war in 1888, Britain still relied on foreign governments for intelligence.⁸⁰ Indeed, as Matthew Allen suggests, “a decade of reform had failed to address the basic intelligence gathering problem.”⁸¹ Where foreign intelligence was slow to improve, the Mobilisation Division showed more obvious signs of improvement including a proper consideration of coaling in war. The mobilisation of 1885 and the Jubilee Review of 1887 were followed by annual naval manoeuvres, which not only provided the navy with valuable mobilisation experience but also highlighted any flaws in Britain’s potential ability to wage a major maritime war effectively.⁸² By 1897, the press was reporting a clear plan of mobilisation and suggesting that Britain was “ready: aye ready!”⁸³

Monthly naval-intelligence meetings between the Naval Lords and the NID facilitated the communication of specialist knowledge, thus allowing issues of coaling in war to receive greater consideration by the later 1880s. This meant the concerns of the NID could be heard by the Admiralty Board, and if necessary, the Colonial Defence Committee; moreover, it allowed those bodies to receive assurances from the NID on Britain’s readiness for war.⁸⁴

LEGACY OF A COALING CONSENSUS

In the late 1880s, therefore, an emerging coaling consensus had helped to bring about measures to safeguard naval coaling by distinct changes in state bodies. Although the leaking of many of the details of the Carnarvon reports had accelerated the growth of coal consciousness, there still needed to be changes to the state in order to address its recommendations. A combination of the formation of two new bodies, the Colonial Defence Committee and the NID, and the discussion of wider naval issues by the Admiralty Board—and subsequently taking

⁸⁰Ibid., 74–75.

⁸¹Ibid., 75.

⁸²Ibid., 73–75. See also S.T. Grimes, *Strategy and War Planning in the British Navy: 1887–1918* (Woodbridge: Boydell & Brewer, 2012).

⁸³Stuart D. Gordon, ‘The Mobilization of a Man-of-war’, *Navy and Army Illustrated*, 9th July 1897, 108–109.

⁸⁴Hamilton, *The Making of the Modern Admiralty*, 185.

these issues to Cabinet level—allowed questions of coal to receive more attention from the government. Furthermore, the ability to analyse data efficiently and produce coaling knowledge allowed legislative bodies to implement schemes of defence, maintenance, and mobilisation.

By the 1890s, a coal consciousness had become a coaling consensus, and established bodies to solve the coal question were in place. It is pertinent, therefore, to enquire as to the legacy of these changes. The effect of the Naval Defence Act is well known: it caused spiralling building costs and a naval arms race. In fact, despite being a victory for the blue-water school of navalists at the time, it actually diminished Britain's relative numerical supremacy.⁸⁵ However, it is more difficult to assess the legacy of the Imperial Defence Act and thus the Carnarvon Commission and coal consciousness.

Even before the defences had been completed, the *New York Times* praised British coaling-station defence in 1892 as “amply garrisoned and defended” and as places of “actual political and strategic importance.”⁸⁶ By 1894, after several further revisions that incrementally increased costs, a report on the progress of the defences concluded that the works on the “coaling stations approved for execution [were], with one exception, practically completed as regards defence” Furthermore, the report still “urge[d] the construction, in time of peace, of the more important and necessary of the land defences for each coaling station.”⁸⁷

Nevertheless, even after such continual expenditure and with the benefit of hindsight, the general opinion had somewhat shifted. Although he supported the defence of principal stations and stressed a need for better steam and telegraph communication, C.H. Crofts suggested in 1902 that to have too many coaling stations was a weakness. Indeed, he proposed that the assertion of Captain Stone in 1889—that “the possession of naval arsenals, dockyards, and coaling stations must practically decide the question of naval supremacy”—had overstated their importance

⁸⁵Burroughs, ‘Defence and Imperial Disunity’, in Porter (ed.), *The Oxford History of the British Empire. Vol. 3, the Nineteenth Century*, 339; Paul M. Kennedy, *The Rise and Fall of British Naval Mastery*, 3rd ed. (London: Fontana, 1991), 193, 209; Parkinson, *The Late Victorian Navy*, Abstract, 161–162; Lambert, ‘The Royal Navy: 1856–1914’, in Neilson and Errington (eds.), *Navies and Global Defense*, 79.

⁸⁶*New York Times*, 6 March 1892.

⁸⁷‘The Report on the Defences of British Coaling Stations Abroad; and of Colonial and Indian Defended Ports (1894)’, TNA, CAB 18/14.

and stated instead that “their real defence is the existence of a supreme British navy.”⁸⁸ Likewise, Lord Brassey, in his naval annual, suggested that “in dealing with the coaling stations, it must be our guiding principle that we depend for the defense of the British Empire on our naval supremacy. If naval supremacy be lost, no local defences can be effectual to prevent the capture of the coaling stations by a powerful fleet.” However, “the power of reprisal is always in the hands of the stronger combatant, and the fear of retribution will be an eventual check.”⁸⁹ The 1911 *Encyclopaedia Britannica* echoed a similar sentiment when it asserted that “it is probable that they will play a somewhat less important part than has been assumed. A fleet which is able to assert and to maintain the command of the sea, will not find great difficulty in its coal supply.”⁹⁰

Although this seems damning, it is perhaps worth considering that by the early 1900s, Germany—whose operations were limited by few colonial bases—had replaced France as the main rival to Britain, thus explaining why British overseas bases had lost some of their importance.⁹¹ Indeed, Germany’s inability to challenge Britain across much of the world, and its subsequent concentration in Northern European waters, meant that Britain’s strategic priorities also had to be altered. This change necessitated that ships were withdrawn from the empire to bolster the home fleet. Thus, although coaling and docking facilities allowed Britain the potential to be hugely powerful globally, a lack of ship numbers in the wider world actually made Britain fairly vulnerable to surface raiders such as the *Emden* and the *Scharnhorst*. However, even with this weakness, Germany did not possess the infrastructure to sustain enough

⁸⁸Captain Stone, Paper read at United States Institute, January 1889. Cited in C.H. Crofts, ‘Naval Bases and Coaling Stations’, in Sir John Lubbock (ed.), *The Isle of Man, Gibraltar, Malta, St. Helena, Barbados, Cyprus, the Channel Islands, the British Army and Navy: Historical, Political, and Geographical History* (London: Kegan Paul, Trench, Trübner & Company, 1902), 200–203.

⁸⁹*New York Times*, 6 March 1892.

⁹⁰‘Coaling Stations’, 1911 *Encyclopaedia Britannica*, http://www.1911encyclopedia.org/Coaling_stations.

⁹¹There is much debate about when Britain came to view Germany as its main threat. The most convincing case is made by Seligmann, however. He also argues that Germany’s Atlantic liners, with their high speeds and relatively long range of operation, were a major threat to British trade. See Matthew S. Seligmann, *The Royal Navy and the German Threat 1901–1914* (Oxford: Oxford University Press, 2012), 1–6.

cruisers outside of European waters to cause Britain major problems. Instead, it had to rely on colliers sent on long-distance voyages and seizing neutral or enemy coal. Indeed, Britain's control over the naval coaling infrastructure, and its ability to deny the same to its enemies, still made it a formidable opponent in the wider empire as will be shown in Chap. 5.⁹²

As Britain avoided a major naval war in the period up to 1914, and even in war coaling stations faced few acts of aggression, it is difficult to assess how effective the defences might have been against concerted attacks from foreign cruisers. This is not because Britain's enemies failed to ascribe the same importance to these stations as Britain did, however, but because Britain's infrastructure allowed it to mobilise far more effectively overseas. With the works installed at these stations allowing the navy enough time to return and engage enemy ships, they were effective deterrents to raiding attacks. The legacy of these fortifications is more complex than just a case of examining enemy attempts to attack them, and therefore they should not be regarded as a later version of Palmerston's Follies.⁹³ Because the British imperial defence strategy rested on the avoidance of a major naval war, the fact that only one of Britain's overseas stations, the Falkland Islands, was attacked in such a lengthy period would suggest that they were somewhat successful as deterrents.⁹⁴ Although questions may be asked about the wisdom of several local defences in general, many of which were unimportant, Britain could not rely on the Royal Navy to defend these stations. Rather, in order to maintain control of the ocean, Britain needed a chain of bases to sustain the capability to mobilise worldwide.⁹⁵ Although the Franco-Russian cruiser threat was negligible, the perceived vulnerability of

⁹²G.M. Bennett, *Naval Battles of the First World War* (London: Penguin, 1968), 410–420; Robert K. Massie, *Castles of Steel: Britain, Germany, and the Winning of the Great War at Sea* (New York: Random House, 2003), 255. Sir Julian Stafford Corbett, *Naval Operations. Vol. 1, to the Battle of the Falklands, December 1914* (London: Longmans Green and Co., 1920), 243, 255.

⁹³Built after a Royal Commission in 1860 into the French-invasion scares of the 1840s and 1850s, these were hugely expensive. They were, however, largely obsolete by the time they were built. See Beeler, *British Naval Policy in the Gladstone-Disraeli Era*, 18–19.

⁹⁴Andrew Lambert, 'The Royal Navy and the Defence of Empire 1856–1918', in Kennedy (ed.), *Imperial Defence*, 117.

⁹⁵*Ibid.*, 115.

undefended coal, which was crucial to the functioning of the Royal Navy, meant that important considerations about an empire-wide strategy for defence were made for the first time. Furthermore, it is only with the decline of France and Russia as threats in the first decade of the twentieth century (both subsequently signed alliances with Britain) that the focus of a potential war shifted almost wholly to European waters.⁹⁶

CONCLUSIONS

The legacy of a coaling consensus was relatively short term, however, because it was limited by the decreased coal use in warships in the twentieth century. Just as a coaling consensus was reaching a high point, Britain had begun to experiment with oil as a fuel for the Navy as is discussed in the Epilogue.

The rise of coal consciousness did have less tangible, but arguably more important and enduring results, however. The permanent Colonial Defence Committee, appointed in 1885 by a government under growing pressure, has widely been seen to be the beginning of genuine imperial defence planning. It was an interdepartmental committee that relied on expert opinion, even if it was dominated by the War Office.⁹⁷ Furthermore, the Carnarvon Commission largely contributed to the formation of an (eventually) more effective Naval Intelligence Division in 1887.⁹⁸ Thus, the increase of coal consciousness not only helped to initiate proper communication between the Admiralty and other government offices with responsibility for imperial defence, it also that it raised questions that would lead to the establishment of a more effective administration for the management of imperial defence and intelligence.⁹⁹

Although progress was variable, by 1892 the *New York Times* declared that “with this enormous system under such splendid control, and with

⁹⁶Treaties and alliances with other powers such as Japan were also key.

⁹⁷‘Measures taken in relation to Colonial Defence—Printed for 1887 Colonial Conference’, TNA, PRO 30/6/131; Schurman and Beeler, *Imperial Defence*, 134; Brian Bond, ‘Introduction’, in Smith (ed.), *Government and the Armed Forces in Britain*, xv.

⁹⁸Allen, ‘The Foreign Intelligence Committee and the Origins of the Naval Intelligence Department of the Admiralty’, 67.

⁹⁹See, for instance Hamilton, *The Making of the Modern Admiralty*, 180.

new stations that are constantly being equipped and manned, the British Navy can never be reduced to [a] humiliating and embarrassing position.”¹⁰⁰ Even if some Admiralty officials and political figures remained convinced of British naval weakness, international opinion suggested that in terms of coaling infrastructure “as in all other matters of naval importance, Great Britain stands at the head.”¹⁰¹ After 1900, moreover, the bodies of government that largely dealt with coaling issues had further expanded. By 1902, the NID had doubled in terms of number of departments, adding divisions for War and Trade, and the Colonial Defence Committee was replaced by the Committee of Imperial Defence in 1902, which gained more importance in the first decade of the twentieth century. Thus, although the issue of coal protection would lose importance after 1900, the significant effects it had on imperial defence planning lasted far longer.

¹⁰⁰ *New York Times*, 6 March 1892.

¹⁰¹ *Ibid.*

PART II

‘An Enormous System Under Splendid
Control’: The Development of a Coaling
Infrastructure

Sourcing Coal for the Navy

The emergence of the steam navy not only precipitated a reassessment of Britain's geopolitical vision and defence strategy, it also raised complex logistical and infrastructural questions for the Royal Navy. As such, it is too simplistic to see the movement of steamships as dependent on a static network of coaling stations: Fuel did not simply appear at stations across the globe but was subject to multiple movements before arriving, being sourced, moved to ports, shipped, and unloaded.

Naval steam engines required coal and lots of it. Yet this could not just be any coal. The Admiralty insisted on fuel with particular characteristics: specifically, they required high-quality steam-coal that could provide the maximum amount of energy per ton, would not deteriorate badly when stored, and burnt cleanly to avoid clogging up warship engines. Furthermore, because naval steamships require a degree of stealth in battle, they needed a fuel that did not produce black smoke, thus making them visible for miles around. Therefore, selecting the correct coals for the navy was crucial to the effectiveness of warships in carrying out their duties. That this quality coal was required to be available around the empire in ever-increasing quantities exacerbated the difficulties experienced by the Admiralty, and responses to this created networks and infrastructures that became progressively more complex and robust.

This chapter explores how Britain chose, acquired, and transported this precious commodity for its navy. In doing so, it identifies the complexities, geographical differences, and changes over time evident across

the coaling infrastructure as well as how these threatened the robustness and efficiency of British naval coaling. The chapter begins in coal fields around the world and examines how the Admiralty sourced its fuel by performing extensive coal trials, produced lists of coal of sufficient quality to supply the Royal Navy, and drew up contracts to purchase this coal.

For the majority of this period, Welsh coal was the dominant fuel of the Royal Navy both at home and abroad. Before the 1880s, however, it was often mixed with other fuels. In local waters, northern coal was still used, and in the wider empire, coaling arrangements were more ad hoc. Although Welsh coal was used in all Britain's Atlantic naval coaling stations, including as far away as the Cape, a multitude of coals of differing quality were used at British naval stations well into the 1800s.

It was only with the rise of coal consciousness, as discussed in the last chapter, alongside advances in steamship technology, that this situation changed. Demand for coal increased further with the enlargement of the navy after the Naval Defence Act in 1889, and this was accentuated by the increased size, speed, and therefore coal consumption of warships. The Admiralty had held almost constant trials of coal local to foreign stations throughout this period, but this surge in demand led to a more serious consideration of sourcing coal from local sites.

Despite the exertions of the Admiralty, however, there was little success in finding new sources for naval use. This was because of a growing appreciation of the importance of quality coal for the effectiveness of the navy. Increasingly stringent standards for steam-coal used by the Royal Navy after 1880 meant that the amount of local coal used decreased amid fears about quality, and Welsh and Westport (New Zealand) coal dominated, even though shipments often had to be transported enormous distances. As a result of the dominance of Welsh and Westport coal, it is possible to see coaling infrastructure after 1882 largely as two sub-imperial networks that overlapped around the Cape, although it is important to recognise that Welsh coal still represented the majority of naval coal used.

Despite the need for large quantities of coal, the Admiralty, or the state, never owned nor invested in coal mines. Instead it acted as a "contractor state," relying on the commercial coaling sector, which massively outweighed its naval equivalent.¹ Not only did naval ships frequently

¹ See R.J.B. Knight and Martin Howard Wilcox, *Sustaining the Fleet, 1793–1815: War, the British Navy and the Contractor State* (Woodbridge: Boydell Press, 2010).

use commercial stations—indeed many coaling stations acted as both—private collieries provided the coal, commercial agents arranged and managed contracts to supply and transport it around the world, and commercial tramp ships delivered it to the stations. The Admiralty may have played a key role in selecting the most suitable fuel for naval warships, but in the processes involved in supplying it to its ships, it utilised existing commercial infrastructure and thus acting largely as an overseer.

SOURCING COAL FOR THE NAVY AT HOME

The early steam navy was fuelled largely by coal from the north east of England, in particular from Northumberland. Whilst this allowed the navy to use an established and reliable source of coal, the fuel was not ideal for naval use because it produced thick black smoke, thus enabling a naval warship to be seen from some distance by an enemy as well as making navigation treacherous.² This unsuitability led the Admiralty to sponsor trials on British coal for naval use from the 1840s onward.³ These trials were crucial to British global strength. As Andrew Lambert has pointed out, Britain was the only nation in this period that relied completely on seapower for maintenance of its economy, and thus it was imperative for the Admiralty to select the best fuel for the sake of performance to allow it to fulfil its global role.⁴

The specific qualities needed for naval coal were spelled out by the Admiralty in 1904:

A ship of war must be supplied, and must be kept supplied with a coal which will ensure the highest rate of speed and maintain the required radius of action. If you use a coal that burns quicker, without producing the same calorific effects and power, you would burn out the coal sooner

²Ibid., 29.

³An excellent account of these trials can be found in John Henry Morris and Lawrence Harding Williams, *The South Wales Coal Industry, 1841–1875* (Cardiff: University of Wales Press 1958), 34–41. A similar process of fuel testing occurred in the US (see Peter A. Shulman, *Coal and Empire: The Birth of Energy Security in Industrial America* [Baltimore: Johns Hopkins University Press, 2016], p. 45–52).

⁴Andrew Lambert, 'Economic Power, Technological Advantage, and Imperial Strength: Britain as a Unique Global Power, 1860–1890', *International Journal of Naval History*, 5, no. 2 (2006).

than you otherwise would, and the consequence would be that a ship instead of running her 10,000 knots at a certain speed, would be reduced probably to 8000 or 9000 knots.⁵

As well as calorific efficiency, the Admiralty also stated a need for a coal that had the qualities of “smokelessness, cleanness, hardness, free burning, minimum of ash and clinker, and that the coals will not cake or give trouble in stoking”.⁶

The mid-century trials found Welsh coal to be the best steam-coal for naval use as it produced “an exceedingly hot and smokeless fire rendering raking unnecessary, thereby economizing on labour for stoking,” took up less bunker space per unit of energy output, was less susceptible to oxidising—and therefore deteriorating—even in warm climates, and was also less susceptible to spontaneous combustion.⁷ Coal from northern England not only proved less satisfactory in terms of power and smoke, but Wales also had superior port facilities and more direct rail access between pit and port, thus making Welsh coal more economically viable and efficient for naval use.⁸ South Wales had been providing small but important amounts of coal as early as the 1830s, in particular for government steam packets; however, after these trials it was generally preferred from the 1850s onward for Admiralty use.⁹

⁵British Parliamentary Papers, 1904 [Cd. 1991] *Royal Commission on Coal Supplies. Second report of the Royal Commission on Coal Supplies. Vol. II. Minutes of evidence and appendices*, 143–155.

⁶*Ibid.* Clinker is the stony residue from burnt coal.

⁷Morris and Williams, *South Wales Coal Industry*, 34–40; R.A. Church, Alan Hall, and John Kanefsky, *The History of the British Coal Industry. Vol. 3, 1830–1913: Victorian Pre-Eminence* (Oxford: Clarendon, 1986), 33; Robert Wilson, ‘Fuelling the Steam Navy: Naval Coal Supplies from Comet to the Carnarvon Commission’ (MA Dissertation, Exeter University, 2010), 31, 54; D.A. Thomas, *The Growth and Direction of Our Foreign Trade in Coal. During the Last Half Century: Read before the Royal Statistical Society, 19th May 1903, and Extracted from the Issue of the Society's Journal for Sept. 1903* (London: Royal Statistical Society, 1903), 51. The reasons why, at a molecular level, Welsh steam coal was most suitable are shown in *Appendix 1*.

⁸Morris and Williams, *South Wales Coal Industry*, 24–29, 34–40; Wilson, ‘Fuelling the Steam Navy’, 29; British Parliamentary Papers, 1845 [600], *Coal, &c. (Navy). Warlick's patent fuel*.

⁹188,507 of 249,527 tons of coal bought by Admiralty was Welsh in 1859, some 75.5%. See Morris and Williams, *South Wales Coal Industry*, 24, 28, 34–40; Wilson, ‘Fuelling the Steam Navy’, 29; British Parliamentary Papers, 1845 [600], *Coal, &c. (Navy). Warlick's patent fuel*.

Despite the clear evidence of these early trials, when nearly all statistics produced showed that Welsh coal was superior for naval use, the 1850s did not represent the end to the supply question: There were at least twenty one trials of domestic coal between 1847 and 1879.¹⁰ These trials were not, as has been suggested, due to dissatisfaction with Welsh coal as a naval fuel but reflected the complexities of the mid-nineteenth century politics of defence spending.¹¹ As has already been explored, the mid-Victorian liberal consensus on overseas defence led to attempts to cut naval estimates, and Welsh coal was generally considerably more expensive than any other. Thus, what became known as a “Baxter” mixture of coals became preferred, which added the cheaper northern coal to the dearer Welsh variety. It was so named because it was championed by William Baxter, the Secretary of the Admiralty appointed by Gladstone. This mixture also satisfied the owners of northern collieries, who, faced with losing the largest single purchaser of steam-coal, continued to demand trials of their coal against Welsh.¹²

There were also sound strategic reasons for continuing to test fuels. Avoiding reliance on one source of fuel was wise, especially when one considers the unpredictability of coal mining. Not only were seams of steam coal in mines used by the navy finite, new collieries and deeper excavations at existing sites could produce better coal, and it was in the Admiralty’s interests to source as much high-quality coal as possible. This allowed them to ensure a long-term supply of coal for an ever-expanding fleet and to negotiate lower prices for fuel. It also diminished the effects of any widespread strike action.

The use of these mixtures may have made an enormous amount of strategic sense, saved money, and appeased the owners of northern collieries, but complaints from overseas stations about its poor efficiency and dirty burning meant that the Admiralty swiftly returned to using

¹⁰Twenty-one are recorded in Parliamentary Reports, see Wilson, ‘Fuelling the Steam Navy’, 31.

¹¹Wilson, ‘Fuelling the Steam Navy’, 31.

¹²Warwick Michael Brown, ‘The Royal Navy’s Fuel Supplies 1898–1939: The Transition from Coal to Oil’ (PhD Thesis, King’s College London (University of London), 2003, 13; R.H. Walters, *The Economic and Business History of the South Wales Steam Coal Industry, 1840–1914* (New York: Arno Press, 1977), 313. Walters does not give a date for when the Admiralty was the largest single purchaser of steam coal, however.

Welsh coal alone.¹³ There were important operational reasons for this reversion because the use of a single fuel type allowed captains to have full confidence in the performance of their ships: the use of Welsh coal ensured that engines could operate at full capacity. Furthermore, British warship engines were designed for Welsh coal, and thus using it was also better for the maintenance of ships' engines because no furnace existed that could use all types of coal, and mixing fuels could damage the mechanisms.¹⁴ Although cost was clearly a consideration for the Admiralty when selecting coal, after the abandonment of mixtures it did not usurp suitability as the primary criterion. Thus, by the 1880s, Welsh coal was the sole British coal in use for the warships of the Royal Navy under normal circumstances.¹⁵

THE ADMIRALTY LIST

Whilst in correspondence, the preferred fuel is referred to as "Welsh" (or, confusingly, sometimes "English"), this of course did not refer to any coal emanating from Wales. The coalfields of the south of the country span vast areas, are not homogenous, and produce different types of coal suitable for many different tasks. As such, not all South Wales collieries produced coal that was appropriate for naval use. As a result, the Admiralty differentiated those collieries deemed to produce coal of a sufficient quality by their presence on what became known as the Admiralty List, which was in place by the 1840s.¹⁶

For a colliery to be added to the Admiralty List, its coal had to go through several exhaustive stages of testing. Although these contained many specific measurements, equally important were the remarks of the testers about the suitability of the fuel. First, the coal being tested was sent to Portsmouth for burning in a specially constructed boiler. From this, engineers assessed its general suitability for naval purposes and made a recommendation to the Engineer-in-Chief as to whether further tests

¹³Morris and Williams, *South Wales Coal Industry*, 39.

¹⁴British Parliamentary Papers, 1904 [Cd. 1991] *Royal Commission on Coal Supplies. Second report of the Royal Commission on Coal Supplies. Vol. II. Minutes of evidence, and appendix*, 143–155.

¹⁵Although coal prices fluctuated enormously during this period, Welsh coal appears to have always been more expensive.

¹⁶Morris and Williams, *South Wales Coal Industry*, 29.

should be undertaken with a warship. If found to be satisfactory after further testing with ships in the wider fleet, the colliery was added to list. Because the Admiralty was constantly trialling new coals, this process was carried out on many coals including mixtures of different types of coals.¹⁷

For a colliery to be “on the Admiralty List,” its coal had to be deemed of sufficient quality by these tests, but this did not always mean that it actually supplied much or any coal to the navy: It was merely recognised as having that capability should the need arise. Despite this, the arduous process of being listed was justified from the commercial advantage bestowed upon those collieries. As the highest accolade possible for a steam-coal colliery, being on the list became as much a marketing device for the collieries as it was a useful tool for the Admiralty.¹⁸ This could, and did, have huge effects for the success of these companies.¹⁹ Conversely, the failure of northern collieries to gain significant contracts from the navy not only affected them directly through the lack of Admiralty sales, it also had a detrimental effect on commercial sales; which helps explain the continuing requests for further coal trials.²⁰

Whilst Welsh Coal dominated the Admiralty List, this did not mean the situation was static. Instead, the list was constantly being updated, with continuing trials of new coals, which, if found to be suitable, would be ordered the following year.²¹ Even so, the list did not grow as quickly as might be expected, even though it was rare to take collieries off the list unless there was a fall in quality.²² This lack of growth in collieries on

¹⁷Walters, *The Economic and Business History of the South Wales Steam Coal Industry*, 313.

¹⁸See adverts in trade journals, for example, *Colliery Guardian*; *Colliery Engineer*; *Engineering: A Weekly Illustrated Journal*; *Cardiff South Wales Journal of Commerce*.

¹⁹For example, Aberdare. See Morris and Williams, *South Wales Coal Industry*, 107.

²⁰See, for example, ‘From Week To Week’, *Newcastle Weekly Courant*, 25 May 1889.

²¹Andrew Philip Barnett and David Willson Lloyd, *The South Wales Coalfield* (Cardiff: Business Statistics, 1921), 22, 66–71, 72–77, 94–99, 102–105; ‘Welsh Coal for the Navy’, *Western Mail*, 19 June 1889.

²²British Parliamentary Papers, 1904 [Cd. 1991] *Royal Commission on Coal Supplies. Second report of the Royal Commission on Coal Supplies. Vol. II. Minutes of evidence and appendices*, 143–155. In 1905, there were 24 Welsh collieries from which the Admiralty obtained coal directly, and a further 2, from which it did so indirectly. Yet, despite demand growing, by 1913 only 5 collieries had been added with 31 types of Welsh coal on the Admiralty List. *The Times*, 31 March 1909; *South Wales Coal Annual* (Cardiff, 1903), 280.

the list not only illustrates how demanding Admiralty standards were, it also reflects the fact that colliery ownership was being consolidated with 80% of steam-coal being produced by twenty collieries by 1900. In fact, the South Wales coal industry, which dominated the naval supply, was virtually closed to newcomers in the period 1870–1914.²³

Welsh coal was not only accepted as the most suitable fuel for the Royal Navy, it was considered more widely to be the world's best for naval use. Indeed, its status was confirmed by how widely it was used outside of Britain's domestic coaling stations and, indeed, outside of Europe. Welsh coal could be bought at commercial stations as far away as Buenos Aires, Mauritius, and Port Saïd as well as most stations in between.²⁴ Although commercial lines would often use the cheaper local fuel at some of these stations, because economy was more important to these firms than clean emissions and speed, Welsh coal was also the preferred fuel of the majority of the world's navies. Indeed, it was often highlighted during war scares that Wales was providing coal for the navies of France, Russia, and Germany.²⁵ The widespread naval use of Welsh coal was promoted by the collieries, and adverts in coal journals of the 1890s show that they were as keen to emphasise the use of their coal in foreign navies as they were about being on the Admiralty List: Nixon's Navigation coal was "supplied to the Russian, German, Austrian, Italian, Swedish, Dutch and Egyptian governments for royal yachts and special naval purposes"; A. Tylor & Co. supplied the Italian government; and Hill's Plymouth Merthyr was on "the English, French, Italian, and Spanish Governments' lists."²⁶ This supply of high-quality coal to many of Britain's maritime rivals may have been derided as careless at best, but it actually gave Britain a strategic advantage if managed correctly. With the commencement of hostilities, the government could easily cease the

²³M.J. Daunt, *Coal Metropolis: Cardiff 1870–1914* (Leicester: Leicester University Press, 1977), 59–61, 68.

²⁴Appendix Xi: Price And Conditions Of Supply Of Coal At Various Coaling Ports For The Year 1912. Cited in Adam Willis Kirkaldy, *British Shipping: Its History, Organisation and Importance* (London: K. Paul, Trench, Trübner & co, 1967).

²⁵See, for example, *The Times*, 22 February 1910; *Morning Post*, 16 July 1900; *North-Eastern Daily Gazette*, 25 January 1893; *Sheffield & Rotherham Independent*, 3 January 1893; *The Times*, 14 December 1908; *The Times*, 19 September 1913; *The Times*, 2 September 1913.

²⁶*Progress Commerce*, vols 64–65, 1893; *Almanack*, vol. 285, 1895.

export of fuel to these navies—with both collieries and shipping firms in British hands—thus necessitating an enemy to find alternative sources of coal in a wartime situation. Such was the control Britain held over quality fuel worldwide that any other coal would almost certainly be sub-standard and supply unreliable.

Despite a huge growth in naval coal use in this period, as well as worries about reliable supply in war, the Admiralty did not deem it sensible to purchase collieries itself, instead preferring contractors as it did with many of its other supplies. This can be explained by several factors. To found a colliery required considerable initial capital, something not prevalent in tight defence budgets. Furthermore, collieries were an inherently risky investment and could be immensely costly for little reward if only limited amounts of quality coal could be found. By purchasing from multiple collieries, the Admiralty avoided this risk as it could discontinue the supplies from any colliery providing sub-standard coal. It is also worth considering that, despite being the largest purchaser of steam-coal, Admiralty demands for coal were relatively small: fuel for naval use represented only one thirtieth of total Welsh production.²⁷ Furthermore, because of its regular demand and shipments, the Admiralty could gain discounted rates from many of the collieries. Indeed, purchasing from existing collieries held many benefits for the Admiralty, not the least that they could pass on any significant financial risk to the company as well as utilise their existing infrastructure and expertise.

CONCERNS ABOUT WELSH COAL

Welsh coal may have been widely regarded as the best steam coal, as well as the undisputed choice of the Royal Navy by the last two decades of the nineteenth century, it was not without issues. The deterioration of the coal, especially at tropical stations, although not as drastic as other varieties, was still of particular concern. One potential solution seemed to be the development of patent fuel, which was specifically designed to deteriorate more slowly than coal, even in the tropical climate of many of Britain's overseas stations. This made it more suitable for long-term

²⁷ British Parliamentary Papers, 1904 [Cd. 1991], *Royal Commission on Coal Supplies. Second report of the Royal Commission on Coal Supplies. Vol. II. Minutes of evidence and appendices*, 143–155.

storage, even in the open. Named for the fact it was under patent in the late nineteenth century, it was formed by binding together coal fines (which were often Welsh in origin) to produce regular briquettes. This improved the efficiency of loading fuel allowed more fuel to be taken on board and made it cleaner to work with than standard coal because it produced far less dust. Furthermore, coal that was too small to be used as steam-coal could be used to make patent fuel, thus making use of what was otherwise a waste product.²⁸ These advantages led to it being trialled from 1877 on the West African Station, and by 1881 it was deemed to be of sufficient quality to be brought into standard circulation.²⁹

In operational use, however, it proved to be less suitable for warships: problems with the way the fuel burnt meant that it produced large amounts of clinker. Furthermore, although it did not deteriorate as badly as Welsh coal did in tropical climates, it was still seen as producing inferior power even compared with deteriorated coal. It also reportedly caused blisters and severe eye irritation to those who worked with it, which—considering the very manual nature of loading and stoking coal—was a serious issue. Thus, by 1888, it was largely abandoned.³⁰

Despite this failure, the potential advantages of an improved patent fuel were enough for the Admiralty to continue testing. This persistence brought reward, and by the turn of the century the patent fuel mix had been improved considerably. Claims that it no longer adversely affected stokers may have been overplayed, however, as those handling the fuel were supplied with goggles, Vaseline, and gloves to protect their eyes and skin. Moreover, production costs made it more expensive than Welsh coal. These factors meant that patent fuel was purchased not to replace the use of Welsh or other coal, but as a reserve fuel at foreign stations where it could easily be used in war or emergency should suitable coal

²⁸British Parliamentary Papers, 1905 [Cd. 2353], *Royal Commission on Coal Supplies. Final report of the Royal Commission on Coal Supplies. Part I. General report*, 10, 21.

²⁹“Coal fines” refer to particles with a maximum size usually less than one-sixteenth of an inch and rarely more than one-eighth of an inch. The process was one that had been widely used for railways for some time, and its use for naval vessels had been established by the French Navy. British Parliamentary Papers, 1904 [Cd. 1991], *Royal Commission on Coal Supplies. Second report of the Royal Commission on Coal Supplies. Vol. II. Minutes of evidence and appendices*, 143–155.

³⁰“Correspondence with Fernando Po, St. Helena, Simon’s Town, St. Paul de Loanda (Angola)”, TNA, ADM 123/110.

supplies be difficult to come by.³¹ Thus, those stations at a considerable distance from Britain kept between six and nine months' worth of patent fuel in storage.³²

With the failure of patent fuel to absorb much of the strain on Welsh coal, worries about Britain's over-reliance on one source of coal persisted, especially when the increasing price of Welsh steam-coal meant that by the end of the 1880s it was significantly greater than that of others. This coincided with the passing of the Naval Defence Act at the end of 1889, which not only greatly increased warship numbers but also steam-coal consumption. In response, the Admiralty continued to experiment with different coals, mixtures of coal, and a mixture of coal and oil. Yet, despite this dedicated search for new sources of coal, in 1889, a delegation of interests from the northeast to push for more sourcing from their region was rebuffed by the First Lord of the Admiralty, Lord George Hamilton.³³ Favouring performance over economy, he suggested that practical experience had proven that Welsh coal alone was the only suitable domestic fuel for the navy. This was due to the "special duty and work which the Navy is called upon to perform."³⁴ This point of view reflected earlier reports from Admirals on foreign stations. Writing from the Baltic, Admiral Napier had commented: "send me out Welsh coal, or I cannot be responsible for the safety of the fleet."³⁵

It was not just northern coal that was deemed of insufficient quality for the navy: despite almost constant tests, the Admiralty found no domestic or local fuel that they considered to be equal to Welsh coal. Such conclusions highlight the difference between the fuel needs of the navy and those of most other steamship companies. By 1905,

³¹'Patent Fuel', TNA, ADM 116/573; British Parliamentary Papers, 1905 [Cd. 2353], *Royal Commission on Coal Supplies. Final report of the Royal Commission on Coal Supplies. Part I. General report*, 10, 21; 'Substitute For Coal', *Sheffield & Rotherham Independent*, 21 May 1900. Shipments to naval stations were still a fraction of the amount of total patent fuel being exported from South Wales: For example, Gibraltar imported 3,686 tons, Simon's Town 2,510 tons, and Esquimalt 2,300 tons from a total of around a million tons. See *South Wales Coal Annual*, (Cardiff, 1903), 186–203; 'Letter from Admiralty to Commanders in Chief at home and abroad, 21 August 1901', TNA, ADM 125/56.

³²'Steam Vessels at home and abroad 1879/80', NMM, MLN/163/4 [5].

³³'Welsh Versus North Country Coal', *Western Mail*, 16 May 1889.

³⁴*Ibid.*

³⁵Speech of Mr Fothergill, House of Commons Debate, 29 July 1870, *Hansard*, vol. 203, cols 1196–1203.

commercial shipping companies, such as P&O and the Royal Mail Steam Packet Company, had shown that improved engine technology that using northern coal more habitually on their ships could cut fuel costs without hugely detrimental effects on performance. Yet the Royal Navy, which needed its vessels to always be able to perform at optimum levels and with minimum black smoke, did not have this luxury and was therefore largely wedded to Welsh steam-coal. Thus, although there was a general decrease in the use of Welsh coal at foreign commercial coaling stations, the Admiralty, along with some liner companies, continued to rely on it beyond the First World War.³⁶

SOURCING COAL FOR THE NAVY ABROAD: UP TO THE 1880s

British naval ships did not always use Welsh coal overseas, especially before the 1880s. Whilst it remained the most used, where “the hinterland of the station had its own deposits of coal with which the station could be supplied,” local coal was used by the navy to varying extents often in mixtures with Welsh or northern coal.³⁷ Indeed, coal existed throughout the empire with reserves existing in Australia, New Zealand, Canada (particularly in Nova Scotia and Vancouver), South Africa (Natal), Borneo (Labuan), and Bengal.³⁸ Furthermore, countries where the navy habitually coaled, such as China and Japan, had their own sources of coal. By the mid-century, the Admiralty had begun a period of what Daniel Owen Spence has described as “Coal-onialism” with officers gathering specimens of coal local to existing stations for testing in steam engines.³⁹

Few of those tested were suitable for naval use, however (see Table 4.1). Uncertainties about the quality of overseas coal meant that in the period before 1880, the Admiralty had no uniform coal-sourcing strategy at foreign stations. Instead, for each individual station the

³⁶Walters, *The Economic and Business History of the South Wales Steam Coal Industry*, 323; Thomas, *The Growth and Direction of Our Foreign Trade in Coal During the Last Half Century*, 55–56.

³⁷Wilson, ‘Fuelling the Steam Navy’, 30.

³⁸Daniel R. Headrick, *The Tools of Empire: Technology and European Imperialism in the Nineteenth Century* (Oxford: Oxford University Press, 1981), 175.

³⁹Daniel Owen Spence, *A History of the Royal Navy: Empire and imperialism*– (London: I.B. Tauris, 2015), 39–40.

Table 4.1 Table showing native coals found local to British naval stations as well as which coals were actually used by the Royal Navy in the years 1882–1883. Data compiled from “Steam Vessels at home and abroad 1881–1882 and Steam Vessels at home and abroad 1882–1883,” NMM, MLN/163/4 [10] and [11]. The majority of these were abandoned in the 1880s. Station divisions are taken from these documents

<i>Station</i>	<i>Local coals (non-British) available</i>	<i>Remarks</i>	<i>Coals used</i>
Mediterranean	Heraclea coal: near Constantinople	Used in Crimean war: too much sulphur and produced much ash	Solely Welsh at Malta and 2/3 Welsh + 1/3 North Country elsewhere
Cape	Steelpoint Valley: Transvaal	Too much ash	
East Indies	Zanzibar	Too much ash	
China	Labuan	Contract to supply for 42 years, but mines were flooded and had financial difficulties	2/3 Welsh + 1/3 Takasima
	Takasima	From 1882 to 1883 used in preference of Northern or Australian 1/3 to 2/3 Welsh	
	Formosa	Could be used in emergencies	
	Australian	Bulli used until 1876, 1/3 Newcastle used with 2/3 Welsh coal from 1876 to 1879	
North America	Baltimore	Used from 1873 to 1875, liable to self-combust	At Halifax 2/3 Welsh + 1/3
	Pictou	Used for three years at all stations; mixed with 2/3 Welsh; only used at Halifax after 1876	Pictou; elsewhere 2/3
Pacific	Nanaimo	No Welsh coal sent for years	Welsh + 1/3 North country
			Solely Nanaimo used at Esquimalt
Australia	Newcastle/Illawara	Only station where Australian coal was used	Australian

Admiralty relied on the relevant Commander-in-Chief to source and assess local coal for naval use. This resulted in different arrangements for fuel at different stations. Those stations with wholly unsuitable coal were shipped the same Welsh and northern mixture used at home stations.⁴⁰ At the commercial stations used by warships, the navy used the best coal that was available at the time. However, where coal was deemed to be suitable, this led to the use of local coal alone; at others, a mixture of local and Welsh or northern coal was used.

At European stations, largely on existing collier routes, it was both easy and comparatively inexpensive for the Admiralty to organise stacks of Welsh coal for naval use even if it was still more expensive than most other coals. Beyond Europe, and particularly beyond the range of normal export for Welsh coal, coal was both more expensive and complex to organise. As such, when the Australia Station, which was so distant from the Welsh coalfields, was founded in 1859, it was unsurprisingly decided that unlike most other stations it was to be largely self-sufficient in terms of coaling warships. This was despite the fact that trials against English and Welsh coal in 1858 to 1859 had given underwhelming results. However, as long as Australia remained a fairly unimportant station, distant as it was from Britain and posing potential danger, the lower quality of the coals received little attention. Furthermore, trials by the War Office suggested that better-quality coal had been found in 1867, but even then it was only seen as equal to the best Newcastle coal.⁴¹

Despite the enthusiasm from the War Office, coal sourced from Australia was not without its problems. Newcastle, located in New South Wales (NSW), emerged as the main coaling port, but its local coal was dirty and burnt too quickly and at too high a temperature for naval use. Coal from south of Sydney—known as Wollongong, Bulli, or Illawara—was said to resemble the coal of South Wales, being slow and cleaner burning, but although it was used by the American and Australasian Company, it did not burn at a high-enough temperature to produce

⁴⁰See for instance the use of Labuan coal. British Parliamentary Papers, 1851 [428], *Eastern Archipelago Company. Correspondence between Rear-Admiral Austen and others with the Admiralty, respecting the supply of coal by the Eastern Archipelago Company*, 1–12.

⁴¹‘Untitled Memorandum’, TNA, ADM 122/22; John Bach, *The Australia Station: A History of the Royal Navy in the South West Pacific, 1821–1913* (Kensington, NSW: NSW University Press, 1986), 220. Some of the trial data and reports can be found in Cambridge University Library, Jardine Matheson Collection, JM L3/5.

the requisite power for warships to attain necessary high speeds. As a result of this, even some steamship companies, such as P&O and the Australasian Steam Navigation Company, avoided southern Australian coal and instead used Newcastle NSW coal mixed with Welsh coal.

Although the quality of this coal had raised few complaints as the fuel for this small station, it became problematic in 1873 when its use was extended to other stations. Realising (perhaps belatedly) that “no supplies of fuel have been sent from England for [the Australia Station’s] use,” the Liberal government argued that “it seems reasonable to infer that coal which would efficiently serve them in Australian waters, could also serve them in Chinese and Indian waters.”⁴² There was little secret that this was solely to decrease naval estimates, and the Admiralty ceased the expensive export of Welsh and Northern coal to China and replaced it with Australian coal.⁴³

Unlike the Australian Station, however, the China Station was one of the most strategically important fleets. Furthermore, ships stationed there had to deal with the difficult conditions caused by the annual monsoon, and thus fuel quality was a far more important matter. Unsurprisingly, then, complaints about the change from Welsh to Australian coal were instantaneous, and the Newcastle coal sent in the first shipment to the China Station reportedly increased consumption to a third greater than when using Welsh coal, coked the ships’ tubes with soot, and deteriorated badly in storage.⁴⁴ These complaints meant that later shipments were not of Newcastle coal but of Bulli and Wollongong from the south of Sydney, which the Admiralty insisted was far superior.⁴⁵ Complaints continued from the China Station, however, and the Admiralty eventually conceded that a mixture between the high-power and slow-burning coal, in a ratio of one third northern NSW to two thirds southern NSW, would be preferable to the existing

⁴²‘Letter from Admiralty to China Station, 10 January 1873’, TNA, ADM 125/22.

⁴³‘Letter from Admiralty to Australia Station 10 January 1873’, 10 January 1873, TNA, ADM 122/22; ‘Coal For The Royal Navy’, *Huddersfield Daily Chronicle*, 20 May 1873. The Admiralty contracted the Australian coaling agents Messrs. Parbury Lamb & Co. to supply Australian coal to the China and East India Station to send 11,000 tons of New South Wales coal on a set timetable.

⁴⁴‘Document enclosed with Admiralty to Admiral Ryder 5 September 1874’, TNA, ADM 125/22.

⁴⁵‘Letter from Admiralty to China Station, 25 August 1874’, TNA, ADM 125/22.

arrangement. The instructions sent with the coal as to what mixture was preferable were confusing, however, and the resulting mixture proved unsatisfactory.⁴⁶

By the mid-1870s, the Admiralty eventually admitted that Australian coal was significantly inferior to Welsh. In view of the difficulty of supplying Welsh coal to the station in war, however, there appeared to be little option for the China Station but to use Australian coal because indigenous coal had proven unsatisfactory.⁴⁷ Indeed, despite exhaustive trials, no other coal had been found locally that could compare even to Australian coal. Japanese coal was deemed not suitable for export to Chinese or Indian stations, and Chinese coal was seen as being even more inferior while the Indian coal industry was underdeveloped.⁴⁸ Similarly, Victoria, Australia, and New Zealand were not producing enough quality coal to be considered for naval use.⁴⁹

By 1876, after three years of complaints, the coal situation on the China Station was considered so unsatisfactory that the Admiralty returned to shipping Welsh coal to the China Station despite reservations about its availability during war. This coal was mixed with that of Newcastle NSW in a ratio of two to one, respectively. The complex logistics and expense were prohibitive to this being a permanent solution, however, and thus trials of both Australian and Asian coal continued.⁵⁰ These tests identified coal of increasing quality from the mines of Borneo and Japan, which was used on local stations instead of the much maligned Australian coal.⁵¹ At other stations, such as Shanghai, local Formosa (Chinese) coal was mixed with Australian for warships.⁵²

⁴⁶‘Letter from Admiralty to Ryder, 4 February 1875’, TNA, ADM 125/22; ‘Letter from H.M.S. *Pearl* to Admiralty, 5 June 1875’, TNA, ADM 125/22.

⁴⁷‘Letter from Admiralty to Admiral Ryder, 5 September 1874’, TNA, ADM 125/22. The letter refers to ‘English’ coal, which confusingly means that of South Wales. See also ‘Letter from Admiralty to China Station 25 August 1874’, TNA, ADM 125/22.

⁴⁸‘Letter from Admiralty to China Station, 10 January 1873’, TNA, ADM 125/22.

⁴⁹‘Letter from H.M.S. *Pearl* to Admiralty, 7 July 1874’, TNA, ADM 125/22.

⁵⁰‘Letter from Admiralty to Ryder, 17 March 1876’, TNA, ADM 125/22; ‘Letter from H.M.S. *Audacious* to Admiralty, 30 March 1876’, TNA, ADM 125/22.

⁵¹‘Letter dated 9 July 1883’; ‘Contracts for supply 1883’; ‘Letter of November 10 1883’, all TNA, ADM 125/84.

⁵²Shinya Sugiyama, *Japan’s Industrialization in the World Economy 1859–1899* (London: The Athlone Press, 1988), 178.

General dissatisfaction continued though: In Manila, for example, the navy made arrangements with the Spanish navy to use their Welsh coal rather than use the Australian coal stored there.⁵³

AFTER 1882

This dissatisfaction occurred in tandem with the growing coal consciousness of the 1880s, and as worries about coal quality came to the fore, the use of local coals disappeared almost completely. Abroad, just as it had done at home ports, the Admiralty looked to using only high-quality coal. Indeed, even as far away as Singapore, Welsh coal was used for British warships despite the availability of Japanese Takashima coal used by the navies of France, America, Russia, and Germany as well as by mail steamers. Indeed, “despite its overall dominance [in Asia], Japanese coal could not replace high-quality British coal imported for the British Navy.”⁵⁴

Shipping Welsh coal halfway around the world was a far-from-perfect arrangement, however, and as such tests continued on more local fuels. Only in 1882, however, with the discovery of the steaming qualities of Westport coal from the north of New Zealand’s South Island, that a coal with the necessary naval qualities was available from the region. Widely celebrated as equal even to the best Welsh, such was its quality, it was introduced into naval usage in 1883.⁵⁵ A Royal Commission in 1903 stated: “except for the New Zealand coal I do not think we have heard of any coal that answers our requirements. Australian coal is used on the Australia Station, but is not so suitable as Welsh and New Zealand coals.”⁵⁶ Westport coal was the only Southern Hemisphere coal that allowed warships to perform at peak levels, and after it escaped a cyclone in Samoa, the captain of H.M.S. *Calliope*, in a letter to the Admiralty,

⁵³‘Letter to Admiralty, 22 November 1883’; ‘Letter from British Consulate, Manila’, TNA, ADM 125/84.

⁵⁴Sugiyama, *Japan’s Industrialization in the World Economy*, 190, 193, 206.

⁵⁵‘Letter from Vice Admiral Cyprian Bridge to Admiralty, 28 August 1903’, TNA, ADM 125/56; ‘Letter dated 31 March 1884’, TNA, ADM 122/23. No documentation of its use exists before 1884, when it is said to be available at Wellington, Lyttleton, Port Chalmers, Auckland and Bluff. Bach, *The Australia Station*, 220.

⁵⁶British Parliamentary Papers, 1904 [Cd. 1991], *Royal Commission on Coal Supplies. Second report of the Royal Commission on Coal Supplies. Vol. II. Minutes of evidence and appendices*, 143–155.

praised the fuel for its integral part in avoiding the tragedy. He stated, "we were fortunate in having Westport coal; it burnt splendidly, and reduced the labour of stoking to a minimum. I do not think that we could have kept steam enough to go out with any other coal which we have used on the Australia Station."⁵⁷ The proven quality of Westport coal meant that by the turn of the century, regular shipments were being made to Sydney, Hobart, and the other Australian Naval stations, and it had become accepted that Australian coal "was unsuitable for continuous steaming at high speeds."⁵⁸

Further trials of local coals on the Australia Station continued nevertheless, and the Admiralty even mooted considering offers for Australian coal "which approximate more closely to present prices, owing to the high rates now prevailing both for Welsh coal and freight from England."⁵⁹ No contracts were forthcoming, however; in 1900, the Agent General of New South Wales attempted to secure an Admiralty contract to stock all stations east of Suez with Australian coal to no avail.⁶⁰ Concerns continued to grow, however, because it became clear that the price situation was not short term. Indeed, it had still not improved by 1909 when the coal bill had increased by £284,000 in just one year due to price inflation.⁶¹ Encouraged by the fact that the American Navy had used Australian coal during the Spanish–American War of 1898, and in 1908 had taken an order for Queensland coal for its naval base at Manila, the Admiralty stepped up attempts to find an alternative Australasian coal.⁶²

⁵⁷ British Parliamentary Papers, 1889 [C.5756], *H.M.S. "Calliope." Report of the hurricane at Samoa on the 16 March 1889*. Other accounts can be found in TNA, ADM 1/6969; *New Zealand Herald*, 30 March 1889. See also Bach, *The Australia Station*, 220.

⁵⁸ *Sydney Morning Herald*, 27 April 1898; *Sydney Morning Herald*, 31 October 1900; *Sydney Morning Herald*, 20 November 1907; *Sydney Morning Herald*, 17 July 1908; *North Western Advocate and the Emu Bay Times* (Tasmania), 7 January 1905; *The Mercury* (Hobart), 6 January 1905; Transports–Australian Coal, House of Commons Debate, *Hansard*, 15 February 1900, vol. 79, col. 7474.

⁵⁹ Prices had increased from 11/1 per ton in 1899, to 15/1 in 1900. See *South Wales Coal Annual*, 70; Transports–Australian Coal, House of Commons Debate, *Hansard*, 15 February 1900, vol. 79, col. 7474.

⁶⁰ *Launceston Examiner* (Tasmania), 13 October 1900.

⁶¹ *Launceston Examiner* (Tasmania), 22 April 1909.

⁶² *South Australian Register*, 29 April 1898; *Rockhampton Morning Bulletin* (Queensland), 18 January 1908.

There were numerous tests, both in Australia and in Britain, but despite concerted efforts to find a suitable naval coal in Australia, none was found that came close to equalling the suitability of Westport coal for naval use.⁶³ Much of the complaints about the trialled Australian coal were that it did not produce enough power and produced too much ash. More concerning were suggestions that its use corroded pipes and was not usable in some naval vessels such as the cruiser H.M.A.S. *Encounter*. As a result of these factors, no Australian coal obtained a naval fuel contract from the Admiralty.⁶⁴ The last pre-1914 use of Australian coal on record appears to be in 1893 when the flagship of the Australia Station, H.M.S. *Orlando*, was using coal from the Metropolitan Company, but by this point the use of Australian coal was declining, and this case was an exception.⁶⁵ Indeed, trials had confirmed once more to the Admiralty that although Australian coal was adequate for the needs of commercial shipping, it was unsuitable for the warships of the Royal Navy. Thus, in 1913, Westport coal was practically the only coal used by Royal Navy warships other than Welsh. It was only when war broke out that H.M.A.S. *Melbourne*, a light cruiser, took on 500 tons of coal from Newcastle Coal Limited, but even this seems to have been an anomaly.⁶⁶

Westport was also the solution to the issue of supplying the China Station with coal.⁶⁷ Whilst there were few issues with the coal in Australia, barring cost, on the China Station, there were intermittent concerns about the quality of some individual deliveries of Westport coal toward the turn of the century.⁶⁸ Although concerns soon dissipated, and it was widely accepted that Westport was a suitable fuel for naval use, concerns drew a response from the Admiralty, which made

⁶³ *Melbourne Argus*, 2 November 1911; *Melbourne Argus*, 13 July 1914; *Rockhampton Capricornian* (Queensland), 25 July 1914; *The Adelaide Register*, 8 April 1911.

⁶⁴ *Adelaide Advertiser*, 25 March 1914; *Nepean Times* (Penrith, New South Wales), 21 March 1914.

⁶⁵ *Illustrated Sydney News*, 9 April 1892.

⁶⁶ *Rockhampton Morning Bulletin* (Queensland), 27 July 1914.

⁶⁷ *Sydney Morning Herald*, 19 December 1902: 80,000 tons Westport coal was delivered to the China Station; *The Advertiser* (Adelaide), 6 May 1903.

⁶⁸ See 'Letter from Vice Admiral Cyprian Bridge to Admiralty, 28 August 1903', TNA, ADM 125/56; *Sydney Morning Herald*, 20 November 1902; 'Letter from Cyprian Bridge to Admiralty, 30 November 1902', TNA, ADM 125/56; 'Letter from Vice Admiral Cyprian Bridge to Admiralty, 28 August 1903', TNA, ADM 125/56;

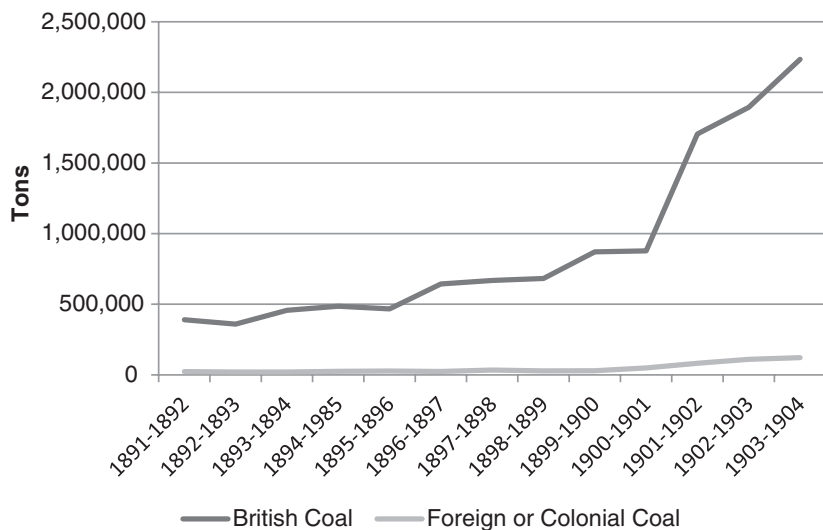


Fig. 4.1 Total coal exported to British naval stations from 1891 to 1904. Data from: British Parliamentary Papers, 1904 [Cd. 1991], *Royal Commission on Coal Supplies. Second report of the Royal Commission on Coal Supplies. Vol. II. Minutes of evidence and appendices*, 143–155

clear the strategic importance of a source of quality coal in New Zealand. Reassuring the Commander-in-Chief, the letter highlighted the fact that although Westport coal had never been as highly prized as Welsh coal, an enemy's coal would be “decidedly inferior to that which would be at the disposal of [the China] Squadron.” Indeed, whoever Britain may have faced in a potential war in the Pacific and Indian Oceans—be it France, Germany, or Russia—in Westport it commanded the best-quality coal in the region as well as its supply. Perhaps this was fortunate, as the Admiralty had little choice in war. Indeed, the NID concluded that it would be impossible to send Welsh coal to China in war, and

Transports—Australian Coal, House of Commons Debate, *Hansard*, 15 February 1900, vol. 79, col. 7474.

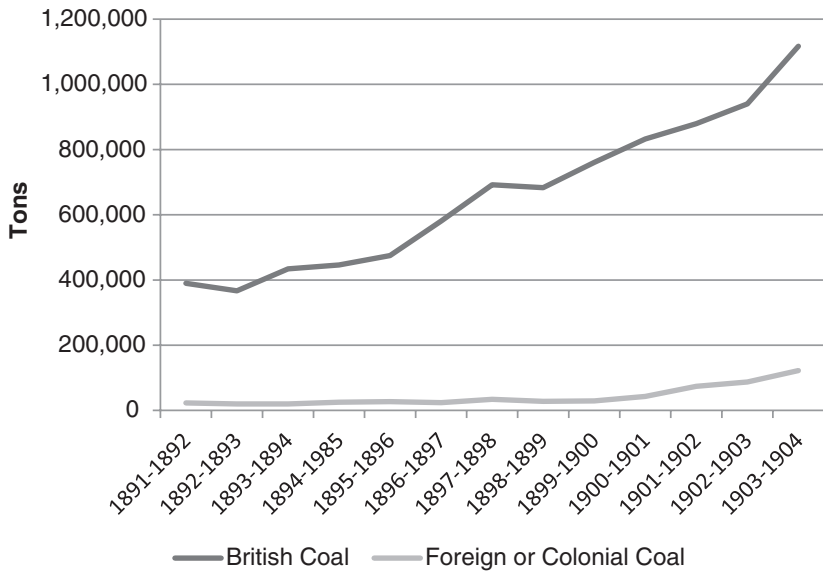


Fig. 4.2 Actual consumption by H.M. ships from 1891 to 1904. Data from British Parliamentary Papers, 1904 [Cd. 1991], *Royal Commission on Coal Supplies. Second report of the Royal Commission on Coal Supplies. Vol. II. Minutes of evidence and appendices*, 143–155

thus Westport represented the best coal available.⁶⁹ Furthermore, the Admiralty needed to relieve stress on Cardiff in a conflict in order to allow it to serve nearer stations effectively. Stockpiling Welsh coal was not an option either because there was not enough space to keep enough coal for a war and—even if there was—it would deteriorate.⁷⁰ Thus, the navy was wedded to Westport coal for the supply of the Australian and China Stations.

Yet, although the Australia Station relied on Westport coal, Welsh coal still dominated the Royal Navy's fuel supply (see Figs. 4.1 and 4.2). As late as 1903, 1,000,000 tons of Welsh coal was sent to foreign stations

⁶⁹ 'Letter from Admiralty to China Station, 29 June 1903', NMM, BRI/15 [1].

⁷⁰ 'Letter from Admiralty to China, 3 July 1903', TNA, ADM 125/56.

and only 100,000 tons from other collieries, mostly from Westport.⁷¹ This dominance does not seem to have been a question of quality because, as the Agent General for New Zealand, W.P. Reeves, had suggested, tests had shown Westport coal to be suitable naval fuel, being nearly as smokeless as Welsh and was equal to it at generating steam. Instead, much of this lay in the quality of the export infrastructure. Whereas the port facilities of South Wales were world-leading, Westport harbour had been slow to develop because for a long time it was only able to allow only small vessels inside, which not only limited supply but also created high prices. By 1900, however, several hundred thousand pounds had been spent on harbour improvements, thus making the price of its high-grade steam-coal cheaper than Cardiff in that part of the world.⁷² Not only was it of extremely high quality, it was also plentiful enough that by 1900 it was declared that there would be enough in war to supply both the Australian and Chinese stations.⁷³ By this point, three fifths of the total output of Westport coal was set aside for the navy. Some 68,000 tons was being shipped to the China Station annually, and Hong Kong in particular was using considerable stocks from New Zealand.⁷⁴ It was also being used in substantial quantities in Ceylon, Fiji, Hong Kong, India, Mauritius, Mozambique, China, North and South America, and various Pacific Islands.⁷⁵

The dominance of Westport coal in Australia is further shown by the fact that although South Wales was exporting some 14.4 million tons of steam and bituminous coal for naval use in 1903, only 7366 tons were sent to Australia.⁷⁶ This increase in the use of Westport coal, however, was largely because naval coal consumption was increasing more

⁷¹When assessing relative export figures, it must also be remembered that Welsh coal had been well established as the best steam-coal for more than thirty years before Westport had been discovered, and it was also closer to the major fleets of the Royal Navy, whereas Westport coal supplied relatively small fleets.

⁷²'Her Majesty's Navy And New Zealand Coal: Letter from W.P. Reeves', *The Times*, 7 March 1900.

⁷³Bach, *The Australia Station*, 220.

⁷⁴British Parliamentary Papers, 1904 [Cd. 1991], *Royal Commission on Coal Supplies. Second report of the Royal Commission on Coal Supplies. Vol. II. Minutes of evidence and appendices*, 143–155.

⁷⁵'Australian Coal', *Weekly Standard and Express*, 20 October 1900.

⁷⁶*South Wales Coal Annual*, 132–157.

generally due to a greater number of ships, more fleet movements, and increased power in naval engines, and Westport had to take its share of the growing demand. As such, coal exported for naval use increased from 450,000 tons in 1893 to 1894, to 710,000 tons in 1898 to 1899, and to more than 1,000,000 tons in 1900. In 1903, it was estimated that consumption would reach 1,250,000 tons.

By 1903, the large growth during the previous two years necessitated more storage to be built at Sydney, which remained the centre of the coaling network. This importance of Westport coal to the China and East Indies stations, as well as the Cape and Australia, also had important geopolitical consequences: it increased the importance of Australia Station itself, and the need to protect coaling ships became part of the argument for an Australian naval force. Westport coal would be indispensable in war, when exports were expected to increase tenfold, with the rest made up by the inferior Australian coal.⁷⁷

Thus, although the dominance of Welsh and Westport coal was challenged in the commercial sector at the turn of the century by the emergence of German, Japanese, Indian, and Chinese coal, none appear to have been used as a fuel on its own for the navy.⁷⁸ An anecdote from Edward Charrington, a midshipman, illustrates this fact: “The authorities were very keen to sell us Formosa coal, which is very poor stuff and makes dense smoke. We declined!”⁷⁹

Whilst the use of Westport coal helped to solve the issue of supplying many of Britain’s far-flung stations, worries emerged as to how much steam-coal of sufficient quality remained in South Wales.⁸⁰ In 1903, during the Royal Commission on the Coal Resources of the United Kingdom, Sir Gordon Millar, the Director of Navy Contracts, pointed to the limited number of collieries capable of producing coal of high-enough quality to be used by the Royal Navy. He therefore suggested that “the best coal was already becoming exhausted, and that the

⁷⁷ ‘Letter from Vice Admiral Lewis Beaumont to Admiralty, 12 January 1903’, TNA, ADM 1/7654.

⁷⁸ See Appendix XII Table Showing Value and Measurement of Various Coals and Petroleum, in Kirkaldy, *British Shipping*.

⁷⁹ Journal kept by Edward Charrington, 1894–1898, Royal Naval Museum, Manuscript Collection, 1999/51/5.

⁸⁰ Brown, ‘The Royal Navy’s Fuel Supplies 1898–1939’, 14; British Parliamentary Papers, 1900 [Cd. 494], *First Lord of the Admiralty’s statement on 1900 Naval Estimates*.

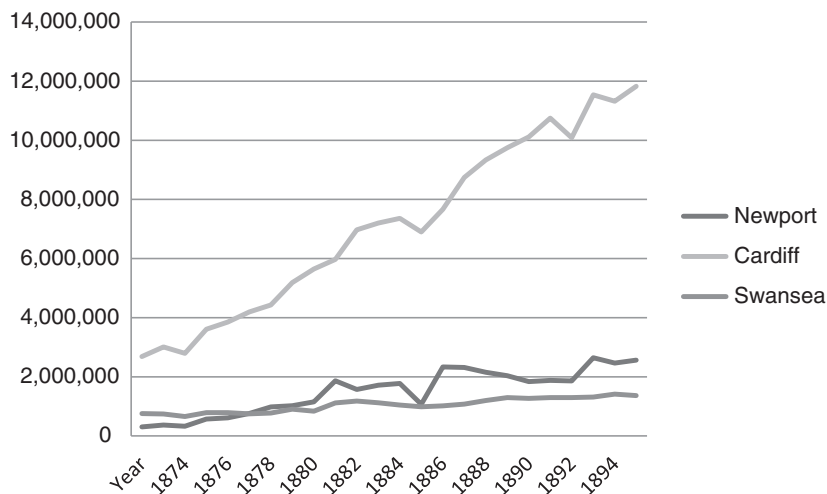


Fig. 4.3 Tons of coal exported from selected British Ports from 1873 to 1895. Compiled from British Parliamentary Papers, *Coals, cinders, &c. An account of the quantities of coals, cinders, and patent fuel, shipped coastways from the ports of England, Scotland, and Ireland severally; of the quantities exported*

coalfield now had to depend more and more upon its second- and its third-class seams.”⁸¹ Subsequently, the Admiralty increasingly looked to source coal elsewhere, and senior naval officers on foreign stations were instructed to not only monitor local coaling but to alert the Admiralty to any suitable fuel for the Royal Navy in the vicinity. Yet, beyond the increasing use of Westport, and despite the enormous empire that Britain commanded, none was found. That this search was ultimately unsuccessful was largely because, as the Admiralty stated in 1903, “irrespective of expense, [Britain] could not go below the minimum standard of requirements special to the Naval Service.”⁸² As a result, even in 1914, Welsh coal dominated coal at naval stations to the extent it was being

⁸¹ *The Times*, 31 March 1909. It must be noted that this was not the view of all those interviewed.

⁸² British Parliamentary Papers, 1904 [Cd. 1991], *Royal Commission on Coal Supplies. Second report of the Royal Commission on Coal Supplies. Vol. II. Minutes of evidence and appendices*, 143–155.

transported as far as Vancouver, which was some 14,300 nautical miles away.⁸³

CONTRACTS

Contracts for coal supply may have officially been arranged in London, but the quotidian supervision of the exports of coal, which were arranged by agents, was performed by a naval captain and his deputy stationed in the Admiralty office in Cardiff, the main coal export port (see Fig. 4.3).⁸⁴ Further supervision was provided by the Admiralty buyer of coals, who, once an agreement had been made, assessed whether the coal was fit for purpose.⁸⁵

Throughout the period from 1870 to 1914, Admiralty contracts were arranged by tender, advertised in the press—and later in the Cardiff Coal Exchange—or by circular letters. Included with the tender form was the Admiralty List, showing which collieries were approved to supply the Royal Navy and therefore which coals could be included in tenders. The prospective agents would then send sealed tenders to the senior naval officer of the relevant station, who would decide on the best offer. The officer would then send the proposal, along with the reasoning for the decisions made written on another form, to the Admiralty in London. Once the agreement was made, the successful agent would report monthly to the Commander-in-Chief of the station to inform them of deliveries and amounts of coal in stock.⁸⁶

As with contracts for Welsh coal, those for supplying Australia, New Zealand, and Fiji's naval coaling stations were arranged by tender,

⁸³Charles Edward Evans, *Hints to Coal Buyers* (Cardiff: Business Statistics, 1909), 63.

⁸⁴These were originally arranged and supervised by the Storekeeper General of the Navy, but this was later transferred to the Director of Naval Contracts after the Admiralty reforms under Hugh Childers in 1868. In 1896, responsibility for coal purchase came under the auspices of the Superintendent of Contracts as part of the new Purchase Department. British Parliamentary Papers, 1845 [600], *Coal, &c. (Navy)*; *Yorkshire Herald*, and *The York Herald*, 29 August 1900; Hamilton, *The Making of the Modern Admiralty*, 155.

⁸⁵It was located at 53, Merchants' Exchange and was manned by Captain William Tunnard RN and his deputy Lieut. William Easterbrook RN in 1906. See *Kelly's Directory of Monmouthshire and South Wales* (London: Kelly's Directories Ltd, 1906). The Admiralty agents are listed as Messrs Harrison and Moore.

⁸⁶No documentation appears to exist for these tenders and agreements at any station except for St. John's, Newfoundland, in 1906. Various forms, TNA, ADM 128/146.

invitations for which were printed in the *Sydney Morning Herald*.⁸⁷ The applications were submitted to the naval depot at Sydney, and naval officials in Australia were responsible for overseeing the monthly shipments.⁸⁸ After 1911, it was the Australian Commonwealth Naval Board, the governing authority over the newly formed Royal Australian Navy, invited tenders for naval coal contracts.⁸⁹ These were then managed by the Director of Naval Contracts, who was based in Melbourne.⁹⁰ Conversely, the contract for Westport coal to Hong Kong was negotiated by the London-based agents Messrs. Weddell, Turner and Co.⁹¹ Although the agents were chosen and employed from London, it seems highly likely that the Commander-in-Chief of the Australia Station had a large say in their appointment. The switch to mainly Westport coal in the 1880s seems to have affected little in the way that the Australian-coaling network functioned, however, with the Commander-in-Chief of the Australia Station being based in Sydney and remaining as overseer of the naval coaling infrastructure.

In general, the agents employed by the Admiralty in Cardiff endeavoured to buy direct from colliery agents, face to face, rather than through middlemen.⁹² These colliery agents were often not directly associated with the collieries themselves but rather were independent companies and often acted on behalf of several collieries. Not all collieries used agents, though, and increasingly some, such as Powell Duffryn, negotiated contracts through their own commercial or sales departments.⁹³ The

⁸⁷*Sydney Morning Herald*, 19 February 1887. They also appear in *Sydney Morning Herald*, 22 June 1883; *Sydney Morning Herald*, 21 June 1879; *Sydney Morning Herald*, 18 June 1881.

⁸⁸Before 1911 it is unclear whether the Commander-in-Chief or the Admiralty in London decided which tender offered the best option in terms of quality and price. 'Letter from Admiralty to China Station, 6 December 1901', TNA, ADM 125/56.

⁸⁹*Rockhampton Morning Bulletin* (Queensland), 19 September 1913.

⁹⁰*Brisbane Courier*, 13 July 1914.

⁹¹*Adelaide Advertiser*, 6 May 1903.

⁹²British Parliamentary Papers, 1873 [313], *Report from the Select Committee on Coal*, 278.

⁹³For example, D.R. Llewellyn, Merrett and Price Ltd acted as a sales agency for the Cwmaman, Graigola, Ynisarwed, Ynysfiao, Aberpergwm, Llwynhelig, Windber, Blaengwawr, and Dyllus collieries as well as several others. The other most prominent colliery agents by the turn of the century were Thomas and Davey Ltd, L. Gueret and Co., and Messrs. Lysberg Limited. See Barnett and Lloyd, *The South Wales Coalfield*, 27, 72–77, 94–99.

Admiralty agents would use “Free on Board” contracts along with the majority of major steam-coal buyers. Colliery companies were therefore responsible for all processes and costs involved in transporting the coal from the colliery to the docks, in addition to the loading and handling at the port, but nothing else. The Admiralty would then employ its Cardiff agents to arrange the ships in which the cargo was to be carried and all other costs incurred in the shipment from the port of loading to the port of delivery. The responsibilities of agents employed by the Admiralty in Australasia—where a largely separate coaling network existed—were just as extensive. Again, they were obliged to send documentation, including the bills of loading, charter party, and advice of shipment, to both the Australia Station and the superintendent of contracts of the Admiralty in London. They would also liaise with those responsible for coaling at each station to arrange shipments.⁹⁴

Wherever they were based, then, these agents were employed in securing coal deliveries, arranging the loading at the port and the shipping to the final destination, using the established links between collieries, ship owners, and depot owners.⁹⁵ In many ways, therefore, we may see this as an extension of the “contractor state,” which was developed in the eighteenth-century, in which “many and complex interactions between government and contractors” existed and “private interests were harnessed and directed to serve public ends.”⁹⁶ Indeed, in the same way, there was great value in using agents to negotiate the complex merchant networks to supply the navy with fuel: when the occasional need for coal arose on short notice, the Admiralty could rely on the expertise of the agents to negotiate these difficulties and deliver efficiency and value even during

⁹⁴Those responsible differed from station to station. On the China Station, for instance, Singapore, Hong Kong and Shanghai had naval representatives, but Nagasaki and Hiogo were represented by agents. See ‘Letter from Admiralty to Australia Station 10 January 1873’, TNA, ADM 122/22.

⁹⁵‘Instructions to the Admiralty Agents in South Wales for Shipping Coal’, TNA, ADM 116/903.

⁹⁶Knight and Wilcox, *Sustaining the Fleet*, 210. Roger Knight and Martin Wilcox, who coined the phrase, suggest that in fact this contractor state may not have come to an end but continues through contracting my major states today. See H.V. Bowen, et al., ‘Forum: The Contractor State c. 1650–1815’, *International Journal of Maritime History*, XXV, 1 (June 2013), 271.

war or strikes.⁹⁷ Moreover, as with the Royal Navy of the eighteenth and early nineteenth centuries, “it was control of quality which was the critical issue,” something which the contractor state enabled Britain to manage effectively.⁹⁸

With such responsibility devolved to commercial agents, it is unsurprising that the Admiralty ensured a system of checks and measures, including inspectors based in Cardiff, to verify the quality of the coal on shipment. Furthermore, the agents themselves were expected to “generally keep the Department advised on all points touching freights, prices, and shipment of coal, and kindred subjects connected with this business.”⁹⁹

DEVELOPMENT OF STANDARDISED CONTRACTS

As coal usage by the navy increased, and as concerns about the need for plentiful supplies of quality coal for swift mobilisation came to the fore, the Admiralty attempted to make the process of purchasing coal more uniform and efficient. In the early 1870s, contracts to buy coal were generally arranged in March due to the financial year, but no agreements were made for a price should the Admiralty need coal in an emergency. To lower the risk of emergency purchases, the Admiralty bought reserves of coal, which it kept at Portland under cover and used within a twelve-month period to avoid the problem of deterioration. These contracts varied—sometimes being for one-off deliveries, sometimes for regular deliveries over the course of two or three years—although it was more usual to have annual contracts, which stipulated multiple deliveries to the station in question.¹⁰⁰ During the period after 1870, however,

⁹⁷ ‘Memoranda dated 19 December 1900’, TNA, ADM 116/903.

⁹⁸ Knight and Wilcox, *Sustaining the Fleet*, 15.

⁹⁹ Ibid.; An explanation of the F.O.B. system, along with relevant forms, can be found in Evans, *Hints to Coal Buyers*, 46.

¹⁰⁰ A government enquiry in 1873 into why coal had become alarmingly expensive and scarce provides crucial information. Although this crisis did not seem to have had much effect on the Royal Navy’s coal supply, the Admiralty buyer of coals, Henry McCulloch, was questioned with regards to the operation of naval coaling contracts. See British Parliamentary Papers, 1873 [313], *Report from the Select Committee on Coal; together with the proceedings of the committee, minutes of evidence, and appendix, Questions 6922–7059*; Walters, *The Economic and Business History of the South Wales Steam Coal Industry*, 313.

collieries attempted to manage the risk of price-and-demand fluctuations by increasing the amount of coal sold on contract rather than on the open market—which was both more expensive and subject to price fluctuations—something they were largely successful in doing.¹⁰¹ This also brought obvious advantages to the Admiralty.

This change proved an amenable one for both the Cardiff coal-export trade and the Admiralty, and only at the turn of the century, when there were more deliberate steps toward the standardisation of contracts, were further changes attempted. The motivation for this move came from both sides. With the coal trade booming, the Chamber of Shipping in Cardiff looked to create a more homogenised system through its first Welsh Coal Charter, which was produced in 1896. This was a document, drawn up specifically for the South Wales coal trade, that standardised the contracts for coal export.¹⁰² Soon afterward, the Admiralty looked to make its own coaling arrangements more regularised. A conference to discuss arrangements for placing Admiralty contracts for coal was held on 27 August 1900 at the Cardiff Chamber of Commerce ostensibly because Britain's overseas coaling stations were “in short supply,” at least according to the Cardiff correspondent of the *Daily Telegraph*.¹⁰³ Whatever the immediate cause, it is unsurprising that the Chamber of Shipping was keen to bring the Admiralty into line with “the practice of all other large consumers,” with standardised and regular coal contracts, which before this point appear to have been arranged on a more ad hoc basis.¹⁰⁴ Yet it should also be seen as a further measure caused by the coaling consensus—which was well established by the turn of the century—and increasing international uncertainty. Should a war break out, it was imperative that reliable measures were in place to ensure the delivery of suitable fuel worldwide. The importance of the issue, and the drive to make contracts more suited to present circumstances, is perhaps best shown by the fact that, alongside those who usually negotiated contracts, i.e., the Admiralty's Cardiff representatives and the colliery owners and

¹⁰¹ Daunton, *Coal Metropolis*, 58.

¹⁰² Edward F. Stevens, *Shipping Practice* (London: Pitman, 1931), 40–54.

¹⁰³ He cites rumours from those ‘in well informed coal circles,’ presumably as a result of the major strike of 1898. *Yorkshire Herald, and the York Herald*, 29 August 1900. The strike is discussed later in the chapter.

¹⁰⁴ *The Times*, 28 August 1900; Daunton, *Coal Metropolis*, 62.

managers, the meeting was also attended by the London-based Naval Lord of the Admiralty, the Civil Lord of the Admiralty, and the Director of Naval Contracts.

The proposals from the Admiralty looked to standardise and simplify the purchase of coal. Invitations for tenders for coaling contracts would be advertised for the year ahead in November, in both the domestic and the colonial press, for coal provision under ordinary conditions, and also for a possible supply in an emergency, for a total of 1,000,000 tons by the next autumn. This allowed the Admiralty to avoid fluctuations in coal prices and negotiate lower costs.¹⁰⁵ In reality, the difficulty in estimating global usage (which will be discussed in the next chapter) meant that the Admiralty rarely stuck to just one call for tenders. In 1903, for example, the Admiralty invited exceptional tenders for 1,000,000 tons of steam-coal for the last four months of the year to be sent to Gibraltar, Malta, and other stations and then in November signed agreements with twenty Welsh collieries for a further 500,000 tons of coal.¹⁰⁶ Yet, it was still an important step that benefited both the coal trade and the Admiralty whose purchasing became more efficient at a lower cost.

SHIPPING

It was not just contracts for coal that agents were employed to maintain, but also the multitude of other processes involved in shipping the coal to a foreign depot.¹⁰⁷ Although there was a growing connection between shipbrokers and coal factors, the businesses of coal and shipping were generally distinct, and after 1880s, ship owners often chartered vessels but rarely got involved in trade themselves.¹⁰⁸ Contracts appear to have been tendered for on a quarterly basis between 1890 and 1914 with the coal to be delivered at a specified monthly rate. As well as standard

¹⁰⁵ *The Times*, 28 August 1900; *Brisbane Courier*, 3 November 1900; *Sydney Morning Herald*, 3 November 1900.

¹⁰⁶ *Brisbane Courier*, 21 August 1903; *Western Champion* (Queensland), 28 November 1903.

¹⁰⁷ British Parliamentary Papers, 1904 [Cd. 1991], *Royal Commission on Coal Supplies. Second report of the Royal Commission on Coal Supplies. Vol. II. Minutes of evidence and appendices*, 143-155.

¹⁰⁸ Daunton, *Coal Metropolis*, 55-68.

deliveries, on-occasion contracts would be agreed for “emergency supplies.”¹⁰⁹

Although the Admiralty did not use middlemen, the sourcing and movement of naval coal was often complicated by the number of different bodies involved because agreements had to be reached with colliery agents, shippers, and bunker owners. To confuse matters further, due to the huge amount of coal required by the Admiralty, as well as the multitude of destinations that it needed to be sent to, naval coal was often purchased from several collieries in one year and thus coal supply to just one station could involve several companies.¹¹⁰ Again, the expertise of the coaling agents was of particular use here. There were, however, existing arrangements in place between some of these bodies. In fact, especially after 1900, there was a growing amount of amalgamation between companies involved in all aspects of the coal-export trade.¹¹¹ For instance, collieries often had established links with ship-owning firms to export their coal abroad.¹¹² Some of the coal-export companies also owned many of the depots to which they shipped.¹¹³

The coal-export business relied almost entirely on tramp ships, with no fixed route, that went wherever the charterer wished.¹¹⁴ Because coal was a low-value, bulk cargo, it was generally exported as part of wider trade patterns to bring greater profit whether was exported to in Europe or further afield. With there being no great import trade to Cardiff, shipping agents looked to subsidise the cost of exporting coal by involving the ships in wider trade movements.¹¹⁵ Welsh coal to the Mediterranean often returned from the Black Sea ports with grain, and coal shipments to South America’s east coast to ports in Brazil, Uruguay, or Argentina

¹⁰⁹Evans, *Hints to Coal Buyers*, 58.

¹¹⁰Walters, *The Economic and Business History of the South Wales Steam Coal Industry*, 313.

¹¹¹Daunton, *Coal Metropolis*, 59–61.

¹¹²Walters, *The Economic and Business History of the South Wales Steam Coal Industry*, 299–301.

¹¹³By the turn of the century, Lambert Brothers was one of largest, and it owned coal depots in Port Said, Gibraltar, Suez, Perim, Huelva, Fayal, Las Palmas, and Barbados, all of which were used by the Royal Navy. See Barnett and Lloyd, *The South Wales Coalfield*, 54–57.

¹¹⁴Daunton, *Coal Metropolis*, 63.

¹¹⁵*Ibid.*, 66.

would often return with Argentinean grain. Other routes were subsidised by alternative cargoes: Ships carrying coal to Aden or Perim may have returned with Indian rice; exports to the Caribbean could return with copper ore from Cuba or cotton or timber from the US gulf ports; and North American exports could return with general cargo from US East Coast ports.¹¹⁶ As a result of this, the movement of naval coal became an integral part of many of the very trade networks that the navy was charged with protecting.

Welsh export companies rarely shipped to depots any further afield than the Red Sea and Caribbean because beyond these stations Welsh coal could not compete with more local coal. The specific needs of warships means that the navy still required high-quality Welsh coal further afield, however.¹¹⁷ In the case of these stations, therefore, the ability to subsidise the cost of coal exportation was especially important. Thus, coal ships sent to the west coast of North America again returned with grain, and those sent to western South America returned with nitrates.¹¹⁸ This became even more the case at the end of the century, when there was a general decrease of the export of Welsh coal to eastern Asia due to competition from local coals such as that from India, China, and Japan. Indeed, the need for best-quality steam-coal meant that the Admiralty, as well as some steam-packet and liner companies, relied on the shipment of Welsh coal further afield. In fact, increased demand due to larger, more powerful steamships probably meant that exports for these purposes actually increased.¹¹⁹

The shipping of Australasian coal to naval stations and those commercial stations used by the navy again used commercial coal-trade networks. With so few stations in the Pacific, and only Esquimalt along the entire western seaboard of North and South America, commercial stations were especially important to the Royal Navy in these waters; thus, existing trades were integrated with the shipping of naval coal. The Pacific coal trade was geographically triangular and centred on Australia. When taking general cargo to Australia, ships then took coal from Newcastle NSW

¹¹⁶Private correspondence with Dr J.D. Davies.

¹¹⁷Barnett and Lloyd, *The South Wales Coalfield*, 54–57.

¹¹⁸Walters, *The Economic and Business History of the South Wales Steam Coal Industry*, 325, 327.

¹¹⁹*Ibid.*, 323, 326.

to South America, where they took copper ore, nitrates, and guano back to Britain, or to California, and they returned with grain. The dominance of Newcastle as a coaling port for Australasia, South Eastern Asia, and the western seaboard of the American continent led to it earning the nickname “Coal opolis.” It was the busiest port in Australia, and by the 1880s it was the largest coal-exporting city in the southern hemisphere.¹²⁰ Although the Royal Navy did not ordinarily use Australian coal under normal circumstances after 1882, it seems likely that the Admiralty continued to use the superior shipping facilities of Australia for shipping Westport coal through Newcastle.¹²¹

Somewhat ironically, even in the twentieth century, the coal for most naval stations was shipped by sail because it was cheaper, and speed was less important for low-value trade.¹²² The government stated in 1896 that “for cheapness it is desirable to send it in sailing vessels,” even if, in extreme cases, it had to use foreign ships if no British ones were available.¹²³ Even as late as 1901, sailing ships were habitually used to send coal to naval stores at Esquimalt, Coquimbo, South Africa, and Trincomalee.¹²⁴

CONCLUSIONS

The advent of the steam warship caused Britain new and complex infrastructural difficulties. The sheer geographical scale of the navy’s role required coal to be shipped to stations as far away as Esquimalt, Fiji, and

¹²⁰Michael Clark, ““Bound out for Callao!”: The Pacific Coal Trade 1876 to 1896: Selling Coal or Selling Lives? Part 1”, *Great Circle*, 28, no. 1 (2006); Michael Clark, ““Bound out for Callao!”: The Pacific Coal Trade 1876 to 1896: Selling Coal or Selling Lives? Part 2”, *Great Circle*, 29, no. 1 (2006).

¹²¹*Sydney Morning Herald*, 27 April 1898; *Sydney Morning Herald*, 31 October 1900; *Sydney Morning Herald*, 20 November 1907; *Sydney Morning Herald*, 17 July 1908; *North Western Advocate* (Tasmania), 7 January 1905; *Mercury* (Tasmania), 6 January 1905; *Sydney Morning Herald*, 19 December 1902; *Adelaide Advertiser*, 6 May 1903; *Sydney Morning Herald*, 19 December 1902; ‘Letter from Vice Admiral Lewis Beaumont to Admiralty, 12 January 1903’, TNA, ADM 1/7654.

¹²²*South Wales Coal Annual*, 77–130.

¹²³Army Coal Transport, House of Commons Debate, 12 May 1896, *Hansard*, vol. 40, cols 1129–1130.

¹²⁴‘Instructions for the Admiralty Agents in South Wales for Shipping Coal’, TNA, ADM 125/56.

Valparaiso—an obligation unparalleled by its rivals. Furthermore, the increasingly advanced warships of the Royal Navy required large amounts of coal with exact properties: efficiency, clean burning, and high power production.

The Admiralty was able to overcome these substantial barriers as a result of its ability to harness inherited advantages. Its trials of coal in the early part of the period were crucial to establishing suitable fuels for the navy and establishing the pre-eminence of Welsh steam-coal. Although, particularly abroad, the 1870s were a period of ad hoc measures, the increase of coal consciousness in the 1880s led the Admiralty to realise the need for premium-quality coal at all of its stations. A more considered approach to naval coaling therefore saw thousands of tests performed on coal from all over the world in order to find suitable examples. Although the discovery in 1882 that coal from Westport, Zealand, was as good as any other, bar Welsh, for warships, ironically, in striving to expand the variety of fuel that the navy stocked, the Admiralty actually largely reduced itself to relying on two main sources, in finding that only they had the characteristics required by a modern steam navy.

Yet, through these tests, the Admiralty also showed that Britain was in possession of both sources of the best coal for warships. Once it had done so, it was able to exploit the enormous and world-leading coal export industry situated in South Wales and, to a lesser extent, that of Newcastle, New South Wales, to ensure the regular supply of the highest-quality fuel to its warships wherever they coaled. In what may be described as a late nineteenth-century contractor state, the Admiralty used the expertise and connections of agents to best leverage the advantages manifested by this commercial coaling infrastructure. Moreover, through this control, Britain had the potential to deny any rival or enemy the same advantages, something which is explored more fully in the next chapter.

Managing the Navy's Imperial Supply

Whilst the changes described in the previous chapter ensured that quality fuel was purchased and arrangements made to ensure that it could be shipped efficiently to stations, even in war, these measures did not ensure that the needs of each station could be met effectively. This chapter will therefore assess how the Admiralty ensured that, should a warship arrive at any station across the world, there would be adequate amounts of high-quality fuel to load its bunkers. However, due to the nature of coal, it could not be put into long-term storage lest it deteriorate and become unsuitable for use. Thus, stock control was a crucial, yet hugely difficult, issue for Britain. Whilst the Admiralty relied on commercial agents to manage the contracts and transport of naval coal, it had to devise its own methods to regulate its supply.

As with most of the ramifications caused by a shift from sail to steam, the increasing coal consciousness of the 1880s brought this issue to the fore. Increasingly, the Admiralty came to realise that data collection and communication were critical to ensuring a robust and effective coaling infrastructure. Steps taken by the Admiralty to improve the efficiency of its coaling infrastructure included better accuracy in coal estimates for each station, and, by collecting large amounts of data, creating a knowledge of foreign stations used by naval ships. To achieve this, stations were increasingly required from the 1880s to provide London with

information about stocks, facilities, and station activities using Britain's vast global mail and telegraphic networks.¹ Such processes were inherently prone to miscalculations, and even with extensive and detailed communications, fluctuations in supply and stocks at stations occurred throughout the period. Despite this, these processes ensured far more central control of naval coaling, thus underpinning the success of Britain's naval coaling infrastructure.

Indeed, these changes, combined with the ability to control the sources and movement of the best-quality steam coal, ensured that Britain entered the twentieth century with the most secure infrastructure of any power. This was particularly shown when a major coal strike, lasting over six months, severely affected the naval coal supply, yet there was little noticeable change for warships. Conversely, the reliance of other powers on British coal and infrastructure meant that when this was unavailable, or denied, their navies faced extreme difficulties in performing even basic naval duties. This chapter concludes with examples of these stresses and failures in the coaling systems of foreign navies, thus highlighting the enormous global advantage held by Britain in terms of fueling its navy.

ENSURING SUPPLY

Understanding how the navy managed supply at stations is complicated by the individual nature of the situation at each. These can be usefully divided into three distinct types, however: stations that were overseen by naval personnel; stations for which the navy had commercial contracts for coal and/or agents; and stations where naval ships bought coal from the open market. Those stations overseen by naval personnel were predominantly naval stations—such as Gibraltar, Malta, or Singapore—but also included major colonial port cities not listed under Admiralty coaling stations such as Sydney and Melbourne.² Stations where the Admiralty employed commercial agents or held contracts for supply were generally foreign commercial ports that were often, but not exclusively, owned by allies. These included ports such as Shanghai and Madeira. In the

¹John Beeler, *Birth of the Battleship: British Capital Ship Design, 1870–1881* (London: Chatham, 2001), 52.

²'Coaling Stations' (c.1891?), NMM, MSS/76/111.

early years of the steam navy, ships' captains appear to have largely been allowed free rein on where they coaled, but coaling at the third type of station, where no contracts stood, was discouraged.

A crucial part of the Admiralty's role in ensuring an adequate global supply of quality fuel for the navy was in attempting to approximate how much coal was needed for the navy as a whole and then that needed by each station. Estimating coal usage was particularly difficult because needs rarely remained static, and thus experience could offer only a vague guide to future use. Uncertain amounts of ship use, different patrol patterns for squadrons, and the unpredictability of geopolitics could all cause variation in coal use, and thus estimates were not be an exact science.³ This was compounded by the need for each Commander-in-Chief to provide further cost estimates for the purchase and maintenance of coaling craft as well as those of the labour required for the receiving and issuing of coal to the fleet.⁴

In the early years of the steam navy, there were multiple problems with ensuring adequate coal supply overseas. For example, in the 1850s and early 1860s, although the navy held stores at Halifax, Bermuda, Jamaica, and Barbados, they were "wholly inadequate" for the needs of the fleet and thus "coaling was the biggest materiel concern." To alleviate this issue, the navy relied on the stores of the Royal Mail Steam Packet Companies at St. Thomas and Havana, which also used Spanish supplies in Havana. Even so, shortages meant that ships were often told to economise.⁵ To assuage this situation, the Commander-in Chief of the station, Admiral Milne, looked for ways to ensure that adequate amounts of coal were sent out to overseas stations. Using complex calculations, he was able to suggest an educated estimate for future coal usage, but the resulting figures have now come to be seen as over-estimates.⁶

Of course, experience produced a level of accuracy in approximating the amount of coal needed, but with the expansion of the steam navy more systematic methods were introduced. Some of these were matters

³'Steam Vessels at home and abroad 1879/80', NMM, MLN/163/4 [5].

⁴'Fleet coaling service—Memorandum of Instructions as to Annual Estimates 8 July 1901', TNA, ADM 125/56.

⁵John Beeler (ed.), *The Milne Papers, Volume II: The Royal Navy and the Outbreak of the American Civil War, 1860–1862*, (London: Routledge, 2015) xliv, 466.

⁶Wilson, 'Fuelling the Steam Navy', 38.

of clarification, but nonetheless they show that the Admiralty had begun to take the issue of supply more seriously. For example, one early issue with estimating coal usage at stations was caused by confusion about who exactly could be issued naval coal; a letter of 1876 suggested that the China Station had been issuing coal not just to the Royal Navy but also to commercial ships and foreign navies. In response to this, the Admiralty suggested that foreign navies should only be supplied if coal could not be obtained elsewhere and there was enough spare in storage.⁷ Other changes were rather prosaic yet still effective. In 1872, it was announced that marks be put on bunkers and storehouses to allow easy reading of remaining stocks, thus helping to ensure the maintenance of adequate supplies at stations.⁸ Such measures have led Wilson to suggest that “by the late 1870s progress had been made in regulating coal supplies. A regular plan existed for supply, supply contracts, and monthly and annual returns from foreign stations to monitor the coal supply system.”⁹ However, although it is true that the early effects of coal consciousness had begun to improve the efficiency and accuracy of supply, contract negotiations and supply in the 1870s appear to have been largely ad hoc responses to necessity rather than a measured, regular system of supply.

In the 1880s, in response to increased demand and an emerging coal consciousness, real steps were taken to improve and professionalise the supply of coal to foreign stations in line with other changes enacted in response to the coaling issue. A series of changes asserted more central control and helped to create a more systematic approach to regulating control. In 1882, an early change was the cessation of purchasing coal on the open market after a spate of coal purchases at high rates.¹⁰ The need to communicate this to stations highlights the lack of central control over warships previously as there were over thirty commercial stations, in addition to those owned by the Admiralty, where agreements for coal for the navy existed.¹¹ Recognising a need to re-evaluate its procedures, the Admiralty sought to extend the amount of individual

⁷ ‘Letter from Robert Hall to China Station, 1 April 1876’, TNA, ADM 125/22.

⁸ ‘Admiralty letter dated 14 April 1874’, TNA, ADM 123/110.

⁹ Robert Wilson, ‘Fuelling the Steam Navy: Naval Coal Supplies from Comet to the Carnarvon Commission’, MA Dissertation, Exeter University, 2010, 95.

¹⁰ ‘Letter from Admiralty to all stations, 28 April 1882’, TNA, ADM 122/23.

¹¹ ‘Steam Vessel Coals 1882–1883’, NMM, MLN/163/4 [12].

arrangements it made with local agents for export, thus decreasing the need for expensive purchases on the open market.¹²

The Admiralty could hope to effectively manage such a complex global infrastructure only if it first understood what currently existed. Thus, a letter from the naval secretary, Robert Hall, dated August 1880, contained

a proposal to obtain and tabulate exact particulars, as far as possible, of the quantity, quality, price etc. of the coal likely to be available at any time at all ports abroad. The advantages of the possession of this information, whether in peace or war, especially if it is carefully gathered and periodically revised, are obvious.¹³

To ensure uniformity, instructions were enclosed to collect data on a standardised form for each port under their command that was visited or may be visited by Royal Naval ships. Due to the extensive use of commercial infrastructure, the form required data not just from naval personnel but from any organisation importing coal to any ports used by the navy. The form comprised three pages and collected key details about the type of coal at each station, how much coal was on average imported annually and kept in store, what price the stations were paying for their coal including freight, and disclosure of their agent in Britain. The forms also asked about the station itself, how much coal was stored on shore under cover and on hulks, and how many ships could be coaled simultaneously, as well as other details about coaling arrangements at the ports.¹⁴ By aggregating these forms, the Admiralty, for the first time, was able to create a full and current picture of how coaling operated globally. This is perhaps surprising when one considers that all ships launched by the navy had been solely steam powered for nearly a decade, but it reflects the impact of coal consciousness in promoting a more careful consideration of all aspects of coaling the navy.

The information was processed by the Admiralty to produce a volume in 1882, which was distributed amongst Royal Navy vessels, thus allowing captains at sea a knowledge of global coaling facilities available for

¹²‘Memorandum of 17 May 1906’, TNA, ADM 128/146.

¹³‘Letter from Robert Hall, Naval Secretary, August 1880’, TNA, ADM 123/110.

¹⁴*Ibid.*

their use. This was not the first of its kind, but it was certainly the most accurate thus far, with the previous volume containing glaring errors. For example, a letter in 1880 informed the Admiralty that no coal was stored at Cape Coast Castle despite it being listed as a coaling station.¹⁵ Such errors could be calamitous and could potentially leave a ship stranded at a station without fuel. A key facet of the new edition was therefore to create a more accurate picture of the naval coaling infrastructure by eradicating these errors. Yet, because the coaling situation was not static, for it to remain accurate the Admiralty's data gathering had to be perpetual. Furthermore, the inconsistent nature of the data gathering for the 1882 volume meant that some stations had not been included. Recognising this, it was therefore suggested that corrections and additions be made to the volume by those using it, and these data were to be sent to secretary of the Admiralty to disseminate. The annual demand form was also continually updated to allow the collection of more data about coaling at various stations including details of coal expended in the past year and the amount kept in store.

Through collecting increasing amounts of data about coaling stations, and using it to create a more informed knowledge of the processes involved, the Admiralty was making a clear, concerted effort to take better control of its coaling infrastructure. Furthermore, the Admiralty recognised that a growing fleet and increasing coal consumption would necessitate further changes. This can be seen in requests for information about the future possibility of using coal from local mines and whether the stations could be expanded to cope with a larger amount of coal. The Admiralty was also seeking more detailed information about the sites themselves, including the speed of loading at the stations, and requesting a sketch or photo of the layout.¹⁶

The year 1884 saw another adaptation to the system when a new form was introduced for commanders to state the annual demand for each station. The form was more complex, again asking for further details on all aspects of coaling at the stations, but particularly important was the request to state whether coal purchases were made through the Admiralty or through local agents, thus suggesting that the Admiralty was looking to make efficiency savings by controlling supply more

¹⁵ 'Letter from Cpt. William Liddell to Admiralty, 1880', TNA, ADM 123/83.

¹⁶ 'Letter dated 31 August 1882', TNA, ADM 123/110.

effectively. There was also an effort to structure the shipping of coal by informing stations of the minimum size of collier available, thus allowing the smallest amount of coal that could be ordered. Shipment periods when coal could be ordered were also defined, and the stations were advised that the earlier in this period that they ordered coal, the better.¹⁷ Although the Admiralty was clearly seeking to improve the effectiveness of its coaling infrastructure, the nature of the queries included in these forms do somewhat question how much the Admiralty knew about how its ships were coaling before the 1880s. They also imply that before this, the system was largely decentralised with the Commanders-in-Chief of each station being almost solely responsible for ensuring that coaling worked within their remit.

This formalised communication structure with Commanders-in-Chief of foreign stations, through the use of uniform forms, allowed the Admiralty to standardise naval coaling worldwide. Yet that is not to say that the system was flawless. Indeed, it was commonplace for differences of opinion to emerge. Unsurprisingly, much of this stemmed from stations asking for larger estimates as consumption increased and the Admiralty replying with requests for more economy and restraint. In general, the Admiralty generally got its way, despite the protestations from commanders at foreign stations, who complained that useful exercises and fleet manoeuvres would have to be sacrificed.¹⁸

Although these measures improved the Admiralty's knowledge of coaling arrangements in these stations, the issue was evidently not completely solved. In 1903, the Admiralty had to be informed by the China Station that naval ships in Japanese waters did not use China Station fuel and, perhaps more worryingly, that the naval station at Yokohama had been out of use for some time.¹⁹ Furthermore, even with the implementation of improvements in communication and professionalisation, coal estimates for foreign stations still remained inaccurate much of the time. This difficulty in estimating how much coal to send to naval stations can be seen from the constant fluctuation in the additions to or decrease of stocks of coal kept in store at overseas stations (see Fig. 5.1). Yet this perhaps obscures the efficiency of the infrastructure, and testament

¹⁷ 'Letter from Evan MacGregor, 1 August 1884', TNA, ADM 123/110.

¹⁸ 'Various correspondences from the China Station', TNA, ADM 125/56.

¹⁹ 'Memorandum dated 7 April 1903', TNA, ADM 125/56.

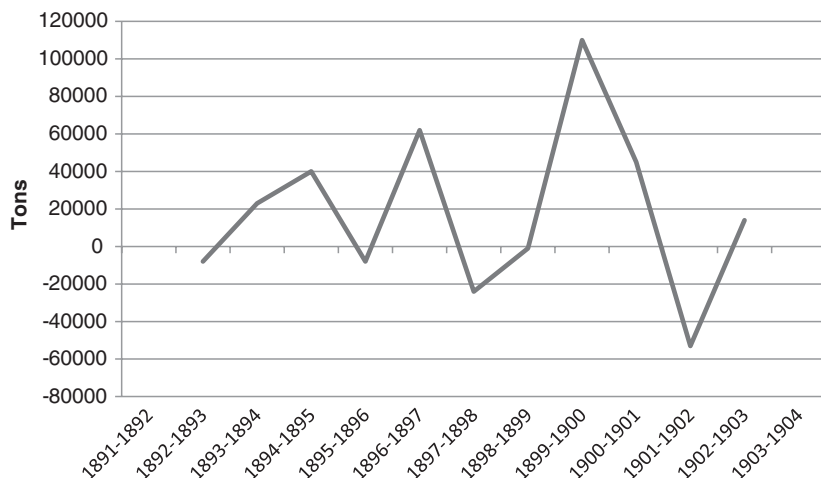


Fig. 5.1 Chart showing additions to or reductions in stocks of coal at naval stations from 1891 to 1904. Compiled from British Parliamentary Papers, 1904 [Cd. 1991], *Royal Commission on Coal Supplies. Second report of the Royal Commission on Coal Supplies. Vol. II. Minutes of evidence and appendices*, 143–155

to this is the lack of examples of ships finding inadequate amounts of quality fuel at stations. Indeed, as subsequent sections will show, these measures extended Britain's existing advantage in terms of the coaling infrastructure, making it remarkably robust, especially when one compares it with that of its rivals.

STRESSES AND FAILURES IN COALING INFRASTRUCTURE

Britain's enormous and complex system for ensuring that quality coal was available globally for its navy has perhaps escaped detailed assessment because efficient infrastructure is often made invisible by its own success—"black boxed"—and thus often the only time it becomes noteworthy to contemporaries, or evident to historians, is when it fails.²⁰

²⁰Bruno Latour, *Pandora's Hope: Essays on the Reality of Science Studies* (Cambridge, MA: Harvard University Press, 1999), 304. See also Stephen Graham, *Disrupted Cities: When Infrastructure Fails* (London: Taylor & Francis, 2009).

What is remarkable in the case of the British naval coaling infrastructure was how few failures occurred despite its size and complexity. The resilience of this coaling infrastructure to unexpected urgency or strain was extraordinary and was the envy of Britain's rivals. In 1892, the *New York Times*, bemoaning the state of the American arrangements, described British naval coaling as an "enormous system under ... splendid control."²¹

Although there were early "teething" problems with supply, such as those on the North American Station described previously, these occurrences largely predate this study.²² Indeed, accounts of British ships being unable to obtain coal after 1870 are very rare, suggesting that this was highly exceptional especially as the period continued. H.M.S. Swinger, under the command of John Marx, is one such example from 1884, but it was an exceptional case. Running very low on coal in Matapui, located in the southwest Pacific, Marx was forced to negotiate with German naval officers to obtain fuel, eventually being able to obtain coal in return for taking the German mails. Whilst the British coaling infrastructure was weakest in the Pacific where vast distances lay between stations, this failure lay in the condition of the ship, a twelve-year-old hybrid ship with an inefficient engine having the ability to carry only 40 tons of fuel at a time.²³

With a global chain of stations, and efficient arrangements for the purchase and transportation of coal, the main weakness of the British infrastructure during this period lay in the Royal Navy's heavy reliance on Welsh coal. Whilst the advantages of using this coal have been already discussed, using predominantly only one type of fuel meant that large-scale and long-term strikes in the Welsh coalfields could have been disastrous for the navy by causing huge supply issues and resulting paralysis of the fleet. This was exacerbated by the fact that such strikes were not uncommon. The worst of these occurred in 1898 and showed how easily the reliance of the Admiralty on Welsh coal could result in a crisis. Yet it also showed that, even under immense strain, contingency plans and emergency measures meant that the naval coaling infrastructure

²¹ *New York Times*, 6 March 1892.

²² Many of these can be found in Beeler (ed.), *The Milne Papers, Volume II*.

²³ John Marx, *Recollections of the South West Pacific*, Royal Naval Museum, Manuscript Collection, 2009.39/1/20.



Fig. 5.2 “British Strike-coal ships tied up at Cardiff.” Courtesy of Library of Congress, George Grantham Bain Collection LC-B2-2392-13 [P&P] LOT 10854

remained largely unaffected. Although the strike precipitated a disastrous lock-out that lasted some twenty-one weeks and five days, the Admiralty was able to not only avoid disaster but largely to continue in only a slightly limited capacity (Fig. 5.2).

The strike was a result of tensions over the sliding scale used to determine colliers’ wages, which had surfaced as early as 1892 but boiled over in 1898.²⁴ Almost as soon as the strike began, the press recognised that it would cause significant problems to the Admiralty and the liner companies and in doing so brought the importance of Welsh coal to national

²⁴‘Merthyr Miners and The Sliding-Scale’, *Western Mail*, 19 July 1892; Joseph Morewood Staniforth, *Cartoons of the Welsh Coal Strike, April 1st to September 1st, 1898* (Cardiff: Western Mail, 1898), 3.

security briefly into the national consciousness.²⁵ The Admiralty immediately put in place restrictions on the use of Welsh coal in the hope that this would allow its operations to be largely unaffected by the strike.²⁶ The Admiralty was still able to use coal from those collieries in Wales that were not involved in the strike, but this appears to have proved insufficient, and—as the strike continued—it became clear that alternative sources for coal would need to be found. This temporarily caused the navy to fall back on the previous fuelling arrangement with navy ships using North Country coal in mixture and the Admiralty inviting tenders for emergency contracts.²⁷

Overseas stations also sought alternative sources of coal: Due to the shortage of quality Welsh steam-coal, Bermuda and Halifax bought quantities of American Pocahontas coal.²⁸ Although this would have compromised performance, with a decrease in the Welsh coal supply also affecting rival navies, British ships retained their relative advantage overseas because it dominated these alternative supplies. Reports from Kiao-Chou, China, stated “that the movements of the German fleet on the China Station are paralysed, owing to Russia and Great Britain having purchased the whole of the coal supplies in the Far East.”²⁹ Furthermore, local coal supplies—such as those in Nova Scotia, Vancouver, South Africa, and Australia—although seen as unfit for general naval use would in emergency situations still be an equal, and usually better, fuel than that obtainable by an enemy.

It was this ability to control a large portion of suitable coal, and the infrastructure to make it available abroad, that made Britain's coaling apparatus so robust even in times of crisis. Importantly, it also allowed the Admiralty to deny quality coal to rival navies even when the navy was at its most vulnerable.

With a settlement to the lock-out taking far longer to appear than had been expected by the Admiralty, the naval manoeuvres of 1898 were

²⁵ ‘The Coal Strike’, *Daily News*, 8 April 1898.

²⁶ ‘Letter from R.C. Webster’, *Morning Post*, 8 April 1898.

²⁷ ‘Imperial Parliament’, *Morning Post*, 25 June 1898; Appropriation Bill, House of Commons Debate, *Hansard*, 12 August 1898, vol. 65, cols 15–29; British Parliamentary Papers, 1904 [Cd. 1991], *Royal Commission on Coal Supplies. Second report of the Royal Commission on Coal Supplies. Vol. II. Minutes of evidence and appendices*, 143–155.

²⁸ *Hobart Mercury*, 28 September 1900.

²⁹ ‘The German Navy Paralysed By Lack of Coal’, *Perth Inquirer*, 3 June 1898.

cancelled.³⁰ Whilst this measure was perhaps not conducive to good public relations, the restrictions imposed were remarkably successful. Despite the obvious strain on naval coal supplies caused by the strike, the Admiralty was able to withdraw the limitations on Welsh coal use almost immediately once a settlement was reached.³¹ Although this episode was something of an embarrassment for the Royal Navy, the strike actually largely proved the durability and versatility of the coaling infrastructure. Despite concerns being raised about the levels of coal stock held, there was little the Admiralty could do without large amounts deteriorating in storage, and the development of patent fuel for reserve use was already underway.³²

The year 1898 did highlight that the danger of strikes was a serious one, though, especially if one were to occur at a time of geopolitical crisis. Thus, when war came in 1914, the government took direct action by assuming control of the Welsh coal industry “to ensure that strikes over wages did not stop supply of coal to the Royal Navy.”³³ This did not stop a dispute leading to a strike in 1915, however, but again the government—recognising the damage it could do—took direct action. Whereas the government had largely remained at a distance from negotiations in 1898, the Chancellor of the Exchequer, David Lloyd George, travelled to South Wales just four days into the strike to offer concessions, thus successfully ending the dispute.³⁴ Indeed, such was the importance of Welsh coal to the war effort that the entire coal industry was subject to direct control from the government after the strike, thus securing a sufficient supply of quality coal for the navy.³⁵

As well as its reliance on two sources of coal, the other obvious weakness in Britain’s coaling infrastructure was its scale. Whilst it was easier to control the coal shipped from Wales, distance made the metropolitan oversight of the sub-imperial coaling network based in Sydney

³⁰ ‘The Naval Manœuvres Abandoned’, *Standard*, 20 June 1898.

³¹ ‘Welsh Coal for the Navy’, *Isle of Man Times*, 10 September 1898.

³² ‘Letter from R.C. Webster’, *Morning Post*, 8 April 1898.

³³ Glamorgan archive guides: http://www.archiveswales.org.uk/anw/get_collection.php?inst_id=33&coll_id=2318&expand.

³⁴ G.R. Carter, ‘The Coal Strike in South Wales’, *Economic Journal*, 25, no. 99 (1915), 453–465.

³⁵ Jon Tetsuro Sumida, ‘British Naval Operational Logistics, 1914–1918’, *Journal of Military History*, 57, 3 (1993), 471.

particularly difficult. Indeed, the Admiralty's lack of knowledge of the coaling infrastructure existing in Australasia meant that they were even more reliant on agents in Sydney than they were on those in Cardiff. Whilst the autonomy of local agents allowed them to best negotiate the complexities of coal supply on behalf of the navy, it also caused various problems for the Admiralty. The vast distance and time difference meant that these often involved difficulty in communication. On occasion, coal shipped to a station was found to be below the standard expected and was returned with a complaint from the naval officer in charge, but these issues were not always communicated with London, meaning that little could be done about it.³⁶ There also seemed to be occasional problems with communication between agents and the stations. For example, in 1903, Admiral Cyprian Bridge, Commander-in-Chief of the China Station, complained that no telegram had been sent to inform him of when a coal shipment had actually left port. The only documentation he had was the agreement form, which was dated 6 March, yet by 17 July nothing had been heard of the shipment. It later transpired that it had not actually left until 13 June, 15 and a half weeks after the form had been sent.³⁷

Before the Admiralty instigated changes to its coaling arrangements as a part of the coal consciousness of the 1880s, a seeming lack of interest in the fuel supply at far-off stations also risked corruption. With such power over the Admiralty coal supply, it was inevitable that disgruntled colliery owners would accuse agents of favouritism, and as a result complaints were often baseless. Yet very serious accusations of corruption were levelled at Messrs. Parbury and Lamb in 1875, exacerbated by the fact they emanated from senior naval officers. Not only was it suggested that the agents were supplying the Australia Station with low-quality fuel but also that they were profiting by doing this by using collieries in which they had large interests.³⁸ Although the matter was dismissed by the Admiralty, the coal supply was soon changed even if the agents were not.

³⁶'Letter of 31 August 1877, Storekeeper's Out-letters to the Admiralty 1875-1878', NMM, HAL D/5.

³⁷'Letter from Cyprian Bridge to Admiralty, 25 July 1903', TNA, ADM 125/56.

³⁸'Letter from H.M.S. *Clio* at Sydney to Admiralty, 22 March 1873', TNA, ADM 122/22.

Few problems were this serious, however, and most were solved by consultation with the agents followed by a change of practice.³⁹ The global system as a whole in fact worked remarkably well, and there is no indication of the Admiralty ever considering taking command of any facet of the system at any point. Much of this can be attributed to the measures undertaken from the 1880s onward to improve the navy's ability to mobilise swiftly at the outbreak of war. These were discussed at a departmental level in the previous chapter, but it is pertinent to assess how this worked in practice on the ground. As has been shown, Britain's ability to mobilise in a war scare was tested through naval manoeuvres that began in the late 1880s, but it was not until the twentieth century that arrangements for the continuance of supply of coal in an extended naval war were finalised given that a threat of a major European war was looming large.

By 1900, the Admiralty was increasingly improving Britain's ability to swiftly mobilise the Royal Navy, and ensuring a quality coal supply was an important part of this ability. A statement from the Admiralty to its new agents—Messrs. Harrison, Moore and Company based in Bute Docks, Cardiff—shows how the Admiralty planned to provide the navy with coal at short notice should Britain be involved in a naval war. "Special arrangements" were made with several bodies to ensure adequate and swift supply and, to ensure that enough volume was shipped, the agents also were to make arrangements for mobilisation in the other South Wales ports. The navy needed to make sure that each part of the process of supply was prepared for an emergency. Thus, it made arrangements with principal Welsh collieries to provide coal in emergencies, with railway companies to provide transportation, and with docks "to give preference in loading to all colliers taken up on admiralty account." Although the Director of Navy Contracts was responsible for overseeing the agents and colliers, as with standard arrangements, mobilisation would effectively be carried out by private businesses.⁴⁰

A war scare with Germany in 1911 tested these arrangements to the fullest extent. With the fleet needed in the North Sea, the Admiralty coordinated the movement of Welsh coal, by ship and railway, to the northeast

³⁹ 'Letter from Cyprian Bridge to Admiralty, 25 July 1903', TNA, ADM 125/56.

⁴⁰ 'Instructions to the Admiralty Agents in South Wales for Shipping Coal', TNA, ADM 116/903.

of England and Scotland.⁴¹ These preparations meant that at the outbreak of the First World War the Admiralty was able to implement strategies swiftly for coaling in war. Coal trains, colloquially known as “Jellicoe Specials” after the Commander-in-Chief of the Home Fleet, were scheduled from South Wales to Grangemouth to take fuel to the fleet at Scapa Flow. With agreements in place with collieries, the navy could be assured that coal stocks were always available for the use of the fleet even after submarine attacks recued the collier fleet.⁴² By 1914, then, a coaling consensus in Britain had not only affected strategic thinking but also had real world effects on the ground, thus allowing for swift fleet mobilisation through the availability of coal as well as methods to transport it at short notice. Whilst it is true that the Royal Navy did not possess “a logistical establishment capable of supporting its [fleet] in terms of ... fuelling,” and instead had to rely on the commercial sector, it had done this throughout the nineteenth century in supplying coal to the fleet. Although this became an issue with regards to oil supply, a lack of anticipation for the length of the war was far more problematic than coal logistics.⁴³

FAILURES OF FOREIGN INFRASTRUCTURE

Although the coal question may have caused consternation, and in some cases hyperbole, in Britain, much of what was reported, for example in *The Truth About Coaling Stations*, was designed for a specific purpose: to increase naval estimates and defence spending. Yet this view of British weakness was not held elsewhere; Britain's rivals not only viewed its ability to coal its navy globally with envy but were also very aware of the fallibilities of their own ability to re-fuel outside their own waters. This was perhaps best illustrated when, in attempting to expand their influence further, their lack of infrastructure was highlighted by disruption and sometimes disaster.

An article in the *New York Times* from 1892 perfectly encapsulates this reality. The author castigates the provision of infrastructure for the

⁴¹ ‘Coal For The Navy’, *The Times*, 12 September 1911.

⁴² J.D. Davies, *Britannia's Dragon: A Naval History of Wales* (Stroud: History Press, 2013), 195; *Border Watch (South Australia)*, 1 August 1914; Tetsuro Sumida, ‘British Naval Operational Logistics, 1914–1918’, 475.

⁴³ Tetsuro Sumida, ‘British Naval Operational Logistics, 1914–1918’, 479.

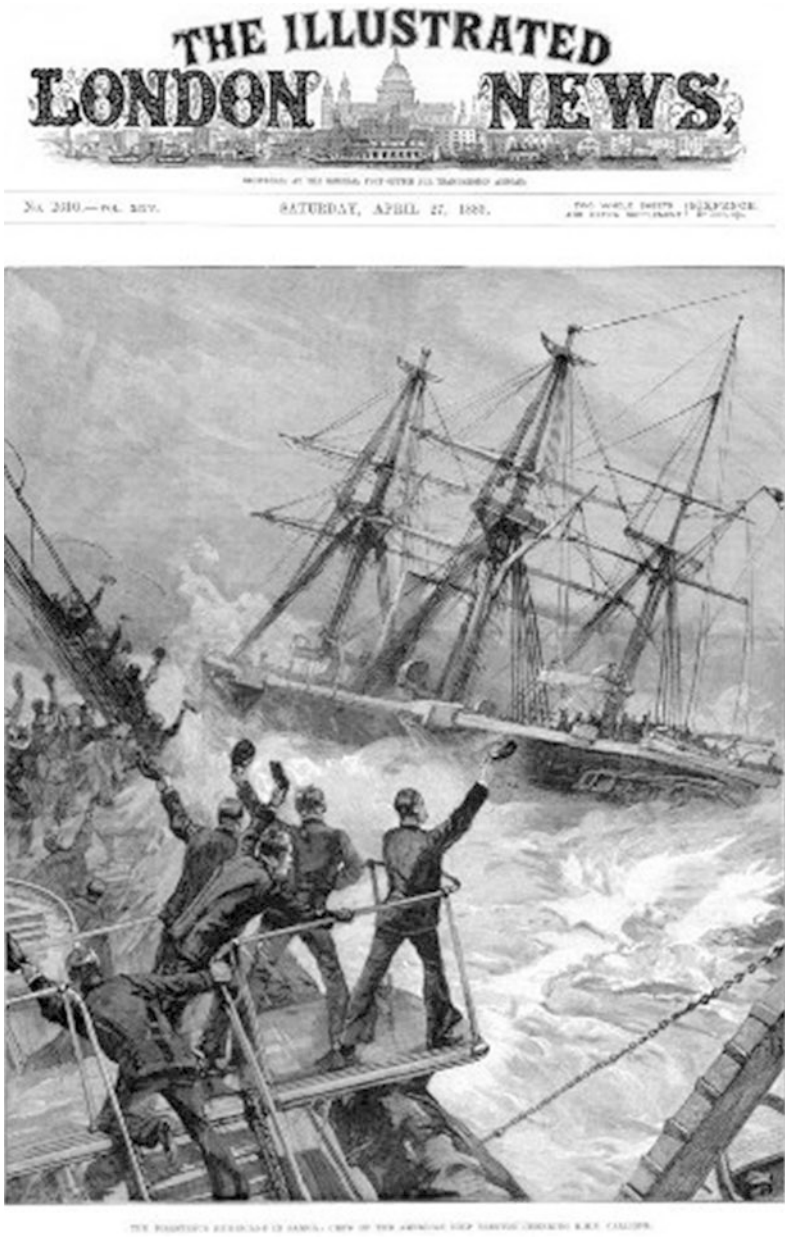


Fig. 5.3 The front page of the *London Illustrated News*, 11 May 1889

US Navy but does so by highlighting its inferiority to that of Britain. Responding to “recent troubles on the west coast of South America” the article suggests that it was fortunate that peace had been kept because a lack of coaling infrastructure “would have contributed largely to the embarrassment and retardation of the operations of the war vessels.” He argues that in the USA, “the lack of coaling stations has always been deplored by naval officers and by the Navy Department, so that it is difficult to understand why none has been provided as a necessary part of the new naval establishment.” This was, of course, in contrast to Britain, which “in the matter of coaling stations ... stands at the head.”⁴⁴

This was not the first time concerns had been aired about the strength of the navy beyond its own waters. Indeed, Robert Louis Stevenson posited that it was not Mahan, but the hurricane of March 13, 1889, in Samoa that awakened the US to the importance of seapower to state power.⁴⁵ The catastrophic storm caused damage to “every vessel in the harbour or shore except the English man-of-war *Calliope*, which got to sea.” Of those in harbour, two American ships—the *Trenton* and the *Vandalia*—as well as two German ships—the *Adler* and the *Eber*—were a total loss, and two more ships—the American *Nipsic* and German *Olga*—were badly damaged. Despite many of the crews being saved, the loss of life was horrific. Reports state that “the *Vandalia* lost four officers and thirty-nine men ... and the *Nipsic* lost seven men.” In addition, “German losses are ninety-six,” bringing the total loss of life to 146.⁴⁶

Such a tragedy attracted attention across the world with San Francisco particularly gripped by the news. It also appeared on the front page of the press in Britain (see Fig. 5.3) and in the writings of Robert Louis Stevenson, who was a resident of Samoa at the time.⁴⁷ This attention was partly because of the tragic loss of life but also because the disaster occurred at a moment of high geopolitical tension between the United States and Germany over control of the island. Thus, what is especially significant about this event was not necessarily the reasons as to why the

⁴⁴ *New York Times*, 6 March 1892.

⁴⁵ Oliver Warner, ‘Storm at Samoa’ *Mariner’s Mirror*, 44:4 (1958), 266.

⁴⁶ ‘Hurricane in Samoa’, *New York Herald*, 31 March 1889; D.K. Brown, ‘H.M.S. *Calliope* and The Samoa Hurricane’, *Journal of Naval Engineering*, 34:2 (1993), 418–424; J.A.C. Gray, ‘The Apia Hurricane of 1889’, *US Naval Institute Proceedings*, June 1960, 89.

⁴⁷ Robert Louis Stevenson, *A Footnote to History, Eight Years of Trouble in Samoa* (New York: Charles Scribner’s Sons, 1895), 244–267.

British ship was able to escape whilst its rivals' ships were not, but how it fitted into a wider perception of naval weakness in the United States.

Although the main reason for the escape of *Calliope* was her more powerful engines, which were capable of sixteen knots, parts of the press began to speculate as to whether a lack of infrastructure was the true cause.⁴⁸ Particularly present in these discussions was the issue of coal and coaling stations, a contentious topic in the American press at this time—one which had been pursued by members of Congress. As such, as one American newspaper reported “the disaster, its causes and its effects, were the uppermost topics of conversation here to-day, both in naval circles and among the general public.” The point was made that although the British ship had easily been able to refuel with Westport coal at Auckland on its way to Apia, both the American and German ships had arrived without coal and, despite possessions in the Pacific, had been unable to find quality fuel.⁴⁹

However, these reports were speculation, and a prominent article in the *New York Herald* suggesting this theory was tellingly filed from Washington, DC, not Apia. Yet despite basing it on “common belief” because “naval officers were loathed to advance theories as to an event of whose details they were in ignorance,” it was still sub-headed with the conclusion “Lost for Lack of Coal.”⁵⁰ In reality, both claims made by the article, that the ships' fires had not been burning, and that they had insufficient coal, were false, it was simply that the winds were too strong for the ships to escape.⁵¹ A further reason given was that the captain of the *Calliope*, Henry Kane, had previous experience of Pacific storms.⁵² However, these rumours were given some credence by British reports. The engineer aboard the *Calliope* “attributed her survival to the quality

⁴⁸This is made clear by the officers' reports compiled in the 1889 Annual Report of the Secretary of the Navy. ‘The Hurricane’, *Atchison Daily Champion*, 14 April 1889.

⁴⁹‘Our Naval Establishment in the Pacific’, *San Francisco Daily Evening Bulletin*, 1 April 1889; ‘The disaster to our navy’, *Raleigh News and Observer*, 2 April 1889.

⁵⁰*Ibid.* The lack of coal was also reported in ‘The Samoa Storm’, *The Atchison Daily Globe*, 1 April 1889.

⁵¹‘Samoa Stories’, *Los Angeles Times*, 15 April 1889; ‘A Naval Object Lesson’, *San Francisco Daily Evening Bulletin*, 15 April 1889; ‘The Wreck at Samoa’, *Vermont Watchman*, 24 April 1889; D.K. Brown, ‘H.M.S. *Calliope* and The Samoa Hurricane’, 423.

⁵²‘The Disaster’, *San Francisco Daily Evening Bulletin*, 30 March 1889, 2; ‘Drowned at Apia’, *The Milwaukee Sentinel*, 31 March 1889.

of the coal,” a statement that confirmed “Westport’s coal reputation, and the British Admiralty stationed a coal-purchasing agent in Westport.”⁵³

With an ongoing debate in the USA about whether its presence in Samoa was needed, especially because expected trade with Australia had failed to materialise, the event was used to put forward the view that investment in the Pacific was insufficient. The *New York Herald* illustrated this with the inaccurate claim that the American coaling station of Pago-Pago, just thirty miles from Apia, had not been adequately supplied, and thus the ships were stranded in harbour. Using this spurious example, it complained that although “the island was acquired in 1872 ... our government has not apparently discovered in seventeen years the strategic importance of having an ample supply of coal there.” It was then pointed out that “the nearest point at which coal could be obtained was Honolulu, 2100 miles away.”⁵⁴ Although this information was inaccurate, such editorials show how an assumption of a weakness of American coaling infrastructure was embedded in these discussions.

Doubts about the ability of the US Navy to project power in the Pacific were exacerbated further by the fact that those who had been lucky enough to survive the ordeal faced a long wait before they could move on. Although coal had been sent nearly a month before the hurricane, the wooden ship carrying the coal from San Francisco would not arrive for another four weeks. Another ship, sent from Philadelphia, would have to navigate around Cape Horn to reach the Pacific, and thus was “months” away.⁵⁵ Thus, even though the storm was an unprecedented and unforeseeable disaster, and the causes of the loss of the ships and so many lives were misattributed, these reports fed the idea that Americans desperately needed a coaling station in the South Pacific. Furthermore, in the public

⁵³Alan Sherwood and Jock Phillips, ‘Coal and coal mining—The nineteenth century’, *Te Ara—the Encyclopedia of New Zealand*, <http://www.TeAra.govt.nz/en/coal-and-coal-mining/page-3>. Accessed 16 February 2017; Warner, ‘Storm at Samoa’, 288.

⁵⁴Ibid.

⁵⁵*New York Herald*, 31 March 1889; ‘The Samoa Storm’, *The Atchison Daily Globe*, 1 April 1889. Original correspondence can be found in British Parliamentary Papers, 1889 [C.5756], *H.M.S. “Calliope.” Report of the hurricane at Samoa on the 16 March 1889*. Other accounts can be found in TNA, ADM 1/6969; *New Zealand Herald*, 30 March 1889; John Bach, *The Australia Station: A History of the Royal Navy in the South West Pacific, 1821–1913* (Kensington, NSW: NSW University Press, 1986), 220.

mind, it showed that Germany and the United States, despite growing as naval powers, were not able to match Great Britain in terms of naval coaling infrastructure, and therefore its global influence.

Yet these fears were not satiated. Eighteen years after the Samoan Hurricane, and fifteen years after the *New York Times* article, the famous American “Great White Fleet” showed that the US Navy still did not possess sufficient fuelling infrastructure to operate globally. This was important because after victory in the Spanish–American War in 1898, the USA looked to cement its place as a global maritime power. This was encapsulated by Theodore Roosevelt’s claim that “the United States had ‘no choice’” as to whether it would play a great part in the world.⁵⁶ As part of this change, sixteen white-hulled, state-of-the-art American battleships embarked on a circumnavigation of the world in 1907 and returned in 1909. Such a blatant show of naval force was designed to both perform a diplomatic mission, but it was also as a piece of naval theatre announcing American naval power to the world. The tour showed the ships to be cutting edge, breaking several world records as well as being capable of long-distance operations.

However, it also exposed weaknesses in the USA’s ability to project power across the world. The US Navy had few naval facilities beyond its own waters as well as only eight colliers, meaning that its ability to act on a global scale was often at the whim of the British. Even in Honolulu, which had been annexed by the USA, the fleet relied on a British collier to bring them coal. As the article of 1892 had predicted, ship numbers and technology mattered little without infrastructure with which to coal the fleet. To this end, as one contemporary American suggested, “it had been unwise to display the nation’s inability to coal and supply its own fleets.”⁵⁷

To make up for this lack of infrastructure, the fleet took on more coal than the ships were designed for, storing coal on the upper decks, thus leaving the men little room for manoeuvre, but even this could not prevent the humiliation that came when the fleet arrived in Australia.⁵⁸

⁵⁶J.R. Reckner, *Teddy Roosevelt’s Great White Fleet*, (Annapolis: Naval Institute Press, 1988), x.

⁵⁷Robert A. Hart, *The Great White Fleet; Its Voyage around the World, 1907–1909* (Boston: Little, 1965), 300.

⁵⁸Reckner, *Teddy Roosevelt’s Great White Fleet*, 89, 147.

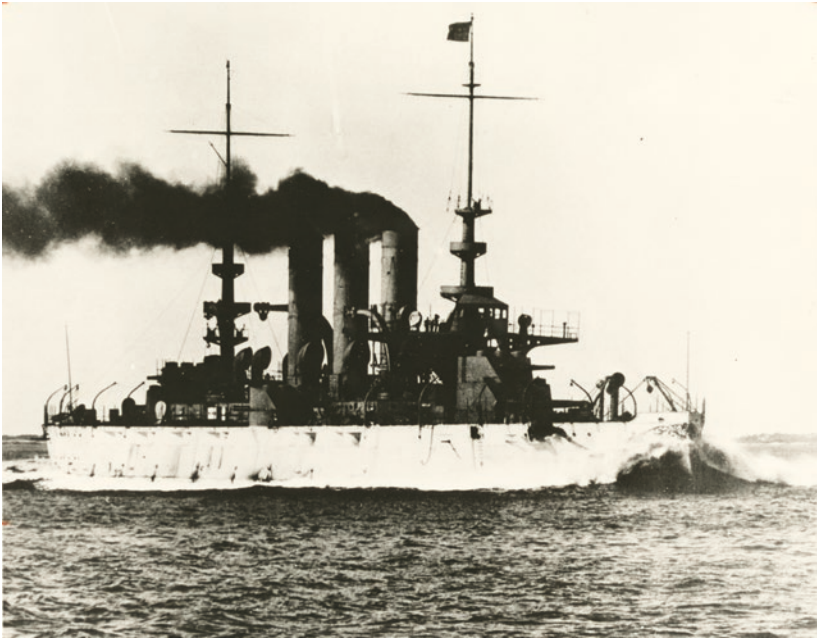


Fig. 5.4 USS Georgia (BB-15), flagship of the 2nd Division of the Great White Fleet in Auckland. Note the thick black smoke. Courtesy of U.S. Naval Institute Archives

Relying on the arrangements of the Bureau of Equipment, the fleet arrived to the news that the 25,000 tons of coal for their use had failed to arrive. The bureau, when faced with operations on the other side of the Pacific, had failed to allow for sufficient lead time, and the fleet was stranded. Suggestions were made that this was an attempt by the British, whose colliers were being used to transport the coal, to deliberately embarrass the Americans, but in reality the fault lay with the hurried and negligent planning of a state unused to having to supply far beyond its own shores.⁵⁹

Admiral Sperry, in command of the fleet, was left in the unenviable situation of attempting to save face by finding alternative arrangements.

⁵⁹Ibid., 105, 160.

He professed “great embarrassment ... for it illustrated how easily Great Britain could control the fleet’s behaviour, stranding it halfway round the world, should the need arise, and causing it to be a ‘laughing stock.’” The Royal Navy refused to supply the fleet from their own stacks, as had been decreed by the Admiralty as standard practice, and Sperry was thus forced to find commercial supply at each station to which the fleet called in. At Auckland, Sydney, Melbourne, and Albany, he arranged to be restocked with generally poor-grade Australian coal. A similar situation occurred at Port Saïd, where again the Admiral was forced to negotiate with commercial coal dealers.⁶⁰ Delays also occurred at Apia, Samoa, where there was no coal on arrival. Reports from the fleet show an underlying uncertainty amongst personnel: “days went by ... days of anxiety ... and still no coal.” The fleet arrived on the island on 20 September, yet even with a delivery on 4 October there was only enough coal for four cruisers, with the remaining ships stranded until 7 October.⁶¹

It was not just the humiliation of an Admiral being reduced to soliciting coal at the last minute that reflected badly on the US Navy, but the effects that the delays in supply had on progress. This was compounded by the poor quality of the Australian coal, which reduced much of the fleet to the most economical speed. Moreover, it had serious effects on the theatrical effect of the fleet—not only was it often delayed, in addition the thick black smoke produced by the substandard coal somewhat reduced the visual brilliance of the bright white hulls (see Fig. 5.4).

As had been feared by the *New York Times* in 1892, a lack of action by the US government on coaling stations had precipitated an acutely embarrassing situation for its navy. A lack of control over the infrastructure for the coaling of the fleet had severely undermined the imagined effect of the fleet on those who witnessed it. Echoing the editorial after the war scare in the South Pacific, it was concluded that “had war broken out while the fleet was in distant waters, it would have been immobilised by lack of logistical support.”⁶² The US may have produced “the greatest fleet of formidable ships that the world has ever seen,” but it was almost

⁶⁰Hart, *The Great White Fleet*, 198, 274. A good summary of some of Sperry’s ingenuity in sourcing this coal can be found in Reckner, *Teddy Roosevelt’s Great White Fleet*, 103–104.

⁶¹Hart, *The Great White Fleet*, 201, 214.

⁶²Reckner, *Teddy Roosevelt’s Great White Fleet*, 161.

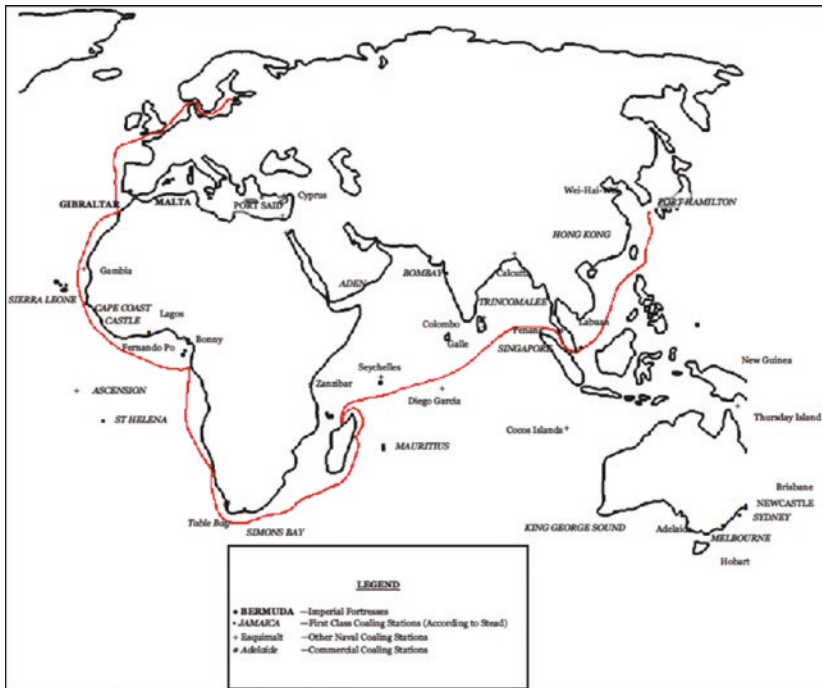


Fig. 5.5 The route taken by the Russian Baltic Fleet in 1905 with British coal-ing stations marked. The British were able to both deny the Russians use of their many stations as well as shadow the Baltic fleet because they had a secure fuel supply

solely reliant on “the indulgence of foreign powers” if it left its own waters.⁶³ Although Senator Hale did not explicitly mention Britain, it was clear that of these “foreign powers,” it was the infrastructure of the Royal Navy on which the US Navy relied most of all. Possessing both the best steam coal in the world, its export, and much of the stations it was sent to, Britain not only controlled its own fuelling but also those of rival navies. After the return of the fleet in 1909, the US government instigated measures to rectify this situation with a new naval programme, but this achieved little: at the outbreak of war in 1914, the United States

⁶³Hart, *The Great White Fleet*, 33, 55.

owned just seven colliers. The problem of fuelling far from their own waters was not solved until the age of oil.⁶⁴

If a lack of coaling infrastructure caused the US consternation and, at worst, embarrassment, it was far more catastrophic for Russia. Its lack of naval infrastructure beyond its own waters caused significant problems for its Baltic fleet, which was aiming to join the Russo–Japanese war in the Far East in 1905.⁶⁵ Britain, through its global power, not only forced the fleet to steam by way of the Cape by refusing it the use of the Suez Canal, which extended the journey by some 3000 nautical miles, it also denied its fuelling opportunities (see Fig. 5.5). By doing so, the fleet faced major delays in addition to its 18,000-mile journey.

With Britain refusing to supply any coal to the Russians, the fleet attempted to make use of the French coaling infrastructure. Yet even in doing this, they faced British opposition. At some stations, “the French local authorities, to begin with, gave [the fleet] permission to coal ship. Then, afraid of protests from the Japanese and the British, they revoked their consent.”⁶⁶ At others, “under British and Japanese pressure, the French authorities had selected for us a much less convenient spot,” thus delaying refuelling.⁶⁷ Although the fleet could use the German infrastructure, for example, in Great Fish Bay in Portuguese Angola, despite Portuguese protests and Angra Pequena in German Southwest Africa, its paucity did little to alleviate long delays.⁶⁸

Not only did the fleet struggle to fuel, it also constantly encountered British ships and possessions and were even escorted by British ships around the Iberian coast.⁶⁹ The constant presence of Royal Navy ships, fuelled from their plethora of coaling stations, as shown on the map, caused one Russian to remark “how were we to continue when

⁶⁴Reckner, *Teddy Roosevelt's Great White Fleet*, 161; Friedrich Wilhelm Rüstow, *The War for the Rhine Frontier 1870: Its Political and Military History*, trans. J.L. Needham, vol. III (Edinburgh: William Blackwood and Sons, 1872).

⁶⁵K. Pleshakov, *The Tsar's last armada: the epic journey to the Battle of Tsushima*, (New York: Basic Books, 2002).

⁶⁶A. Novikoff-Priboy, (trans. Eden and Cedar Paul), *Tsushima* (New York: Alfred A. Knopf, 1937, 48.

⁶⁷Novikoff-Priboy, *Tsushima*, 59.

⁶⁸*Ibid.*, 53.

⁶⁹E.S. Politovsky (trans. Major F.R. Godfrey), *From Libau to Tsushima: a narrative of the voyage of Admiral Rojdestvensky's fleet* (London: John Murray, 1906), 257.

there was not a single port on our route where we could coal or revictual unmolested?"⁷⁰

Those who partook in that fateful voyage were quick to understand the role a lack of coal-supply control would play in their journey. The Engineer-in-Chief, Eugene Politovsky, was unsurprisingly particularly aware of the issues faced by the fleet. He recorded in his diary: "Coal! It is our weak spot. Our comings, our goings, our voyage, and even our success depend on coal."⁷¹ This anxiety quickly spread to the rest of the crews. A. Novikoff-Priboy echoed the mood when he suggested that "coal had developed into an idol, to which we sacrificed strength, health, and comfort. We thought only in terms of coal, which had become a sort of black veil hiding all else, as if the business of the squadron had been, not to fight, but simply to get to Japan."⁷²

It soon became clear that as a result of these delays, the fleet faced a precarious future. Recognising this, Politovsky lamented the lack of infrastructure under Russian control, suggesting that "the coaling question is the question of life." The situation also had serious effects on crew morale. The dearth of places to refuel meant that each ship had to take on enormous amounts of coal where it could, which had to be stored outside of its bunkers, both making life uncomfortable for the sailors and severely hampering the fighting and sailing ability of the ship.⁷³ Arriving in the Tsushima Strait heavily fouled, suffering from a lack of crucial maintenance, and with poor-quality coal, the ships suffered a significant reduction in performance. The subsequent battle was a disaster for Russia, which lost all of its battleships, and a huge number of men with some 4380 killed and 5917 captured including two admirals.⁷⁴

The plight of the Baltic fleet clearly showed the power held by Britain through its control of both quality coal and its infrastructure worldwide. Able to deny its rivals a sure supply of fuel, Britain was able to severely hamper their operations or to cease them entirely. Furthermore, the ability to refuel across the world allowed British ships to intimidate neutral

⁷⁰Novikoff-Priboy, *Tsushima*, 48.

⁷¹Politovsky, *From Libau to Tsushima*, 257.

⁷²Novikoff-Priboy, *Tsushima*, 90.

⁷³Politovsky, *From Libau to Tsushima*, 257.

⁷⁴R. Forczyk, *Russian battleship vs Japanese battleship: Yellow Sea 1904–1905*, Oxford, 2009, 32.

powers, thus stopping them from providing fuel to the Russians. Such power allowed Britain to inconvenience heavily, if not critically damage, a potential enemy's navy without having to engage in battle at all.

This situation stood Britain in good stead in the event of a global war. Its extensive coaling facilities meant it did not have to rely on neutral powers, whereas any potential enemy would be forced to if they were to operate globally. Even if the Treaty of Paris of 1856 banned the supply of belligerents by neutral powers, Britain knew it would be "difficult to enforce the rules; and it is doubtful whether the ships of a strong naval power would submit to their operations being crippled for want of coal by the regulations of a small state in a distant port."⁷⁵ Even if a rival were to refuel at a neutral port, however, Britain still held a significant advantage. Whilst Welsh coal merchants freely traded with foreign navies in peacetime, this would be prevented in war. Thus, any enemy would lose their primary source of high quality coal (and any in storage would soon degrade) and have to move instead to a substandard fuel. Moreover, as we have seen, even in peacetime Britain's control of the coal across the world allowed it to slow, delay, or even immobilise its rivals. In war, it could further disrupt its enemies' supplies through fuel denial from its allies (such as Portugal and its possessions) and even neutral countries (particularly in the informal empire) where it could exert economic pressure to prevent enemies being fuelled in those ports.

CONCLUSIONS

In the 1880s, with significant increases in the size of both ships and fleets along with growing geopolitical tension, Britain became more aware of the need to ensure that adequate amounts of quality fuel existed at all stations whenever a warship required it. Yet it also had to make sure that funds were not wasted on overestimates that would then deteriorate in storage. Thus, coal consciousness not only encompassed defensive concerns but also those of supply and stock control.

In recognition of these issues, the Admiralty began to standardise the processes of both coal purchase and shipment as well as reporting from station about stocks and usage. In doing so, it streamlined the naval coaling infrastructure, thus allowing the coal purchase to be more efficient

⁷⁵Rüstow, *The War for the Rhine Frontier*.

and the export amounts to be more accurate. It also recognised the importance of coal to the swift mobilisation of the navy in war. Thus, as part of wider efforts for the Admiralty to ensure the navy was prepared for a future war, it made contingency arrangements to ensure that coal of sufficient quality could be immediately bought and exported to Britain's stations. These procedures allowed the Admiralty to be able to react quickly and efficiently to crises without posing a hugely detrimental effect on the performance of the Royal Navy.

The control it held over coal supply, transport, and storage also allowed it a key advantage over its rivals outside of local waters. Their reliance on the British infrastructure meant that a denial of facilities and fuel supply could easily disrupt or even halt operations if it so wished. Furthermore, being able to coal its own warships, it could use its superior ability to function in the wider world to coerce naval powers into refusing to supply an enemy. These factors meant that while the British naval infrastructure was highly complicated, unlike that of its rivals, it remained an "enormous system under ... splendid control."⁷⁶

⁷⁶ *New York Times*, 6 March 1892.

PART III

Coaling Labour

“Gifted with Strength that Is not Human”: Using Indigenous Labour for Coaling

This book thus far has shown how the efficient and safe supply of good-quality coal to British warships on a global scale had geopolitical ramifications both in terms of imperial defence and infrastructure. These, largely discussed in Britain and arranged with high-ranking officers abroad, tended necessarily to treat the coal question as a global issue or at least one that concerned a large geographical area. However, the shift from sail to steam also had enormous effects on individual stations, as well as those that lived in them or indeed those who moved to them. This was perhaps most notable and visible in the changes caused by the need for the means to facilitate the storage and movement of coal.

The advent of steam shipping not only changed the geopolitical status of coaling stations but also the station itself. The use of steamships, not only in navies but also in trading vessels, necessitated important changes in ports across the world. These changes happened both at large commercial stations, which were used by British warships, and at larger naval stations, which stocked huge amounts of coal. These changes affected a station's landscape, labour forces, and indigenous populations, and it is to these changes to which this chapter now turns its attention.

The need to accommodate steamships had obvious visible effects on the landscape of the port or station. In order to accommodate the growing number and size of ships, increasing numbers of deep water berths were needed, thus necessitating the improvement of natural harbours or the creation of artificial ones. This tended to lead to the concentration

of facilities at large ports, and indeed we see British warships tending to coal at these stations far more regularly than at others.¹ Such facilities required large amounts of labour to build, maintain, and operate, and they formed large pieces of architecture that physically dominated the coastlines. Thus, the switch to steam power caused very visible physical change to station landscapes.

The combination of increasing steamship numbers and the concentration of facilities at larger stations had several implications for these places beyond merely the size of harbours and the number of deep-water berths. Whilst for commercial ships, this might involve facilities for the movement of goods and people, in terms of warships the most important of these developments at stations was the requirement for the storage and movement of large amounts of quality coal. Indeed, the huge stacks of coal, jetties, and lighters, which became commonplace at these stations, were an obvious physical transformation of the port landscape created by the shift from wind to coal power. Such facilities were evidence of the storage of fuel at various stages of its movement from collier to shore and then to ship, but further infrastructure was needed in the movement from each to the next. These processes were not autonomous, however, and few were mechanised to any extent. Thus, steam power not only required new physical features at stations but also an enlarged labour force to unload colliers, ensure safe storage, and load the coal onto visiting warships. Importantly, then, coaling stations were not just strategic points but also working environments requiring substantial human labour.

The advent of coal-powered warships thus had important effects on the populations of the settlements that surrounded the stations. In some cases, labour could be attracted from the environs, but in others—where work was plentiful already or human labour was in short supply—workers had to be enticed or brought from further afield. In some cases, with some workers coming from hundreds of miles away, this created new racial dynamics to stations with different ethnic groups making up the new labouring forces and the general population. Although offering gainful employment to these newcomers, an often-deliberate effort between employers to suppress wages in places with few other opportunities meant that stations became sites of economic exploitation where

¹K. Dharmasena, *The Port and Dock Workers of Colombo, 1860–1960, The Great Circle*, 7, 2, (1985), 100.

long and arduous work was combined with poor standards of living, and in the environs of some stations, at least, we see the emergence of slums.

The regular arrival of white Britons at these foreign places, in the form of sailors aboard warships seeking coal, also makes these stations interesting points of cultural, imperial, and encounters and racial interaction. Indeed, the plethora of accounts of coaling at overseas stations, recorded by the sailors themselves, reveals both an interest in the different labour forces found at these places as well as the ingrained racial and imperial mindsets held at this time. These recollections also show how sailors made comparisons between themselves and indigenous heavers, which allow us a glimpse as to how naval men viewed themselves, as imperialists, white men, Britons, and men serving in the Royal Navy.

In analysing these sites of labour, this chapter reframes our understanding of the geography of empire during this period. Although relatively small and rarely mentioned in histories of empire, these were crucial nodes for British power across the world, which often relied on the labour of indigenous and transplanted actors rarely considered by historians.

COALING FACILITIES

As seen in Fig. 6.1, providing the means to store coal altered the landscape of a station in a particularly visible way. These facilities were required because there was little point in spending considerable time and money on determining the best fuel to use for state-of-the-art warships if it did not reach their stokeholds in optimum condition. Much of this came down to management of stock levels, as has already been described, but the method of storing coal in itself could have huge impacts on the degradation of the fuel. Leaving coal on the dockside was undesirable, and concerns about the deterioration of uncovered coal were aired in Parliament. However, building extensive sheds was expensive and potentially posed a fire risk, so large stacks of coal continued to be stored in the open. Perhaps the most serious of these conflagrations was at Coaling Point, Portsmouth, in 1898, where a fire burned for "several days," killing the naval store-keeper, Mr. Hine.² Storage facilities therefore appear to have only been built in larger stations or when other

² *Navy and Army Illustrated*, March 11 1898.



Fig. 6.1 Simon's Town coaling station c. 1900. Note the coal hulks in the harbour and the piles of uncovered coal on shore. From M.E. Donoghue, *The Log of H.M.S. "Crescent," Flag-Ship, Cape Station, 1904–1907*

improvements were being made such as at the new dockyard at Simon's Town, Cape Colony, in the early twentieth century.³ Outside of these cases, it often remained open to the weather, whether on the dockside or in hulks stationed in the harbour, although coal was in general no longer stored loose on beaches by the 1880s. Old warships were often used as hulks, thus using otherwise obsolete vessels.

Of course, coal did not move from these places of storage to warships on its own. Toward the end of our period, at the beginning of the twentieth century, it became more common to use cranes at the larger Mediterranean and British naval stations. Some of the early cranes

³Navy Estimates 1899–1900, House of Commons Debate, 13 March 1899, *Hansard*, vol. 68 cols 573–641; W.H. Rice, *Simon's Town Dockyard: The First 100 Years* (Cape Town: Simon's Town Historical Society, 2010), 7.

installed on quaysides actually did little in terms of the speed of coaling and could only load five or six bags at a time, although they did save back-breaking labour.⁴ The machinery installed at some larger stations in the last decade of the nineteenth century, such as at Portsmouth and Portland, included more advanced hydraulic cranes and hoists for receiving and discharging coal. Although each hoist could reportedly discharge at 500 tons per hour, a rate approximately double what could be achieved with manual labour, only cruisers could coal alongside. Battleships therefore still had to be coaled by lighter, barges that took the coal to the anchorages, although the bags were transferred from the dockside to these by crane.⁵ In other stations, the use of mechanisation was minimal. This was largely because it was enormously expensive to implement; moreover, the remarkable efficiency of coaling using human labour made the benefits of mechanisation marginal. This was also reflected in other port activities in the commercial sector, especially in the Indian Ocean world, where extensive casual human labour was used in lieu of mechanisation.⁶

For much of this period, then, even with the advent of hydraulic cranes, coal was still largely loaded by hand with the use of a simple hoist.⁷ Thus, a crucial part of the shift from sail to steam was the need for thousands of workers to load the hundreds of tons of heavy, dirty fuel onto Britain's warships. With these vessels generally needing to refuel at least every week, strategically important stations in particular needed extensive coaling labour. As both the numbers of vessels and the amount of fuel ships required increased in the late nineteenth and early twentieth centuries, so did the amount of labour required as this period continued.

The labour force employed by naval ships depended on the place and method of coaling, but these can be generally divided into two distinct groups: the labour of local populations or migrant workers stationed in these places, as discussed here, and the labour of the ship, which is analysed in the next chapter.

⁴David G. Lance, 'Interview with Arthur Ernest Lilley', 1976, Imperial War Museum, 750.

⁵'A Coaling Station at Portsmouth', *The Times*, 27 March 1893.

⁶K. Dharmasena, *The Port and Dock Workers of Colombo*, 100.

⁷David W. Wragg, *Royal Navy Handbook: 1914–1918* (Stroud: Sutton, 2006), 173; David G. Lance, 'Interview with James Anthony Maloney', 1975, Imperial War Museum, 663.

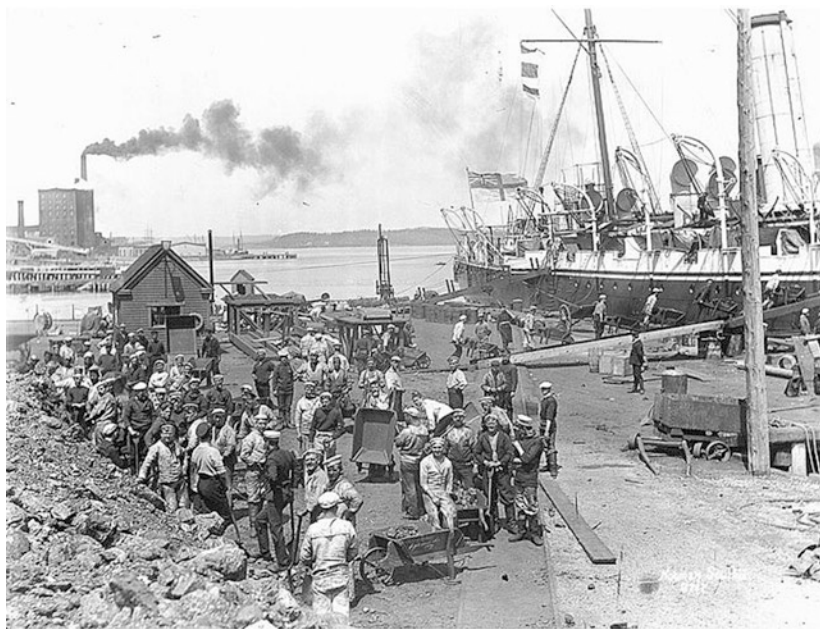


Fig. 6.2 Coaling H.M.S. *Charybdis* at from a jetty at H.M. Dockyard, Halifax c. 1901 to 1902. Nova Scotia Archives, Notman Studio NSARM, accession no. 1983-310 8717 (out of copyright)

LOCAL COALING METHODS

At stations where coaling was completed from a jetty or by lighter the navy often employed specialised local workers to perform the work. These heavers would either complete coaling alone (although the ship's stokers would often be required to manage the bunkers) or work with the ship's crews to get the coal in. Where it is recorded that local workers and crews coaled in tandem, the share of work undertaken by each could vary enormously. Although it could mean that local heavers would deliver the coal aboard and the ship's company would stow the coal away, it could also mean that just a few members of the crew were responsible merely for recording how much coal had been taken aboard.

Coaling from a jetty was generally limited to large stations on trade routes or bases of supply where significant stacks of coal were maintained

and specialist wharves and jetties had been installed (see Fig. 6.2). By the late nineteenth century, as a result of the growing size of battleships and the Royal Navy in general, this method was largely reserved for cruisers and independent vessels rather than fleet warships.⁸ Although techniques could vary from station to station, coal was generally carried on board in baskets from neighbouring stacks, which required considerable shore labour.⁹ These local heavers would begin by filling the coal sacks followed by rigging the ships in one of two arrangements. If the coal was simply to be carried on board, planks were placed between the ship and shore. If this was not possible, stages were rigged and baskets passed up. Although techniques varied between stations, this way of coaling tended to be more efficient than coaling from lighters and especially colliers.¹⁰ This speed of transference could be impeded, however, if shore labour was short or deemed incompetent. In Sydney, for example, the workers of the Union Company left coal in sacks on the wharf, thus leaving the crew of the *Encounter* to carry 135-pound bags 200 yards across springy planks with inclines. Remarkably, the crew still averaged around 60 tons per hour, but this was significantly lower than normal rates.¹¹

LABOUR FORCES

Generally, heavers came from the station of its environs, although some came from the hinterlands to gain employment. There was usually little trouble employing such labour because many of these stations were reliant on these vessels for survival.¹² At stations with large European settler populations, however, there was more difficulty with employing coaling labour, particularly in Australia. Not only did ships face problems with work rate, there was an ability to unionise due to their status as men of British or European descent, which also caused disturbances to regular

⁸Some stations, such as Yokohama, did not allow large warships beyond the breakwater of the harbour.

⁹'Remarks on organisation and coaling (1900)—Capt. E.E. Bradford', NMM, BRD/29.

¹⁰'Remarks on organisation and coaling (1900)—Capt. E.E. Bradford', NMM, BRD/29; 'Portland coaling depot 1903', TNA, ADM 1/7675.

¹¹H.M. Fowler, *The Log of H.M.S. Encounter, Australian Station, 1908–10* (London: Westminster Press, 1910), 104.

¹²G.R. Parker, *The Commission of H.M.S. Implacable, Mediterranean Station, 1901–1904* (London: Westminster Press, 1904), 6–7.

coaling practices particularly after 1900. As a newspaper article from 1912 explains: “the annual report ... shows that even the Imperial Navy in Australian waters has not been free from the inconvenience caused by the demands of unionists.” Sydney was unique in that the coal heavers (or “lumpers” as they were known) had their own union distinct from that of the wharf labourers.¹³ These unions could do little to protect the heavers from working conditions—which necessarily included long hours, horrific conditions, disease, danger, and death—but their actions did ensure that “Sydney coal lumpers earned a higher hourly rate than even wharf labourers, and thus may have been the most highly paid casual labour in Australia at that time.”¹⁴ This was rare, however, and shows the exceptional nature of white heavers in Settler Colonies. This status allowed them to form unions, demand better pay, and have regulated working hours. Furthermore, with a buoyant employment market, labourers were not faced with the choice between heaving and unemployment.

In contrast, the case of Simon’s Town, Cape Colony, shows how labour pools could also be exploited at coaling stations. There the authorities rejected the use of a white labour force in order to avoid strikes, instead using them only for skilled dockside jobs, an explicit example of the existence of racial hierarchies at imperial coaling stations. When the option of using convict labour was objected to by local residents, the Cape ports employed black labour to do the majority of coaling.¹⁵ This appears to have been a decision made on the basis that black Africans were both considered the lowest of all races as well as physically strong. Moreover, many would have been former slaves, freed by the Royal Navy from Arab traders in East Africa, and made indentured labourers in return for their freedom. Thus, although they could not be constrained in the same way as convicts, the employers could

¹³Margo Beasley, ‘Coal Lumpers’, *Dictionary of Sydney*, http://dictionaryofsydney.org/entry/coal_lumpers. See also Margo Beasley, ‘Sarah Dawes and the Coal Lumpers: Absence and Presence on the Sydney Waterfront 1900–1917’, PhD thesis, University of Wollongong, 2004.

¹⁴*Adelaide Register*, 9 August 1912.

¹⁵C. Knox and C. Coetzee, *Victorian Life at the Cape, 1870–1900* (Cape Town: Fernwood Press, 1992), 32; Vivian Bickford-Smith, ‘Black Labour at the Dock at the Beginning of the Twentieth Century’, in C.C. Saunders and H. Phillips (eds.), *Studies in the History of Cape Town* (Cape Town: The Department, 1979), 81–83.

easily exploit these labourers. This was done through their large-scale importation, beginning in 1874, which created a saturated labour market. Thus, despite a high turnover of labour, agreements between firms at Simon's Town fixed wages at low rates, and heavers had little option than to accept these or be replaced and unemployed.¹⁶ The majority of these labourers appear to have come from the Gold Coast and East Africa and were in general preferred to other non-white labour forces. This was largely because "Kaffirs," Indians, Portuguese, and Greeks, all employed in the shipping industry in Cape Colony, were more expensive to employ and thus were only used as stop gaps. This difference in wages suggests that racial hierarchies existed even between types of "non-whites" at these stations.¹⁷ As a result of this influx of labour from the Gold Coast and East Africa, by 1890 the majority of dock workers in the Cape were black and were oppressed with segregation and low pay.¹⁸ Although this was true of the whole of the Cape, it was particularly the case at the Admiralty harbour works at Simon's Town, which were a "principal centre" of "native work."¹⁹

The naval need for coaling labour, as part of wider British colonial needs, also precipitated the movement of Africans in other parts of the continent, too. Indeed, "in West Africa, African labour was widely used for the maintenance and perpetuation of a European colonial trading infrastructure." For example, the Kru, black Africans from Liberia, became an important part of the labour at the port of Freetown—a regular coaling station for British warships—where they commonly moved the fuel aboard. The demands of both trade and the navy, in part caused by a shift from sail to steam, necessitated labour for coaling ships, which subsequently "led to the accidental but permanent establishment of Kru communities"²⁰

On the East Indies and China Stations, too, there were differences in the make up of coaling labour. Some ports—such as Bombay, Madras,

¹⁶Bickford-Smith, 'Black Labour at the Dock at the Beginning of the Twentieth Century', in C.C. Saunders and H. Phillips (eds.), *Studies in the History of Cape Town*, 85, 90–91.

¹⁷*Ibid.*, 100.

¹⁸*Ibid.*, 86–87.

¹⁹Native meaning black African, see *ibid.*, 90–91.

²⁰Diane Frost, 'Diasporan West African communities: the Kru in Freetown & Liverpool', *Review of African Political Economy*, 29, 92 (2002), 290–292.

and Calcutta—could rely on the hinterland to supply dock workers, but others could not because smaller local populations were often involved in agriculture, sometimes as subsistence farmers, or were disinclined to take such laborious employment at comparatively low wages when better opportunities existed. Particularly of note in this sense are the stations at Ceylon, which employed mainly labourers from the littoral rim of South India, especially those considered to have a tradition of working at sea from Malabar and Cochin. Similarly, Singapore used largely Chinese heavers.²¹ Thus, the need for coaling labour in these places—as well as labour for loading other commodities—relied on the movement of other populations and often racial groups. The employment of what might justly be called “foreign workers” in such a laborious and poorly paid profession therefore in itself created new racial hierarchies of status in these places.

Although most stations employed adult male labour, some stations employed women and children in coaling ships. This appears to have been a phenomenon largely occurring in the West Indies, India, and Zanzibar, where it was predominantly women who coaled, and Japan, where men generally coaled alongside women and children. In the log of the *Indefatigable* it states that at St. Lucia “native labour—mostly women—[were] employed, as usual.”²² The log of the *Retribution* adds that the heavers were “mostly women with baskets on heads” and they “seem to do the work quite easily.”²³

An earlier account from Port Royal, Jamaica, suggests that the practice of employing women in coaling warships was a long-standing one. Sailors seemed to regard the use of women for this task as a novelty, but it was not a shocking one. A visiting female traveller, Isabelle Walton, however, was horrified by the practice. She recalls:

We arrived quite early in the morning at Kingston for coal. The deck was opened and a wooden shaft was put down. A man sat at a table with a large book. With a pen and ink, he kept a tally of the buckets of coal

²¹K. Dharmasena, *The Port and Dock Workers of Colombo*, 100–115.

²²Philip Alfred Malpas, *H.M.S. Indefatigable. Log of Second Commission from January 1, 1900, to January 13, 1903, on the North America and West Indies Station* (Bermuda: Colonist Press, 1903), 12; Stan Hugill, *Sailortown* (London: Routledge and Kegan Paul, 1967), 312.

²³W.H. Watts, *The Commission of H.M.S. Retribution, North American and West Indies Station, 1902–1904* (London: Westminster Press, 1904), 17–19.

brought in. Then came the coal heavers, to my horror, all women with great buckets of coal on their heads, holding them with one hand and the other on their hips. Their only garment, a gown reaching about half way from the knees to the feet held on by straps over their shoulders. One of them seemed quite young, some middle aged, and some were evidently nursing mothers. I exclaimed, "Oh horrors, these women are doing work like that. Where are the men?" One [young man named] Chris said carelessly, "They are nxxxers." "But Chris, they are women, and men should be doing work like that." I said no more because Chris had been raised to look on such people as cattle. These women came around and dumped the coal into the shaft, and then passed the man at the table and he [wrote] down the number of buckets.²⁴

The use of female labour for coaling in the West Indies continued in this fashion well into the twentieth century with the issue reaching parliament in 1941, with a question to the Under-Secretary of State for the Colonies. It was pointed out that the "coaling system in vogue in the Island of St. Lucia" appeared to be exactly the same as three decades previous with "local women are employed like slaves to tramp and mount ship's gangways in scanty clothing with heavy basket loads of coal on their heads, urged on by male foremen." The excuse for not mechanising the process, as given by the Under-Secretary, was a familiar one—the women themselves would object as there was so little other work available.²⁵

The use of women for coaling appears to be something that happened all over the West Indies as shown Figs. 6.3 and 6.4. It is not entirely clear why this was the case, although it was probably related to wage levels and might also have been linked to the concentration of women workers in urban Caribbean spaces at the time.²⁶ Another case of large amounts of women being used to coal British warships was in Zanzibar where it was recorded that "the coaling is principally done by women who work very well."²⁷

²⁴Isabelle Walton Lusk, 'A Trip to California in 1856', *Guidelines*, http://www.sfcityguides.org/public_guidelines.html?article=1461&submitted=TRUE&srch_text=&submitted2=&topic=San%20Francisco%20Women.

²⁵'Ship Bunkering, St. Lucia (Women)' House of Commons Debate, 15 October 1941, *Hansard*, vol. 374 cols 1351–1352.

²⁶Personal correspondence with Dr. Anyaa Anim-Addo, University of Leeds.

²⁷Journal kept by Edward Charrington, 1894 to 1898, Royal Naval Museum, Manuscript Collection, 1999/51/5.



Fig. 6.3 “Native women coaling ships with baskets,” West Indies. Courtesy of Library of Congress, LC-D4-8996 [P&P]

At Zanzibar, it is likely that female labour was required due to a shortage of male labour given that men were working on ships locally, as well as many overseas, at ports such as Simon’s Town.²⁸ In Japan, coaling was performed by all members of the family. At Nagasaki, the log of the *Goliath* recalls that the coaling party were made up of a “cheerful company of men, women and children ... passing their baskets from hand to hand ... the women [coaling] were a marvel the way they worked at it.”²⁹ Henry Swartz, who lived in Japan for some years, explained how the system worked:

²⁸ Personal correspondence with Dr. Daniel Owen Spence, University of Free State.

²⁹ J.B. Brodie, A.F. Ray, and Lionel Yexley, *The Log of H.M.S. Goliath, China Station, 1900–1903* (London: Gerrards, 1903), 17–18.



Fig. 6.4 Large coaling basket used in Bermuda. Courtesy of Bermuda Maritime Museum

Men in the barges shovel it up in shallow baskets holding a little less than half a bushel. This basket passes from hand to hand until it reaches the ladder, when the first girl seizes it and swings it straight up in front of her above her head, where it is caught by the girl above her; and so it goes on, from girl to girl, never stopping for a single minute until it finds its place in the bunkers of the ship. A line of small boys passes the empty baskets back to the barge to be refilled.



Fig. 6.5 “Female labour and the fleet,” *Navy and Army Illustrated*, 4 February, 1899

By operating in this way, Swartz worked out that coaling could be achieved at an almost unbelievable rate of $353\frac{3}{4}$ tons per hour.³⁰ This use of all types of labour suggests that British ships merely used the unrestricted labour available in Japan where the method of coaling was tailored to be performed by women and children as well as men. A photograph included in the *Army and Navy Illustrated* (Fig. 6.5) suggests some surprise at the use of these “dainty little maidens” to coal ships in Japan and that they were almost unrecognisable from the most famous Japanese women of the day, those in Gilbert and Sullivan’s *The Mikado*. There was no sense of outrage, however, suggesting that although seen as quite peculiar, contemporary Britons had little problem with women

³⁰Henry B. Schwartz, *In Togo’s Country, Some Studies in Satsuma and Other Little Known Parts of Japan* (New York: Eaton and Mains, 1908), 200–201.

engaged in manual labour. This is perhaps explained by the fact that many of the seaman originated in coastal towns where female labour at the dockside was common. Indeed, women were often employed in the British fishing industry curing and gutting fish, mending nets, and performing other general labour.³¹

Levels of exploitation of the local labour force appear to have been variable or at least the perceptions of this were. The log of the *Grafton* suggests that at Singapore the "Chinese [coal heavers] ... make a very good living out of the game, being paid so much per basket."³² Conversely, contemporary evidence suggests that other heavers, in Jamaica at least, "would work for twenty-four hours, then receive a pittance earned for their work while the white man would fill his pockets with the money they had earned for him."³³ As has been mentioned, however, at some stations there were few other employment opportunities. This was particularly the case in the more remote stations and those that were not significant towns or cities in their own right. The populations of St. Vincent, Cape Verde, were nearly entirely employed in coaling as were those in Port Royal, Jamaica, and Suez. Although coaling offered employment, with few other options, it also allowed low wages and high labour turnover.³⁴ In the Indian Ocean, pay was low, and although it compared well with plantation earnings, the free accommodation and other supplements offered along with the latter made this discrepancy negligible.³⁵

Although little evidence survives, it is clear that there were also more serious ramifications for some of the populations of coaling stations. The need for labour brought large numbers of workers to some coaling stations, either by free will or otherwise, subsequently created areas of cramped accommodation, low wages, and disease. Indeed, by the end of the nineteenth century, an influx of port workers of all types introduced

³¹ See, for example, James R. Coull, *The Sea Fisheries of Scotland: A Historical Geography* (Edinburgh: John Donald, 1996).

³² Charles Gibbs, *The Cruise of H.M.S. Grafton. A Record of Her Commission on the China Station, April 1896–September 1899* (London: Gale & Polden, 1900), 147.

³³ Isabelle Walton Lusk, 'A Trip to California in 1856'.

³⁴ Journals of Donovan C. Roe 1911–1912, NMM JOD/92/2; G.H. Gunns, *The Log of H.M.S. Sutlej, Pacific and China Stations, 1904–1906* (London: Westminster Press, 1906), 15.

³⁵ K. Dharmasena, *The Port and Dock Workers of Colombo*, 107.

slums to ports, such as Colombo, where dense populations emerged around the edges of these ports.³⁶ The presence of large numbers of naval men also encouraged high levels of prostitution, which in turn spread venereal disease throughout sailors and local communities, which is discussed in more detail in Chap. 8.

VIEWS OF NON-NAVAL LABOUR

Although the emotional and physical experience of sailors during coaling is well recorded, we have no such record for that of local workers. It is safe to assume, however, that these labourers had a similar contempt for coaling as sailors despite naval officers often arguing that their supposed racial characteristics made them ideally suited to the work, especially when carried out in inhospitable heat.³⁷ In fact, disdain for coaling was probably even more pronounced because the work—which was unpleasant and back-breaking under normal conditions—was almost constant. Not only were local heavers expected to work at day and night, they often coaled one ship after another.

What remain are the sailors' impressions of local labour. What Valeska Huber suggests of the Suez region was true across the world: "watching the coal heavers amazed or disgusted many western travellers; they became one of the sights." It is remarkable how similar and repetitive such observations were, mentioning not only the barges and the coaling methods but also the appearance of the heavers, their chanting, and their work ethic.³⁸ Much of the impressions of heavers was based on ingrained understandings both of the racial characteristics of those they observed as well as those of themselves. Indeed, sailors' views of hard work and discipline, which were a product of their own naval training, as well as their views of their own strength and masculinity, meant that the standards expected of heavers were high, and anything below this was castigated in their records.

³⁶Ibid., 109.

³⁷Journals of Donovan C. Roe, 1911–1912, NMM, JOD/92/2; W.H. Watts, *The Commission of H.M.S. Retribution, North American and West Indies Station, 1902–1904* (London: Westminster Press, 1904), 40; Gunns, *The Log of H.M.S. Sutlej*, 15.

³⁸Valeska Huber, *Channelling Mobilities* (Cambridge: Cambridge University Press, 2013). 119–121.

In general, sailors observed the local labour force, in an almost machine-like fashion, as mere parts of the coaling process. Thus, they were not seen as humans but were judged and identified on the basis of their efficiency and the quality of their work. Whilst the accounts are not always explicitly racist, they are certainly racialised with the characteristics of the local labour force, both favourable and not, often attributed to their ethnicity. These assessments of coaling labour were, of course, shaped by both the naval and the Victorian and Edwardian lenses they were viewed through, but they also played an important role in propagating and reinforcing such views. These "characteristics" were then reinforced by the wide dissemination of these accounts, both informally through word of mouth and formally through the many published accounts that emerged in this period, thus shaping wider ideas about local populations.

That is not to say that all of which is written about local heavers was negative. In fact, some stations were specifically praised for the efficiency of the local labour. Indeed, the ability to coal for long hours, particularly under harsh climatic conditions, was often remarked on even if it was often ascribed to the imagined racial characteristics of the workers. Thus, Singapore was especially noted for being "one of the smartest coaling places in the world" because of the efficiency of the Chinese "coolies" employed.³⁹ Those employed in coaling would "come in one gangway and out another, thus keeping up one continual stream." Particularly impressive was their ability to do this in unbearable heat and that often when they finished, they would straight away coal another ship.⁴⁰ Likewise, Port Saïd was well known to be the "acme of coaling ports, as coal can be brought on board ship here much faster than at any port in the world."⁴¹ Most British sailors who coaled here recorded their astonishment at the speed and efficiency of coaling where rates could be in excess of 150 tons per hour.⁴² The log of H.M.S. *Encounter* recalls:

³⁹ Brodie, Ray, and Yexley, *The Log of H.M.S. Goliath*, 132.

⁴⁰ Gunns, *The Log of H.M.S. Sutlej*, 54; Gibbs, *The Cruise of H.M.S. Grafton*, 7.

⁴¹ E.G. Anning, F.J. Bentley, and Lionel Yexley, *The Log of H.M.S. Argonaut, 1900–1904. China Station* (London: Westminster Press, 1904), 9. For an excellent analysis of the coal heavers of the Suez region, see Huber, *Channelling Mobilities*, 116–123.

⁴² Gibbs, *The Cruise of H.M.S. Grafton*, 152.

Amidst loud cries of “Allah, Allah,” sturdy niggers are carrying small baskets on their heads filled with coal, not walking but running, and as one gaping hole is filled up they are fast filling another. They are only of a small stature, and often many are mere boys; but it seems to make no difference to them, for they appear to never tire, and seem to be gifted with strength that is not human. If one slackened in his speed a torrent of abuse would come from one of the dusty overseers, often accompanied by a clout on the head. This place is considered the smartest port in the world for coaling, the operation only taking a few hours, whereas a ships’ company would be occupied for a whole day.⁴³

The coal heavers of Perim, another station serving Suez Canal traffic, also impressed the British servicemen. The log of H.M.S. *Bedford* records that: “we had hardly dropped anchor before they were clambering up the ship’s side... everything seemed to be done at the double.” Furthermore, the heavers did not appear to eat but continued to coal for ten hours, in which time they loaded some 950 tons.⁴⁴ Again, particularly impressive was the work rate in such an inhospitable climate and it was noted that these “ginger haired niggers” were “a quiet hardworking race,” as they coaled the ship stripped to waist and without boots, singing songs as they worked.⁴⁵ The “negroes” at Fernando Po passed the coal along in a chain, which ensured it was “done in no time, and without the least dust or bother.”⁴⁶ Also highly appreciated were Fijian heavers, who “worked like slaves ... very scantily clothed and took only half an hour for meals.”⁴⁷ Similarly, the labour at St. Vincent, Cape Verde, was known for coaling “in very good time,” and were noted for their aquatic skills, diving after coal that had become dislodged from bags,

⁴³Fowler, *The Log of H.M.S. Encounter*, 3.

⁴⁴A.E. Butterworth, *The Log of H.M.S. Bedford, China Station, 1907-09* (London: Westminster Press, 1909), 9.

⁴⁵Gunns, *The Log of H.M.S. Sutlej*, 20; Anning, Bentley, and Yexley, *The Log of H.M.S. Argonaut*, 11.

⁴⁶Sam Noble, *Tween Decks in the Seventies: An Autobiography* (London: Sampson Low, Marston and Company, 1925), 152.

⁴⁷H. Callow, *The Commission of H.M.S. Royal Arthur, Flag Ship, Australian Station. 1901-1904* (London: Westminster Press, 1904), 74.



Fig. 6.6 Coaling alongside the new mole at Gibraltar. Note the use of “Rock Scorpions” to carry the bags on board. *Army and Navy Illustrated*, 10 December 1898

some pieces as big as themselves, then using ropes to haul each other back up.⁴⁸

Particular praise was reserved for stations, particularly Gibraltar and Malta, where the ship’s company worked in tandem with local workers. Although it required labour from the ship’s company, competition between vessels to achieve ever higher rates of coaling was fierce, and the help of specialist local labour drove these rates even higher. Thus, at these stations, having local labour to bring coal to the upper deck meant it was a “great advantage coaling from lighters to coaling from a collier,” because coal could be loaded twice as fast.⁴⁹ In fact, so efficient was this system that rates of more than 200 tons per hour were regularly recorded, and 292.5 tons per hour became the station record in the early

⁴⁸H. Breaks, *The Log of H.M.S. Bonaventure, Pacific and China Stations, 1903–1906* (London: Westminster Press, 1906), 3; Newton, *The Commission of H.M.S. Grafton*, 208.

⁴⁹A.H. Tyler, *The Commission of H.M.S. Lancaster, Mediterranean Station, 1904–1906* (London: Westminster Press, 1906), 22–23.

twentieth century. Such was the value of swift coaling, especially in terms of mobilisation, that when this record was broken the Admiral signalled his congratulations.⁵⁰ The skill of these workers was so highly regarded that they became renowned for their speed and balance on the planks while carrying baskets in “bee like swarms” (see Fig. 6.6).⁵¹

Whilst many of these comments may well have been intended as praise of indigenous heavers, they are heavy in racial overtones. They highlight not an acquired skill, or sheer hard work and stamina, but instead understand those workers as specific racial groups with a particular suitability for the unrelentingly exhausting work required in an uncomfortable climate. This reflected a wider understanding of non-white people, a scientific racism that decreed the suitability of certain “races” to particular jobs.⁵² Much of the reasoning for this was perhaps a justification for the appalling conditions and long hours that these people worked. Indeed, it is reminiscent of the language of slavery, where a “racialised understanding of black endurance” helped contemporaries to rationalise slavery, where the “bodily ease” of slaves doing labour was particularly noted, especially in climates uncomfortable to white Britons.⁵³

Furthermore, not all stations with local labour received praise, and here, perhaps, these racial overtones were most prominent. Where labourers did not live up to the high expectations of naval men, or to those heavers described previously, they were roundly criticised. Sailors were particularly scathing of what they viewed as laziness and ill-discipline amongst the workers, which was generally attributed to the heavers’ race or culture. Such accusations were frequently put to the heavers at Suez. The log of H.M.S. Renown recalled that on arrival they were:

surrounded by coal laden dhows swarming with natives. After allowing them about half an hour for preliminary jabbering, in which it is hopeless

⁵⁰D.E. Whiteley, and C. Davis, *The Commission of H.M.S. Bulwark, Mediterranean Station, 1902–1905* (London: Westminster Press, 1905), 123.

⁵¹Joseph Bonnici and Michael Cassar, *The Malta Grand Harbour and Its Dockyard* (Malta: Malta Maritime Authority, 1994), 360–363; Anning, Bentley, and Yexley, *The Log of H.M.S. Argonaut*, 7.

⁵²For a study of ‘seafaring races’, see Daniel Owen Spence, *Colonial Naval Culture and British Imperialism, 1922–67* (Manchester: Manchester University Press, 2015).

⁵³David Lambert, ‘Master–Horse–Slave: Mobility, Race and Power in the British West Indies, c. 1780–1838’, *Slavery & Abolition*, 36:4, 632.

to interfere, we have got them properly made fast, and they are rigging the stages, up which they will pass the coal in small baskets. At last they start as they pass the coal, they break into a weird chant ... The coaling is tedious; "stand easies" are too much the order of the day with the natives.⁵⁴

Similarly, the log of H.M.S. *Sutlej* had little in the way of compliments for those working in Suez describing their work as "the worst specimen of coaling ever witnessed. The coolies, with a lazy indifference, absolutely declined to trouble themselves or hurry in any way."⁵⁵ Not only were the heavers perceived as slow working, but also, on occasion when they "got tired of coaling, [they] deliberately dived over the side and swam ashore."⁵⁶

Similarly, some heavers in Zanzibar were "almost as bad as at Suez, and the crew were very disheartened."⁵⁷ At Wei-Hei-Wei, H.M.S. *Alacrity* endured "a most tedious operation, the coolies being quite the laziest lot I have ever come across." The journal then recalls that only 260 tons was loaded in 13 hours, and suggested "comment is needless." In a later entry, it again suggests slow progress was a result of "the coolies being a very poor lot."⁵⁸ In Colon, Panama, the heavers were regarded as not being energetic enough with the log of H.M.S. *Retribution* noting that "the niggers had got in only 30 tons during the day, so we had to set to and make up the deficiency."⁵⁹ A similar accusation was made toward the coal heavers of *Woosung* along with the comments that the "coolies are not very good and no one seems to care how long they take to put coal on board."⁶⁰ Similarly, Edward Charrington recalls that coaling at St. Helena in 1897 was "very slow work owing to great difficulty in getting anything like a regular supply from the

⁵⁴Charles Mitchell, *The Commission of H.M.S. Renown, 1900–1904, Mediterranean Station* (London: Westminster Press, 1904), 50.

⁵⁵Robert L. Moore, *Commission and Travels of H.M.S. Good Hope* (Cape Town: W.A. Richards & Sons, 1903), 40.

⁵⁶Gunns, *The Log of H.M.S. Sutlej*, 15.

⁵⁷Moore, *Commission and Travels of H.M.S. Good Hope*, 49.

⁵⁸Journal kept by Edward Charrington, 1899–1902, Royal Naval Museum, Manuscript Collection, 1999/51/7.

⁵⁹Watts, *The Commission of H.M.S. Retribution*, 163.

⁶⁰Journal kept by Edward Charrington, 1899–1902, Royal Naval Museum, Manuscript Collection, 1999/51/7.

shore.”⁶¹ What is conspicuous in the majority of these, of course, is that these heavers were seen as lazy as a result of their imagined racial characteristics.

Reflections of indigenous labourers then tended to be heavily racialised, whether viewed in a positive or negative light. This does not mean that there was a collective understanding, however. Whilst often these perception fitted with the crude stereotypes common of the period, there were contradictions between impressions of the same groups of labourers suggesting that views were tempered by the individual circumstance, particularly when tensions were particularly high. Indeed, these differences can largely be attributed to the efficiency of the work force. As such, then, individuals in these work forces were homogenised in sailors’ accounts regardless of sex or age—suggesting dehumanisation—and that they were viewed merely as one “coal labouring” machine.

Criticism was not simply along racial lines, though, and fellow “westerners” were also bemoaned for their lack of efficiency. H.M.S. *Karrakatta* endured its “dirtiest and worst coaling” in Western Australia, where the heavers would only get in a few hundred tons before “they want their Smoke-o.” The log notes, however, that they were still better than colliers in Sydney.⁶² The *Royal Arthur* coaled at just 20 tons/hour from lighters there “owing to the men on the lighters knocking off every half-an-hour for “spello,” “smokeo,” and other “excuseo.”⁶³ Although those emigrants in Settler Colonies were often seen as “British,” here we see a sense of imperial superiority from sailors over white “colonials.”

At other stations, the method employed by the heavers was questioned as to its efficiency, often with an inference that such techniques represented evidence of lesser intelligence. When the *Sutlej* coaled at Surabaya, Java, it was noted that the Javanese method of passing 25-pound buckets in a chain was extremely slow, not helped by the workers “not hurrying themselves in the least and jabbering all the time.”⁶⁴ At King George’s Sound, Albany “baskets with a capacity for 5 cwt of coal were wheeled along planks from the lighter inboard to the ship, on small trolleys after the English bag system. Each basket was then

⁶¹ Ibid.

⁶² Reginald A. Silk, *The Log of H.M.S. Karrakatta, 1900–1903, Australian Station* (London: Westminster Press, 1904), 80.

⁶³ Callow, *The Commission of H.M.S. Royal Arthur*, 63.

⁶⁴ Gunns, *The Log of H.M.S. Sutlej*, 15.

emptied on to the deck and the coal had to be shovelled up again, which seemed an Irish way of doing a job."⁶⁵

There was room to improve, however, and the locals at some stations seem to have enhanced their reputations over time. Those working in Colombo in the late 1890s were said to "work very slowly, and, as a consequence, we were all day at it, and the ship, from truck to keel, was one mass of coal dust."⁶⁶ By 1907, however, the "coolies" were said to be "quickly on the job, though not so lively as our black friends at Perim."⁶⁷ These occasions are, however, rare, and reputations appear to have stuck fast in most places.

As well as their efficiency in getting coal on board, the characteristic ways that local labour would work also featured in almost all descriptions. Such comments ranged from a fascination with the exotic and alien nature of the workers to showing them to be strange, primitive, and childlike. Whilst both were tainted by patronising racial ideologies, a difference in tone can be detected when describing those whose work ethic they approved of and those which they did not.

At stations where work forces were praised for their work, such as Port Saïd, sailors suggest that "it was amusing to watch the natives at work," and "the chatter and chanting in their own 'lingo' was interesting to listen to, as well as amusing."⁶⁸ Similar characteristics were less well received when work was not to the high standard expected, however.⁶⁹ At Suez, it was noted how "the natives ... did more fighting and quarrelling than work."⁷⁰ Another log suggests that the singing of the "crowd of dark, jabbering, unclean-looking coolies" was particularly unwelcome "with their dismal chant sounding in our ears like a funeral dirge."⁷¹ Some heavers were so despised that their absence was welcomed. During the Chinese New Year, the log of the *Glory* recalls that

⁶⁵Callow, *The Commission of H.M.S. Royal Arthur*, 11. The log refers to the station as 'St. George's Sound'.

⁶⁶Gibbs, *The Cruise of H.M.S. Grafton*, 148.

⁶⁷Butterworth, *The Log of H.M.S. Bedford*, 11.

⁶⁸Gunns, *The Log of H.M.S. Sutlej*, 20; Anning, Bentley, and Yexley, *The Log of H.M.S. Argonaut*, 11.

⁶⁹Tyler, *The Commission of H.M.S. Lancaster*, 48.

⁷⁰Gunns, *The Log of H.M.S. Sutlej*, 15.

⁷¹Moore, *Commission and Travels of H.M.S. Good Hope*, 40.

having no Chinese heavers aboard was “quite a treat ... without their shouting and their foreign jabber and especially their smell.”⁷²

Occasionally, disagreements between heavers and naval officers would result in a refusal to coal the ship, and when these situations reached an impasse, tensions between naval men and heavers were particularly noticeable. In an attempt to regain the control and to assert their superiority, the commanders had several techniques to “convince” the locals to “improve their attitude.” In Suez, the commander sent marines to “persuade” the locals to recommence coaling after they had left the job in the evening, and in Zea, Piraeus, a salt-water hose was used to encourage heavers refusing to work in a swell.⁷³ Negotiations during disagreements with heavers were often difficult, however, despite the presence of overseers not because of the attitude of the heavers, as assumed, but because there was generally a substantial language barrier, which could cause further delays.⁷⁴

Perhaps the place of non-sailor labour in the minds of sailors and British authorities is best surmised by considering accounts of accidents during coaling. Whereas both anecdotal and official reports of accidents involving sailors are common, those involving local labour are conspicuous by their absence.⁷⁵ Yet it seems inconceivable that the rate of accidents, and indeed deaths, amongst indigenous coal heavers could have been lower than that of sailors. Indeed, with local workforces coaling ships far more regularly, it seems highly probable that injury and death would have been quite common. That such occurrences are completely nonexistent in records underlines the view of the local labourer as part of the coaling machine, to be replaced when necessary.

Although officers were primarily concerned with getting coaling “finished in the least possible time,” efficiency was not the sole reason that sailors were scathing in their judgments of local labourers: slow coaling generally resulted in “the Commander, hoping to expedite matters,

⁷² Butterworth, *The Commission of H.M.S. Glory*, 136.

⁷³ Brodie, Ray, and Yexley, *The Log of H.M.S. Goliath*, 5; Gunns, *The Log of H.M.S. Sutlej*, 15; W. Wheeler, *The Commission of H.M.S. Pandora, Mediterranean Station, 1901–1904* (London: Westminster Press, 1904), 9.

⁷⁴ J.R.M.A., Brown, *The Log of H.M.S. Repulse, 1902–1904, Mediterranean Station* (London: Westminster Press, 1904), 57. Although supervisors were employed to oversee the heavers, there were still problems.

⁷⁵ This is discussed in the next chapter.

[falling] the hands in."⁷⁶ This was especially detested because these occasions were a rare opportunity for the crew to avoid coaling themselves.⁷⁷ Furthermore, as manifested in the recorded opinions of these labour forces, the crew also believed that coaling was beneath them when local labour, seen as racially inferior, was available. Thus, when locals refused to coal, as they did for H.M.S. *Implacable*, it was blamed on it being part of the local heavers' lack of character: it was "too hard work in the burning sun for the natives, so us unfortunate bluejackets had to lump it."⁷⁸ At Aden, the crew of H.M.S. *Glory* fell victim to this, and the thoughts of the crew can easily be understood from the tone of the log entry: "the niggers didn't seem to relish the job, so the ship's company had to coal."⁷⁹ These occasions did allow sailors to show their own prowess at coaling, however. One log suggested that the ship's company made the best heavers, claiming that the "niggers could not touch them; bag after bag was filled and passed from hand to hand until the end of its journey."⁸⁰ Such opportunities to highlight their physical prowess therefore allowed sailors to reassert their perceived racial supremacy over colonial peoples.

CONCLUSIONS

The necessity of both storing coal and then the need to move it from shore to ship meant that the shift from sail to steam had visible effects on coaling stations. This was manifested both in terms of effects on the physical landscape of the station, with the construction of cranes and sheds at some stations and huge stacks of coal at others, as well as the influx of labour needed for what largely remained a manual and physically demanding process even in 1914.

⁷⁶ Gunns, *The Log of H.M.S. Sutlej*, 15; Moore, *Commission and Travels of H.M.S. Good Hope*, 40.

⁷⁷ Gunns, *The Log of H.M.S. Sutlej*, 15.

⁷⁸ Parker, *The Commission of H.M.S. Implacable*, 96; Whiteley and Davis, *The Commission of H.M.S. Bulwark*, 4; H. Furneaux, *The Log of H.M.S. Diana, Mediterranean Station, 1904–1906* (London: Westminster Press, 1907), 50; Anning, Bentley, and Yexley, *The Log of H.M.S. Argonaut*, 51–52.

⁷⁹ Butterworth, *The Commission of H.M.S. Glory*, 3.

⁸⁰ Moore, *Commission and Travels of H.M.S. Good Hope*, 41.

Often coaling was undertaken by indigenous workers, many of whom had little other occupational opportunities beyond the low-paid, physically onerous, and hugely dangerous employment as coal heavers. Where labour was short, or when other less dangerous and physical work was plentiful, other non-white labour forces—such as those from the Gold Coast and eastern Africa at Simon's Town, southern Indians in Ceylon, and Chinese at Singapore—were brought to stations to take these jobs. The influx of these labour forces created new racial dynamics in these places and created hierarchies even amongst the non-Western populations. Except in Australia, where white labour was able to unionise, these workers were often exploited by the fixing of wages amongst employers and by the oversaturation of the labour force. This in turn created poor living conditions, health issues, and the social deprivation resulting from poor wages, and, in part, the naissance of some slums in the environs of stations.

These labour forces were also subjects of fascination for sailors who came to coal at these stations, and thus offer a window into the racialised views of these men toward these workers during this period. Heavers often attracted the attention of sailors who judged them by coaling practices, discipline, and perception of capacity for arduous labour, inevitably seen through the racial lens of high imperialism. In particular, conceptions of racial characteristics were used to explain why some indigenous populations were particularly suited for such hard work, especially in uncomfortable climates, just as black Africans had been during the slave trade. By doing so, the labour practices, low wages, and long hours were justified. Where labour was judged to be inadequate, this was again explained by racialised theories.

Responses to coaling practices were also heavily influenced by the sailors' ideas of naval discipline and organisation, and local coaling labour was accordingly judged by these perceptions of efficiency and hard work. As a result, not only were coal heavers seen as inferior to the sailors themselves, but they were also rarely seen as individuals and were instead largely reduced to cogs in a huge coaling machine.

Although not all records castigate local labourers, not only were they usually seen as cogs in a machine but also as easily replaceable when broken. This point is reinforced by the fact that, while the work was obviously dangerous, there are no mentions at all of local labour suffering death or injury in the surviving personal or official accounts. By examining accounts of these coal heavers recorded by sailors, then, this chapter

has shown that despite the unique nature of the activities and interaction at coaling stations, sailors' ideas about imperial labour and race, in particular, reflected those held commonly by Britons in the late nineteenth and early twentieth centuries.

“A Shadow Would Come Over the Ship”: Using Naval Labour for Coaling

Although indigenous heavers could be found coaling British warships in 1914, as the period progressed sailors were increasingly used to coal ships as a convenient and ostensibly free source of labour. Indeed, the log of the *Bedford*, which was on the China Station from 1907 to 1909, reports that it was “quite a luxury” to “be stood off” for coaling. Similarly, the *Implacable*, during its 1901 to 1904 commission, reported that “one of the advantages of laying at Malta—native labour is employed in coaling ship,” suggesting that this was a rarity.¹

This was a result of several factors. At some stations this was because the individual circumstances changed. For example, in order to reduce costs, Malta began to rely more heavily on crew labour, and to a much lesser extent mechanisation, than the local heavers who had numbered approximately 200 at the turn of the century.² There were also more general factors. A growth of both ship numbers, and their consumption of coal, meant that using the labour of the ship helped the navy avoid

¹A.E. Butterworth, *The Log of H.M.S. Bedford, China Station, 1907–1909* (London: Westminster Press, 1909), 44; G.R. Parker, *The Commission of H.M.S. Implacable, Mediterranean Station, 1901–1904* (London: Westminster Press, 1904), 7.

²W.H. Watts, *The Commission of H.M.S. Retribution, North American and West Indies Station, 1902–1904* (London: Westminster Press, 1904), 17–19; Joseph Bonnici and Michael Cassar, *The Malta Grand Harbour and Its Dockyard* (Malta: Malta Maritime Authority, 1994), 360–363; E.G. Anning, F.J. Bentley, and Lionel Yexley, *The Log of H.M.S. Argonaut, 1900–1904. China Station* (London: Westminster Press, 1904), 76.

having to employ vastly more local coal heavers to manage the extra workload. Even H.M.S. *Dreadnought*, brought into service in 1906 and noted for its comparatively economical steam turbines, consumed on average of 300 tons a day of fuel and carried 2900 tons of coal. This represented a huge change in ships' capacity for and consumption of coal. H.M.S. *Collingwood*, launched in 1880 and powered by twin screws, carried just 900 tons. Thus, despite being more efficient, the size of battle-ships—*Dreadnought* was approximately twice the standard displacement of *Collingwood*—as well as the increase of ship numbers after the building programmes of the latter part of this period meant that more coaling labour was needed as the period went on.³

These factors also meant that it was not always feasible to coal at a jetty or by lighter where local labour could work. This necessitated coaling of ships at anchor, and thus this period sees a greater use of colliers for coaling, which allowed multiple large warships to coal at once in the relative calmness of a harbour, an advantage particularly at stations with large fleets.⁴ This change required coaling to be completed by the ships' crews and permitted ships to coal in convenient harbours while on manoeuvres far from coal stacks. The process of coaling was also seen as easier from colliers; the methods were fairly uniform for each class of ship.⁵ Moreover, "the Royal Navy were able [to] charter private colliers as and when required without difficulty in peacetime and considered that the large, privately owned merchant collier fleet would [be] able to cater for any additional demands in wartime."⁶ Although these chartered colliers were crewed by merchant crews, the naval crews performed the transfer of coal to warships. Although these advantages

³ *Collingwood* had a standard displacement of 9500 tons and *Dreadnought* a standard displacement of 17,900 to 20,700 tons. David W. Wragg, *Royal Navy Handbook: 1914–1918* (Stroud: Sutton, 2006), 15; 'Ships', in Hugh Chisholm, and Franklin Hooper (eds.), *Encyclopedia Britannica* (Cambridge: Cambridge University Press, 1922).

⁴ 'Masker', 'The China Station in Other Days', *The Naval Review* 25, no. 3 (1937), 522–533. Hired steam colliers were also used in domestic naval stations. See David Evans, *Building the Steam Navy: Dockyards, Technology and the Creation of the Victorian Battle Fleet 1830–1906* (London: Conway Maritime Press, 2004), 187.

⁵ 'Remarks on organisation and coaling (1900)—Capt. E.E. Bradford', NMM, BRD/29 David G. Lance, 'Interview with Arthur Ernest Lilley', 1976, Imperial War Museum, 750.

⁶ Warwick Brown, 'When Dreams Confront Reality: Replenishment at Sea in the Era of Coal', *International Journal of Naval History*, (2010), <http://www.ijnhonline.org/2010/12/01/when-dreams-confront-reality-replenishment-at-sea-in-the-era-of-coal/>.

were considerable, the rates of transference achieved coaling from a collier did not often exceed 100 tons per hour, which was considerably lower than the highest rates seen by the other methods.⁷ Furthermore, "much depend[ed] on the collier herself: though these vessels have improved in quality considerably of late some of them still are very inferior, having small holds, old ramshackle winches, and gear that breaks down without the slightest provocation."⁸

The extensive use of ships' labour therefore became an increasingly important part of the global coaling process, and is the current chapter focuses on this subject. To do so, it considers not only the processes involved in coaling a ship with naval labour but also the thoughts of the men who performed this labour. In doing so, it shows how the identity and views of sailors shaped their impressions of the processes and helped them cope with the monotony of "coal-ship." A laborious and dirty job, coaling was unsurprisingly an almost universally hated exercise. This was compounded by the dangers involved. Injuries and death were regular occurrences, but little could be done to improve safety. Often needing to coal once a week, sailors inevitably developed coping mechanisms that show much about their identities. Indeed, competition among ships to achieve the highest coaling rates tells us much about how the naval man displayed his masculinity, which was built on ideas of pride, hard work, and endeavouring to be the best. Furthermore, the use of music, fancy dress, and the involvement of the whole crew in the process reveals a camaraderie and solidarity among naval men. Accounts also suggest that sailors realised the wider importance of coaling efficiently in order to allow the Royal Navy to quickly mobilise in defence of its empire.

COALING FROM LIGHTERS

Although only coaling from a collier was always performed by naval men, there were several reasons why a ship's company might be called to coal their own vessel from a jetty. Occasionally there were simply not enough local heavers to coal all of the ships in harbour, and at smaller or purely naval sites this was often the case. Temporary labour shortages also occasionally occurred at large stations, caused by strikes, or during cultural

⁷'Portland coaling depot 1903', TNA, ADM 1/7675.

⁸ *Navy and Army Illustrated*, Sept 17, 1898.

and religious festivals such as Christmas and the Chinese New Year.⁹ In these cases, naval labour would be used to coal from the stations' jetties, which was performed in much the same way as with indigenous labour.

The use of lighters was more common, and these were especially used where a station did not have the facilities to coal a ship directly from the shore; it generally used naval labour, particularly in moving the fuel from lighter to bunker. With this method, a lighter would come alongside a warship and be secured, usually the night before coaling, thereby giving as many daylight hours as possible to the task. In the morning, the coal would be transported, either passed by hand or by using the ship's winches, from the lighter to the deck. From there, it was deposited in the ships bunkers (see Fig. 7.1).¹⁰

In the 1870s, this coaling technique was less standardised and methods less perfected, and "it was frequently the deuces own job getting the coal out on account of the ship rolling like an empty tub and threatening either to fall on top of you or suck you under at every heave."¹¹ From the 1880s onward, however, the coal or—less often—patent fuel was brought out by the lighter already in bags, thus allowing a higher rate of transference.¹² This more uniform use of coal in bags, along with operational experience, went some way to alleviate earlier problems: in time, coaling from lighters became so efficient that some station records for the rate of coaling were broken using this method.¹³ Even so, although this was done regularly and in the calmness of a harbour, on rare occasions a rough seas overnight could detach lighters, which could then suffer damage or even sink with coal aboard.¹⁴

⁹H. Furneaux, *The Log of H.M.S. Diana, Mediterranean Station, 1904–1906* (London: Westminster Press, 1907), 50; Anning, Bentley, and Yexley, *The Log of H.M.S. Argonaut*, 76.

¹⁰Remarks on organisation and coaling (1900)—Capt. E.E. Bradford', NMM, BRD/29.

¹¹Sam Noble, *'Tween Decks in the Seventies: An Autobiography* (London: Sampson Low, Marston and Company, 1925), 188.

¹²H. Breaks, *The Log of H.M.S. Bonaventure, Pacific and China Stations, 1903–1906* (London: Westminster Press, 1906), 83; Albert Newton, *The Commission of H.M.S. Grafton, Pacific Station, 1902–1905* (London: Westminster Press, 1905), 204.

¹³D.E. Whiteley and C. Davis, *The Commission of H.M.S. Bulwark, Mediterranean Station, 1902–1905* (London: Westminster Press, 1905), 123.

¹⁴S.E. Dunslow and R.J. Jones, *The Commission of H.M.S. Eclipse, China Station, 1901–1904* (London: Westminster Press, 1904), 106.



Fig. 7.1 Coaling the H.M.C.S. *Niobe* from a lighter or barge alongside c. 1910 to 1914. George Metcalf Archival Collection, Canadian War Museum, 20030174-011

COALING FROM A COLLIER

Coaling using a collier, as already suggested, was used extensively especially when large fleets were at a station together. Because it prominently involved the ship's crew, it is about this method that most records and descriptions remain. Coaling was exclusively performed by a ship's company and to be efficient, organisation was crucial. A division of responsibilities was usually performed at the beginning of a commission, and each man kept his role throughout. Even so, it still took time for every man to know his duties and perform them competently. In the earlier part of the period, coal was loaded by one or several simple pulley systems known as “whips,” but after 1892 the newly invented Temperley

Transporter was seen as a much superior option (see Fig. 7.2).¹⁵ Described as “a sort of overhead trapeze for running the coal from the collier to the ship,” this machinery allowed the swift transference of coal, but its use was not without difficulty.¹⁶ Some ships “could not get along at all with the collier,” for example, and this could cause serious delays.¹⁷ Moreover, the Temperley was far from infallible and regularly broke down, and “considerable time [was] lost in unshipping cross-beams and shifting gear.”¹⁸ Even with these delays, however, coaling averages using the machinery were often impressive, if not quite as high as the other methods.

Before coaling could commence, the bags, shovels, strops, and other coaling equipment, which had been laid out on upper deck beforehand, were thrown into the secured collier, and all unnecessary work aboard ceased.¹⁹ Simultaneously, the stokers connected the chutes that would convey the coal from the deck to the bunker.²⁰ The process of coaling then began with the call “Clear lower deck! Hands fall in for coaling ship!” After this, everything on deck was covered; newspaper was used to plaster over crevices; and hawsers (mooring ropes) were tightened by the foretop men.²¹ Several of the sailors would then board the collier to begin the process of coaling. Once in the collier, the sailors formed four or five groups of eight men: two for holding bags and slinging and the rest for shovelling the coal into the sacks, which held approximately two hundredweights (around 100kg) each (see Fig. 7.3).²² The collier’s steam winches, colloquially known as “donkey engines,” would then whip up the

¹⁵‘Remarks on organisation and coaling (1900)—Capt. E.E. Bradford’, NMM, BRD/29.

¹⁶J.R.M.A. Brown, *The Log of H.M.S. Repulse, 1902–1904, Mediterranean Station* (London: Westminster Press, 1904), 126.

¹⁷Charles Gibbs, *The Cruise of H.M.S. Grafton. A Record of Her Commission on the China Station, April 1896 – September 1899* (London: Gale & Polden, 1900), 84.

¹⁸A.H. Tyler, *The Commission of H.M.S. Lancaster, Mediterranean Station, 1904–1906* (London: Westminster Press, 1906).

¹⁹K. Maclean, P. Macdonald, and Lionel Yexley, *The Log of H.M.S. Caesar, 1900–1903. Mediterranean Station* (London: Westminster Press, 1903), 9–15.

²⁰Whiteley and Davis, *The Commission of H.M.S. Bulwark*, 3.

²¹Maclean, Macdonald, and Yexley, *The Log of H.M.S. Caesar*, 9–15.

²²‘Remarks on organisation and coaling (1900)—Capt. E.E. Bradford’, NMM, BRD/29.

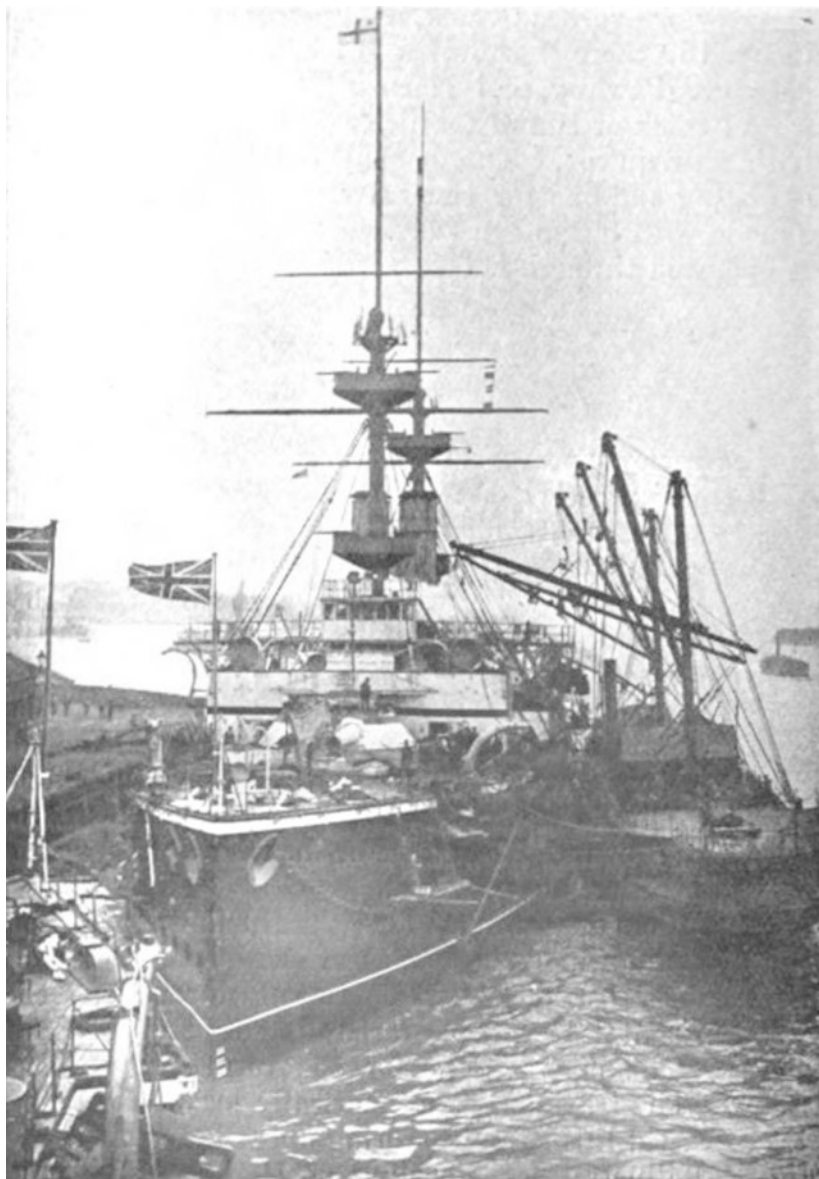


Fig. 7.2 “The coaling of H.M.S. Majestic with four Temperley patent portable transporters.” Taken from Edward Charles Robert Marks, *The construction of cranes and other lifting machinery* (1904)



Fig. 7.3 Officers and ratings prepare coal sacks to be hoisted aboard, unknown date. Portsmouth Historic Dockyard

first hoists of coal holding ten bags; the coal dust soon turned everything and everyone black. The sailors would continue to shovel coal into empty bags while also dodging coal falling from those already hoisted. One sailor recalled that “to look down into the holds from the deck above was like looking into a little inferno.” The dust was so thick that the collier held “just black toiling beings, with red eyes and lips showing out in bold relief.”²³

On the deck, the crew would jump onto the hoisted coal sacks, release their straps, and then load them onto trolleys, which marines would then take to the chute. Here they were directed by an engineer sub-lieutenant who was responsible for seeing that each chute got equal amounts of coal.²⁴ Stokers, stripped to the waist, would wait in their bunker for

²³W. Wheeler, *The Commission of H.M.S. Pandora, Mediterranean Station, 1901–1904* (London: Westminster Press, 1904), 123–126.

²⁴Christopher McKee, *Sober Men and True: Sailor Lives in the Royal Navy, 1900–1945* (Cambridge, MA: Harvard University Press, 2002), 120–122; Maclean, Macdonald, and Yexley, *The Log of H.M.S. Caesar*, 9–15.

its chute to begin to be used.²⁵ They would then have the unenviable task of moving the coal to fill the bunker completely and clearing the coal deposited down the chute into the bunker just in time for another load to arrive. Down the chute with the coal came a cloud of dust and, with nowhere to escape, the stokers increasingly found it impossible to see, had their lungs filled with black dust, and struggled to keep their lamps alight.²⁶ The empty bags were then returned to the collier, where the process could start again. With practice, this whole process could be done seamlessly with the ship's company acting as a great machine to achieve high efficiency.²⁷

Breaks for food depended on when coaling commenced and how much coal had to be loaded. Generally there would be a race to breakfast where everything—the men, the food and the deck—were black from coal dust.²⁸ After a short time, “commence” would sound again, and the men would be back to their stations with the encouragement of the senior officers.²⁹ Other meals tended to last approximately half an hour often comprised bully beef or salted pork.³⁰ Liquid refreshment would either be oatmeal water or lime juice depending on what climate the ship was currently inhabiting.³¹

Once the requisite amount of coal had been taken in, a bugle would sound “cease fire,” after which the whips would be unrigged; the men, shovels, and other tools would be returned to the ship; and the collier would be shoved off.³² The collier would often then go on to coal several more ships: the naval collier *Mercedes*, while on the China Station, consecutively coaled the *Glory*, *Cressy*, *Blenheim*, *Amphitrite*, *Argonaut*, *Goliath*, *Eclipse*, *Talbot*, *Algerine*, and *Bramble*.³³ For the smaller destroyers, the coaling routine was similar but with only four or five men to

²⁵ Maclean, Macdonald, and Yexley, *The Log of H.M.S. Caesar*, 9–15.

²⁶ McKee, *Sober Men and True*, 120–122.

²⁷ Ibid.

²⁸ David G. Lance, ‘Interview with James George Cox’, 1976, Imperial War Museum, 728.

²⁹ Maclean, Macdonald, and Yexley, *The Log of H.M.S. Caesar*, 9–15.

³⁰ McKee, *Sober Men and True*, 120–122.

³¹ Lance, ‘Interview with James George Cox’.

³² Wheeler, *The Commission of H.M.S. Pandora*, 123–126.

³³ A.E. Butterworth, *The Commission of H.M.S. Glory, Flag Ship of Commander-in-Chief, China Station, 1900–1904* (London: Westminster Press, 1904), 72.



Fig. 7.4 Scrubbing the decks of H.M.S. *Goliath* after coaling, c. 1900 to 1915. Photo courtesy of Dave Martin

take on the coal, the amounts were smaller—approximately 50 tons—and coaling was carried out every three to four days.³⁴ It is notable that ships commissioned in the early twentieth century were designed with ease of coaling in mind. The *Dreadnought*, for instance, was easy to prepare for coaling: It was merely a case of taking the guardrails down before the coal bags could be brought up.³⁵ Similarly, the *Encounter* was better designed for sealing the decks when coaling to the extent that “a lower deck man can sit in his mess and eat his scran without the fear of coal-dust.”³⁶ This, in particular, was a huge improvement because the

³⁴Lance, ‘Interview with James George Cox’.

³⁵David G. Lance, ‘Interview with Stanley Munday’, 1973, Imperial War Museum, 9048.

³⁶H.M. Fowler, *The Log of H.M.S. Encounter, Australian Station, 1908–1910* (London: Westminster Press, 1910), 12.

lingering presence of coal dust throughout the ship was a frequent complaint of sailors after coaling had been finished.

Once coaling was complete, the washing down of the ship began. Whether or not a ship's company had coaled the ship or not, the exhausted men would rig the sea-water hoses and begin what was colloquially known as the "water carnival" (see Fig. 7.4).³⁷ Stringent standards of cleanliness aboard a naval vessel, combined with coal dust's ability to penetrate every crevice, meant that for some sailors the "painful necessity of cleaning down" deck was "the worst part of the whole business."³⁸ There was some reward for completing coaling and washing down, though, because on most ships a draught of beer, or tot of rum, was customary.³⁹ Furthermore, unless there was an urgent need for the ship to move on imminently, leave was generally given to the ship's company.⁴⁰ Before leave could be taken, however, a sailor needed to wash. If the ship had the facilities, the crew would be given extra bath-water. If there were no baths, sailors would wash from a tub in the mess, which had to be shared with a dozen others. At some ports, such as Portsmouth, sailors were able to go ashore to bathe.⁴¹ Such was the filth accrued on their bodies that, as one sailor described, the effects of scrubbing and yellow soap 'convert our complexions into a likeness of salt beef. As red as beets, we are inspected, bundle over the side, and reach our pints after well earning them by "coaling ship."⁴²

³⁷Wheeler, *The Commission of H.M.S. Pandora*, 123–126; H. Callow, *The Commission of H.M.S. Royal Arthur, Flag Ship, Australian Station. 1901–1904* (London: Westminster Press, 1904), 11.

³⁸Breaks, *The Log of H.M.S. Bonaventure*, 3; Whiteley and Davis, *The Commission of H.M.S. Bulwark*, 21–22.

³⁹Dunslow and Jones, *The Commission of H.M.S. Eclipse*, 37; Maclean, Macdonald, and Yexley, *The Log of H.M.S. Caesar*, 9–15.

⁴⁰W.H. Watts, *The Commission of H.M.S. Retribution, North American and West Indies Station, 1902–1904* (London: Westminster Press, 1904), 131.

⁴¹Lance, 'Interview with Stanley Munday'; Lance, 'Interview with Arthur Ernest Lilley'.

⁴²Maclean, Macdonald, and Yexley, *The Log of H.M.S. Caesar*, 9–15.

COALING AT SEA

In the late nineteenth to early twentieth century, with the perception of an increased chance of naval hostilities growing, a further method of coaling was discussed seriously: coaling at sea.⁴³ It was hoped that this method of coaling would function in a similar way to that from a collier in harbour but with the increased convenience that it could be accomplished while a fleet was moving or blockading on the open sea. This would negate one of the biggest flaws of a steam navy. Unlike wooden warships, which could stay at sea, and crucially blockade, for as long as it was adequately supplied, steamships had to refuel regularly, even when largely static. This meant that a significant portion of naval strength would be absent from strategic duties whilst it coaled.

Stores had often been transferred at sea in the past, and coal was no exception. But these processes were slow and limited and could not hope to satisfy a modern warship's needs, especially after 1880. To solve this issue, more than 60 systems for the coaling of the fleet at sea were submitted to the Admiralty between 1888 and 1905, and several were extensively tested. Despite this, and fears that "the Germans [were] doing their best to perfect a promising apparatus of their own," by 1915 no mechanism for coaling at sea had yet been adopted.⁴⁴ Instead, British warships on manoeuvres still had to leave the fleet and coal in sheltered harbours.⁴⁵ Indeed, there seems to be little evidence "that any of the belligerents coaled at sea during the First World War."⁴⁶ Warwick Brown has argued that this was because "no navy considered that the capacity of any of the many systems for coaling at sea on offer before the First World War showed sufficient promise to warrant allocating them a significant portion of their precious budgets or reorganising their logistical agreements to suit the system's requirements."⁴⁷ He also goes on to point out that the systems simply did not develop fast enough to deal with the

⁴³An excellent survey of these attempts and their failings can be found in Warwick Brown, 'When Dreams Confront Reality: Replenishment at Sea in the Era of Coal', *International Journal of Naval History*, (2010), <http://www.ijnhonline.org/2010/12/01/when-dreams-confront-reality-replenishment-at-sea-in-the-era-of-coal/>.

⁴⁴*Bluejacket and Coastguard Gazette*, 1906.

⁴⁵*NSW Northern Star*, 24 February 1915.

⁴⁶Brown, 'When Dreams Confront Reality'.

⁴⁷*Ibid.*

ever-increasing demands of modern warships. A further explanation can be found in the words of W.H. Whiting, the Assistant Director of Naval Construction, who argued that "such value as it possesses is a minimum in the case of a nation which has a great preponderance in coaling ports and in ships, and whose ships are generally larger and can carry a larger coal supply than those ships of the same class belonging to foreign powers."⁴⁸ With this great advantage over its rivals, it was acknowledged that the ability of the Royal Navy to coal at sea was not as central to the action of the fleet in war as it had been made out earlier in the period.

NAVAL LABOUR

Amongst sailors, there seems to have been near universal loathing for "the unpleasant task of coaling," especially from a collier.⁴⁹ Getting in the "black diamonds" was widely regarded as the most dangerous, most hated, and most filthy task: Joiner First-Class George Clarkson suggested that "a shadow would come over the ship as soon as you heard you were coaling."⁵⁰ The detestation often made sailors look backward—"I wish I could get hold of that man who first found coal"—or forward—"oh for oil fuel!"⁵¹ Consequently, coaling was a stressful business; the combination of exhaustion, discomfort, and irritation could put the ship's company on edge, and tensions could easily spill over.⁵² As a result, coaling was often satirised in print. A cartoon from the *Bluejacket* in 1906 suggests that coaling was perhaps the least glamorous, and best hidden, parts of a sailor's life.

The only thing, it appears, that could make the task even less enjoyable was inclement weather. Rain in particular made the experience extremely uncomfortable.⁵³ The *Encounter* suffered such a fate in New Zealand with unceasing rain during coaling, "which drenched all

⁴⁸ 'Metcalf's System of Coaling at Sea', TNA, ADM 1/8004.

⁴⁹ Gibbs, *The Cruise of H.M.S. Grafton*, 3; Lance, 'Interview with James George Cox'.

⁵⁰ Masker, 'The China Station in Other Days', 522–533; McKee, *Sober Men and True*, 119–122.

⁵¹ Parker, *The Commission of H.M.S. Implacable*, 97; McKee, *Sober Men and True*, 120.

⁵² Noble, 'Tween Decks in the Seventies, 188.

⁵³ Brown, *The Log of H.M.S. Repulse*, 38.

hands to the skin, making coal-ship a very unpleasant and slow job.”⁵⁴ Coaling was also especially disagreeable in warm climates like Gibraltar, where “for the first four or five hours all was well, but when the sun got strong and our feet got sore with running up and down the planks things altered, and this did not make our job any easier.”⁵⁵ Similarly, uncomfortable heat was witnessed at Sierra Leone and Yokohama.⁵⁶ High temperatures could also be dangerous, especially if the commander was particularly ruthless. The diary of Able Seaman Percy Rooke, serving on H.M.S. *Canopus*, recalls coaling at Abrolhus Rocks near Brazil:

This has been our hardest coaling, as we were working in the sun and the temperature was ninety degrees in the shade. Quite a lot of men collapsed during the day, and our captain expressed his gratitude by telling us that the coal must damn well come in faster. If not, he would walk around himself and we knew what that that meant. Yes, we all knew what that meant: he would get his suit dirty and could not drink so much whiskey.⁵⁷

Although this episode relates to the First World War during the pursuit of von Spee in 1914, when it was particularly important to complete coaling quickly, it highlights the sometimes-extreme conditions that sailors could face. In peace, however, few captains were this tyrannical, and more generally accounts of coaling were perhaps skewed by the extreme toll that coaling took on a sailor. Indeed, they often used a diary to vent their anger, and thus a detested officer or a hated task was more likely to be documented than a good one.⁵⁸

In some ways, coaling was one of the only levelling times on a ship. Unlike some foreign navies, both British officers and men were involved in coaling, and almost all members of the crew had a role to play: It was usual for even the chaplain and cooks to be involved.⁵⁹ Only essential work continued during coaling, and specific jobs, such as taking back

⁵⁴Fowler, *The Log of H.M.S. Encounter*, 77.

⁵⁵Parker, *The Commission of H.M.S. Implacable*, 103.

⁵⁶Journal kept by Edward Charrington, 1894–1898, Royal Naval Museum, Manuscript Collection, 1999/51/5; Gibbs, *The Cruise of H.M.S. Grafton*, 57.

⁵⁷McKee, *Sober Men and True*, 50.

⁵⁸*Ibid.*, 59.

⁵⁹Wragg, *Royal Navy Handbook*, 173; Wheeler, *The Commission of H.M.S. Pandora*, 123–126; Brown, *The Log of H.M.S. Repulse*, 107.



Fig. 7.5 The Marine band of H.M.S. *Prince George* playing during coaling c. 1900. Out of copyright—old photos book

the empty sacks, were found for those, like telegraphists, who needed to protect their hands.⁶⁰ Other members of the crew performed service roles: “perhaps the most welcome figure was the ship’s steward who presided over a grog-tub filled with lime juice.”⁶¹ Furthermore, the Marine band played lively tunes throughout the coaling to keep spirits high (see Fig. 7.5).⁶²

Although all naval hierarchy and deference were relaxed during coaling with even swearing being permitted—all being equals under the coal dust—officers were often in supervisory roles making sure it was completed efficiently and properly.⁶³ Indeed, although the commander was technically involved in the process, this actually meant that he was “immaculate under cap-cover and sea boots.” His role was to encourage

⁶⁰ McKee, *Sober Men and True*, 120–122.

⁶¹ Wheeler, *The Commission of H.M.S. Pandora*, 123–126.

⁶² McKee, *Sober Men and True*, 120–122.

⁶³ Ibid.

the men, circulating with a rating holding a blackboard with a picture of a pint of beer on it, proclaiming “the sooner you get in, the sooner you can get ashore and have one of these.”⁶⁴ Thus, whilst concepts of rank may have been eased, the nature of the roles performed in the process of coaling meant that implicit hierarchies of what labour was, and was not, appropriate for certain ranks remained.

COPING MECHANISMS

Whilst a sense that the whole crew had to face coaling together may have alleviated the pain and monotony to some extent, it is perhaps unsurprising that other methods for coping with loading fuel emerged in this period. A particularly eye catching technique was through “coaling dress.” The log of the *Pandora* notes:

It is very amusing to observe the number of grotesque and ludicrous figures that flit about on coal-ship days. Any old clothing suffices to coal in, and as a rule the bluejacket seems to revel in dressing himself as oddly and outrageously as he possibly can. All sorts of characters are represented—from a Prime Minister to a shoeblack.⁶⁵

The log of H.M.S. *Caesar* even records one man dressed in a sombrero and cricketing gear.⁶⁶ This practice appears to have been universal because the log of the *Bulwark* also notes that “hands were piped to dress in coaling suits, which presented quite a fancy-dress display.” The same log also notes that “everyone was looking pretty black, making it quite laughable, for it is rather hard to distinguish one’s own messmates.”⁶⁷

Perhaps the most striking record of “coaling dress,” was recorded in the *Bluejacket*, a periodical written by, and for, the lower deck sailor. In preparation for coaling, it states, the men were “rigged out in all sorts, shapes, sizes and colours, consisting of last commission’s football and

⁶⁴Maclean, Macdonald, and Yexley, *The Log of H.M.S. Caesar*, 9–15; McKee, *Sober Men and True*, 120–122.

⁶⁵Wheeler, *The Commission of H.M.S. Pandora*, 123–126.

⁶⁶Maclean, Macdonald, and Yexley, *The Log of H.M.S. Caesar*, 9–15.

⁶⁷Whiteley and Davis, *The Commission of H.M.S. Bulwark*, 15–16.

theatrical duds." One man, in particular, referred to as "our hero" stood out,

Being in the latest fashion, namely: a "Directoire" dress, composed of a canteen de la spud sack, cut low at the bosom, showing his velvety skin and beautiful swan-like neck off to perfection, and also exposing to view 'Ajax defying his mother-in law,' tattooed in deep relief on his manly chest. The dress was gathered in at the waist with half-a-fathom of nettle stuff, and was cute from amidships ... showing the 'La Milo' curvature ... of his Venus-like hips, which were encased in a pair of Pusser's special steaming-covers ... An improvement on the "Merry Widow" hat, consisting of a Navy straw, with the roof gone, completed the rig.⁶⁸

Such reminiscences recall the bonhomie of the lower deck but also how fancy dress and camaraderie were key coping mechanisms while coaling. This, of course, drew on "naval traditions [which used] ... dress-ups and high jinx as ways of maintaining morale" in tough circumstances.⁶⁹ Moreover, they show how coaling offered sailors the opportunity for individual expression in a life of discipline and uniform.

Another mechanism for coping with the monotony, hard work, and discomfort of coaling was competition. This was unsurprisingly encouraged by the navy because the ability to achieve high rates of coaling was key to swift mobilisation. As the log of the *Pandora* explains:

Coaling in the navy is, of course, one of the most important evolutions we do; because the quicker a ship can fill her bunkers in time of war, the quicker she can put to sea again. Owing to this, the competition is very great between the several classes of ships to make or break records.⁷⁰

Flags on the yardarm were used by the ship's company to work out the rate needed to break the current record, and the doctor would write the record onto a blackboard.⁷¹ By introducing an element of competition

⁶⁸ *Bluejacket and Coastguard Gazette*, 1909.

⁶⁹ Tom Griffiths, 'A Polar Drama' in Martin Thomas (ed.), *Expedition Into Empire: Exploratory Journeys and the Making of the Modern World* (London: Routledge, 2014), 171.

⁷⁰ Wheeler, *The Commission of H.M.S. Pandora*, 123–126.

⁷¹ Maclean, Macdonald, and Yexley, *The Log of H.M.S. Caesar*, 9–15.



Fig. 7.6 The record-breaking crew of H.M.S. *Caesar*, who coaled at more than 200 tons/hour from a collier. From Maclean, Macdonald, and Yexley, *The Log of H.M.S. Caesar, 1900–1903*

into coaling, commanders were able to increase coaling rates throughout the period. In encouraging teamwork through competition, it also encouraged solidarity amongst crews, as much as could be found in their sporting teams.⁷² Coaling records were a very serious business, and rates were noted with great reverence in ships' logs. The competition appears to have been most fierce, and consequently the rates were highest, on the larger and strategically more important Mediterranean and China Stations where they could frequently top 200 tons per hour. The importance attached to the breaking of records can be seen by the fact that when H.M.S. *Barham* broke the Mediterranean fleet coaling record, one of the ship's company, John Gilderson, sent a postcard to his mother

⁷²D. Whitson, 'Sport in the social construction of masculinity', in M.A. Messner and D.F. Sabo (eds.), *Sport, Men and the Gender Order: Critical Feminist Perspectives* (Champaign: Human Kinetics, 1990), 20–21.

informing her of the news.⁷³ Photographs of record-breaking crews were also included in logs (see Fig. 7.6). Enthusiasm for records was not just limited to one's own ship either: The log of the *Glory* noted that the "*Ocean* coaled ship, doing very well," and also that the "*Vengeance* coaled ship, making a very decent show of it."⁷⁴

In particular, the logs of ships abroad give a sense of pride in the physical effort of achieving high rates of coaling: the log of the *Good Hope* suggests that the ship's hands worked "like the veritable demons who are credited with forging the links of fate."⁷⁵ Such sentiments suggest that coaling became a key way for sailors to perform their masculinity. Indeed, in an age in which sailors no longer sailed and very rarely fought battles, coaling ship allowed them to exert themselves physically. By displaying such strength and endurance as to break a record, the men were able to show their "hardness" or "toughness"—which was "considered a quintessential masculine virtue"—which "permeated working-class culture." The ability to compete against other crews in a meaningful way also meant that sailors were able to "prove themselves, and thus their masculinity, in the eyes of their peers."⁷⁶ This would not only be to fellow sailors but, through record-breaking crews appearing in periodicals and published books, to the wider public, too. Furthermore, it offered an opportunity to show the masculine virtues particular to both the blue-jacket and to the British racial character.

The opportunity to both show their hardness, and to break the record of their peers, even led the log of the *Good Hope* to suggest that despite coaling being "monotonous [and] wearisome" the element of competition created "cheerful hours of coaling."⁷⁷ The sense of pride in a job well done is particularly emphasised in two submissions to the "Sea-Song Competition" run by the *Bluejacket* in 1906. An entry from E. Prothero of H.M.S. *Victorious* concluded with:

⁷³Joseph Bonnici and Michael Cassar, *A Century of the Royal Navy at Malta* (Malta: BDL, 1999), 26–32.

⁷⁴Butterworth, *The Commission of H.M.S. Glory*, 130.

⁷⁵Robert L. Moore, *Commission and Travels of H.M.S. Good Hope* (Cape Town: W.A. Richards & Sons, 1903), 41.

⁷⁶A. Davies, 'Youth gangs, masculinity and violence in late Victorian Manchester and Salford', *Journal of Social History*, 32, 2, 350.

⁷⁷Moore, *Commission and Travels of H.M.S. Good Hope*, 41.

And now, my boys, we've finished,
 And it had been very sad,
 But we've beaten the flagship,
 So we can't help feeling glad.⁷⁸

A second, by W.A. Chapman, reiterates the theme concluding with the line "we've earned a rest, we've done our best, a-coalin' ship to-day."⁷⁹ Also emphasising the dirty, physically demanding, but ultimately rewarding process of coaling ships are the ubiquitous images of crews after the process was complete, covered head to toe in black dust, often smiling through the grime whilst holding a chalkboard proclaiming the rate achieved. As the *Navy and Army Illustrated* suggested, "Virtue, however, seems to bring its own reward and the men are rarely so cheerful and convivial as after a good heavy coaling. Many a good song is sung and story told on these occasions."⁸⁰

Although the highest rates of coaling were to be found on the largest stations, it is still curious that an enthusiasm for competition appeared to be largely absent on the Australia Station. Here, rates were less regularly recorded and, where they were, coaling is slow; less of the crew is involved; and smaller amounts of coal are taken aboard.⁸¹ The records at the end of the period in question on the station remained fewer than 130 tons per hour, which is significantly lower than those on larger stations.⁸² Perhaps this reflects the Australia Station's relative isolation from danger, its small fleet, and the more laid back nature of station life.

DANGERS OF COALING

Coaling a warship was not only a physically demanding, uncomfortable, and filthy experience, it was also fraught with danger. Both full coal sacks and the coaling equipment were easily heavy enough to crush anyone unfortunate enough to be underneath them when they fell, and this happened with alarming regularity. This danger was escalated by the sense

⁷⁸ *Bluejacket and Coastguard Gazette*, 1906, 305.

⁷⁹ *Bluejacket and Coastguard Gazette*, 1906, 149.

⁸⁰ *Navy and Army Illustrated*, Sept 17 1898.

⁸¹ H. Callow, *The Commission of H.M.S. Royal Arthur, Flag Ship, Australian Station. 1901-1904* (London: Westminster Press, 1904).

⁸² Fowler, *The Log of H.M.S. Encounter*, 44, 86.

of competition that infected nearly every coaling day. Speed led to an increased chance of improperly secured equipment, collisions, and carelessness. Such was the rate of coaling accidents that one sailor suggested that on "nearly every ship some poor soul lost his life" as a result. In fact, death and serious injury were so common during coaling that the process would not stop when it happened.⁸³ Not only was the process inherently dangerous, but also the regularity of coaling, generally at least once a week, led to this high number of accidents.

Concerns about the dangers of coaling were raised in Parliament as a result of the rate of these accidents, somewhat belatedly, in both 1909 and in 1913. On the second occasion, the new First Lord of the Admiralty, Winston Churchill, answered that

The risks attached to coaling are great, but in many cases accidents occur through want of care at a critical moment, and this, no action on the part of the Admiralty can prevent ... I am informed that as compared with the large quantities of coal handled under so many varying conditions, the number of serious accidents is small.

Even if it was "doubtful whether it would serve any useful purpose," the question did precipitate a Parliamentary Paper: *The particulars of the more serious accidents which have occurred during the coaling of His Majesty's ships in the years 1910, 1911, and 1912*.⁸⁴ The report detailed only the most serious accidents that had occurred while coaling stating that in these three years, 16 crew members had been killed and 23 seriously injured. Most common serious injuries and deaths were a result of a hoist of coaling bags falling, and several were as a result of the coaling apparatus collapsing. Although most accidents happened above decks, stokers could easily be trapped in bunkers should the engineer sub-lieutenant's attention wander and too much coal be sent down the chute. As a result, there were several occurrences of carbon monoxide poisoning

⁸³Lance, 'Interview with Arthur Ernest Lilley'.

⁸⁴Coaling Accidents (Navy), House of Commons Debate, 6 July 1909, *Hansard*, vol. 7 col. 1019; Coaling Accidents (Navy), House of Commons Debate, 15 January 1913, *Hansard*, vol. 46, cols 2046–7.

in the coal bunkers, and although these were usually not fatal, one case included in the report proved to be so.⁸⁵

Reports given in logs suggest that most accidents and deaths involved the hoist wires snapping and the bags falling, thus confirming the findings of the Parliamentary Paper.⁸⁶ They also record less frequent types of accidents, which show just how dangerous and unpredictable coaling could be. The log of the *Eclipse* recalls that “several accidents occurred” during coaling, including a petty officer slipping down an empty bunker, fracturing his ribs and being sent to Yokohama Hospital.⁸⁷ Accidents also included collisions with other vessels. The *Retribution*, coaling “alongside” in rough weather in the West Indies, “nearly put her funnel through the bottom of the first cutter.”⁸⁸ Similarly, on the Mediterranean Station, the steamship *Henry Aming*, supplying coal for the *Inflexible* and *Trafalgar*, was pierced by H.M.S. *Edinburgh* in a collision.⁸⁹ Surprisingly, although the danger of fire was constant with highly combustible coal dust prevalent, few such incidents were recorded as when, at Chefoo on the China Station, a collier full of Welsh coal caught fire.⁹⁰

CONCLUSIONS

This chapter has sought to understand the physical process of coaling a warship with naval men. As a result of the slow and very limited adoption of mechanised coaling, this process was still largely a human one throughout the period. That is not to say that the process was static: in fact, due to the regularity of coaling and the familiarity with the methods involved, the rates of coaling improved throughout the period.

The use of manpower for coaling may have made sense economically and logistically, but it was a dirty, exhausting, and dangerous process.

⁸⁵ British Parliamentary Papers, 1912–1913 [Cd. 6634] *Navy (coaling accidents). Particulars of the more serious accidents which have occurred during the coaling of His Majesty's ships in the years 1910, 1911, and 1912.*

⁸⁶ Lance, ‘Interview with Arthur Ernest Lilley’.

⁸⁷ Dunslow and Jones, *The Commission of H.M.S. Eclipse*, 65.

⁸⁸ Watts, *The Commission of H.M.S. Retribution*, 172.

⁸⁹ W.E. St. Clair, *Three Years with the Mediterranean Fleet or the Cruise of H.M.S. Inflexible* (Valetta: L. Critien, 1893), 30.

⁹⁰ Gibbs, *The Cruise of H.M.S. Grafton*, 100.

Indeed, surviving records from those seamen involved in coaling present it as a detested procedure only made worse by inclement or oppressive weather. As a result, coping mechanisms were developed aboard. Competition with other ships for station records and the promise of a beer after coaling not only helped to conceal the monotony and pain of coaling but also aided in improving mobilisation speeds. Other methods, such as coaling fancy dress and the band playing jolly tunes, helped to create a more informal atmosphere during coaling, and the allowance of swearing and the fact that all members of the crew had an active role in coaling were integral to morale. Such mechanisms were effective, and this is reflected in the high coaling rates achieved by naval crews. These coping mechanisms also show us that these seamen were defined during coaling by their highly-disciplined nature, which was epitomised by co-operation and, often, a spirit of competition. Moreover, coaling gave sailors a chance to show their hardness and physical prowess, thus allowing them to prove their masculinity to their crewmates, to others on the stations, and even to the public in published photographs through their speed, strength, and endurance.

The shift to oil completely changed the experience of fuelling warships: as one publication suggested, it was "dirt, smoke, and hard labour against cleanliness, lack of smoke, and light labour." Offering a comparison between the two, it argued that the end of coal burning would remove "the dirtiest work the sailor must face" caused by the "whirl of dust" that emanated from the fuel. The process of fuelling with oil—"a new and cleanly method"—also eradicated the "laborious and necessary sequel to coaling: holystoning the decks of a war-vessel."⁹¹ As well as the advantages to the Admiralty in adopting oil for warships—such as speed, range, flexibility and cleanliness of burning—there were clear advantages to the ordinary sailor, too.

Yet, whilst oil removed the two most hated of activities aboard ship—coaling and washing the decks afterward—it also removed an opportunity for sailors to prove their mettle and to display their masculinity in a performative way. Perhaps this explains why, when coal had been displaced by oil as the fuel for the fleet, some seamen looked back on the coaling experience with rose-tinted glasses. Leonard Charles Williams, one of the last to serve aboard a coal-powered ship in the 1920s, recalled

⁹¹ 'British coal or oil', *Illustrated London News*, 5 March 1910, 348–349.

that “whilst most of my classmates were deploring it, I was looking forward to the experience of coaling ship ... I would be able to say that I had served in one, and also be able to spin my crop of yarns about them.”⁹²

⁹²Leonard Charles Williams, *Gone a Long Journey*, (Bedhampton: Hillmead, 2002), 41–42.

PART IV

Sojourning at the Coaling Station

A Maritime Community?

One of the many changes caused by the shift from sail to steam was that warships could no longer stay at sea for extended periods but instead had to stop regularly at foreign stations to refuel. Even when cruising at low speeds, most ships of this period had to refuel at least every seven days. As a result, ships were regular visitors to coaling stations where they would coal, repair, and “show the flag.”¹ Moreover, as ships and navies grew ever larger, the number of sailors serving abroad increased—particularly in the 1890s—and this had implications for both the sailor’s experience of the station on leave and for the station and its resident and transient populations.² Between 1870 and 1908—after which Anglo-German tensions led to an abundance of sailors in home waters—sailors overseas actually outnumbered those on home stations with their numbers reaching a peak of 44,693 in 1905.³ Unsurprisingly, most sailors were located on the larger and strategically more important stations throughout the period. The highest proportion of sailors abroad were stationed in the Mediterranean with a total of approximately 40% for this period with approximately 20% on the China Station. Although there

¹For a thorough exploration of this idea, see Jan Rüger, *The Great Naval Game: Britain and Germany in the Age of Empire* (Cambridge: Cambridge University Press, 2007).

²The number of sailors abroad in 1870 (33,549), 1880 (33,738), 1890 (39,385), 1900 (67,058). See *Ships in Commission*.

³Brian Lavery, *Able Seamen* (London: Conway, 2011), 146.

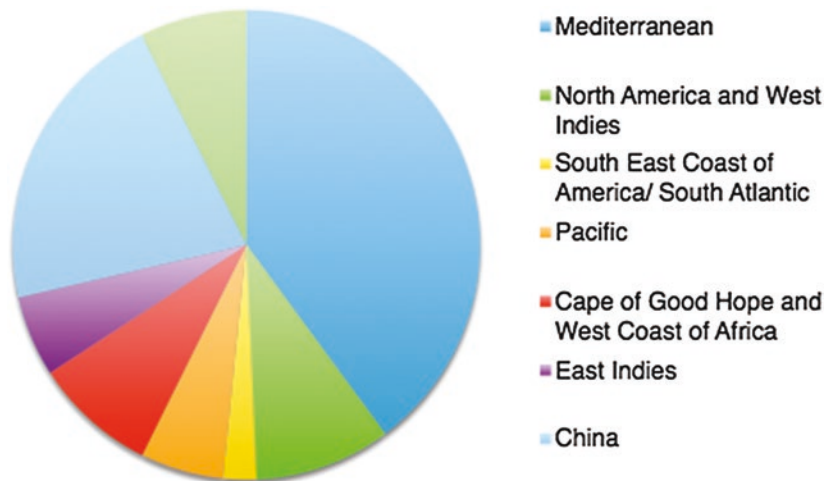


Fig. 8.1 Proportion of sailors on each station from 1870 to 1910

was variation during the period as a whole, fewer than 10% of total sailors abroad were ever present on any single one of the other stations.⁴ Whilst on these stations, sailors were, by nature, extremely mobile as they moved from port to port, travelling vast distances and stopping at many different places whilst in foreign climes (Fig. 8.1).

Not only were sailors abroad in large numbers, but leave granted at stations was often generous. In fact, most sailors spent over 70% of their commissions anchored in port. Naval regulations stated that on “Foreign Stations ... Commanders-in-Chief will give such orders relative to leave on their respective stations as the climate or local circumstances may make expedient.”⁵ In practice, as E.G. Anning of the *Argonaut* explains, a sailor’s time at a station was usually not a fleeting visit: “A ship on a foreign station,

⁴See *Ships in Commission*.

⁵*Kings Regulations & Admiralty Instructions—1913. For the Government of His Majesty’s Naval Service, Volume I* (London, T. Fisher Unwin: 1913), 301. Walton argues that officers tended to get more leave, but the example he cites suggests that the crew were unhappy because of this. The fact that refusing leave to a sailor was a punishment suggests that it was an expectation for bluejackets at foreign ports. Oliver Walton, *Social History of the Royal Navy 1856–1900*, unpublished PhD Thesis, Exeter, 2003, 163.

moving from port to port, offers continual opportunity for diversion, and as an abundance of leave is granted to men of good character.”⁶ In reality, these stays could be reasonably lengthy, and Edward Charrington recalled that he spent “a very pleasant fortnight at the island” of St. Helena.⁷ Although leave was generally on average approximately 9 to 10 days long, there were instances of much longer stays. For example, HMS *Andromeda* spent 126 days at Wei-Hai-Wei. If time in a dry dock was needed, time on a station could be even longer.⁸ Not all of this time would be spent ashore with some time taken on the routine tasks aboard. Yet, with so much time allowed for sailors on leave, stations were sites of leisure and recreation. Shore leave in an interesting port provided relief after the exhausting and dirty work of coaling and was a key facet of attempts to keep morale high in the service.⁹ It was also a place of interaction with other sailors—of many nationalities—British migrants, local populations, and the landscape itself. Leave was therefore a highly valued part of a sailor’s service, an escape from the monotony of hierarchy and routine. As such, the denial of leave was an effectual punishment for minor offences, but to do so for a whole crew could be very detrimental to a ship’s morale.¹⁰

The coaling station, and its environs, was therefore a significant imperial space and the sailor a notable transient imperial actor within it. As such, this section makes the argument that although these sites and

⁶E.G. Anning, F.J. Bentley, and Lionel Yexley, *The Log of H.M.S. Argonaut, 1900–1904. China Station* (London: Westminster Press, 1904), v. This goes against the suggestion made by Walton that only officers were able to regularly go ashore, with men of the lower deck only occasionally ashore and even then with only one watch at a time or only some eligible. He does, however, suggest that the new regulations in 1890 meant that “men who conduct themselves properly” had the same right as officers. In practice, it seems leave was largely down to the personal preference of officers, and because it was seen as being crucial to the morale of the crew, it was frequently given if possible. See Walton, *Social History of the Royal Navy*, 163.

⁷Journal kept by Edward Charrington, 1899–1902, Royal Naval Museum, Manuscript Collection, 1999/51/7.

⁸Figures taken from the Westminster Press Log series. For example, A.C. Spooner, *Log of HMS Andromeda, 1904–1906* (London: Westminster Press, 1906).

⁹Restricting leave had hugely detrimental effects on morale. See Walton, *Social History of the Royal Navy*, 163.

¹⁰A.C. East, for example, was barred from an excursion because he refused to be vaccinated. He expresses his disgust at this decision in his entry. Diary of A.C. East, H.M.S. *Natal* on its Cruise to India as escort to Royal Visit, 27 December 1911, National Museum of the Royal Navy, Manuscript Collection, 95/90 (28).

actors have been, at best, seen as marginal to the British world in the period of high imperialism, assessing them sheds a great deal of light on how Britons interacted with spaces and peoples within its areas of influence. In doing so, it changes our perspective on the geography of the global British world by showing coaling stations to be crucial not only to the defence and maintenance of power but also to cultural understandings of the world.

Whilst it is easy to imagine these stations as marginal, isolated ports at the edge of the land, they were of course interlinked across the oceans and seas. The need to refuel regularly meant that many of the links were formed by naval ships, largely British, but also by other navies. Thus it is important to understand these places as part of wider maritime systems understood as “sites that are connected to others around the world” by social and cultural networks.¹¹ Moreover, accounts of these visits disseminated to a domestic population with a voracious appetite for the Royal Navy and the empire in the late nineteenth and early twentieth centuries—whether orally, through newspapers, or through published accounts of commissions—meaning that they shaped the public perception of naval life abroad.¹² Thus, like travel books, they gave domestic Britons “a sense of ownership, entitlement and familiarity with respect to the distant parts of the world that were being explored, invaded, invested in, and colonised ... They created a sense of curiosity, excitement, adventure and even moral fervour about European expansionism.”¹³ These logs not only allowed those at home to feel part of the imperial project, they also cemented the link between the Royal Navy and the empire.

Yet what was portrayed to a domestic audience was not necessarily the whole picture. Most published accounts suggest an almost entirely positive account of the British sailors’ time ashore, often as a result of

¹¹William Cronon, cited in Tim Cresswell, *Place: A Short Introduction* (Oxford: Blackwell, 2004), 43.

¹²Ships’ logs in particular appear to have been very popular, with more than forty being published by the Westminster Press in just ten years and many being published by other presses in addition. Generally priced at four shillings, these would have been easily affordable to contemporaneous members of the middle class and above as well as available to others through public and circulating libraries as well as in buildings dedicated to service personnel.

¹³Mary Louise Pratt, *Imperial Eyes: Travel Writing and Transculturation* (London: Routledge, 1992), 3.

an explicit mission to present the new Jack Tar as a reformed character: sober, responsible, and a guardian of empire—far from the drinking, whoring, and fighting “jolly jack tar” of the caricatures of George Cruickshank and Thomas Rowlandson.¹⁴ There is almost a complete omission of alcohol in the records published by Westminster Press, for example; a large number of which were disseminated to a domestic population. Not only did these logs portray sailors as the moral guardians of empire, they also only included those ships whose commissions had been “happy.”¹⁵ The accounts, consciously and unconsciously shaped by public expectations of a morally upright and disciplined navy, omit many of the facets of leave abroad that had important effects on the maritime community and those others who were present.¹⁶

The chapters within this part of the book therefore seek to show a more rounded account of what these huge influxes of sailors did whilst on leave at stations after coaling: their interactions with the local populations with other sailors and the with the landscape. Furthermore, they assess how the sailors’ need for services and entertainment, as well as their voracity for drink and sex, created complex maritime communities, which both exhibited fraternal relationships as well as antagonism caused by race, nationalism, alcohol, and disease.

The ways that sailors behaved at the stations can give us further insight into how they viewed their own identities. It is clear that sailors saw themselves as different from most Britons in the late nineteenth century as the result of being predominantly from port towns and subsequently spending long periods abroad and at sea.¹⁷ Although Peter Mandler has suggested that “British” was the *de facto* trump identity that overrode all others, and Walton has argued for the importance of naval identity, at the foreign station sailors can also be seen to exhibit

¹⁴For assessments of this trend, see, for example, Leggett, ‘Navy, Nation and Identity in the Long Nineteenth Century’, 7. The seminal text describing this is Mary A. Conley, *From Jack Tar to Union Jack: Representing naval manhood in the British Empire, 1870–1918* (Manchester: Manchester, 2009). For examples of caricatures, see James Davey and Richard Johns, *Broadsides: Caricature and the Navy 1756–1815* (Barnsley: Seaforth Publishing, 2012).

¹⁵Within the text at the end of each book in the series, this fact is explicitly stated.

¹⁶Don Leggett, ‘Navy, Nation and Identity in the Long Nineteenth Century’, *Journal for Maritime Research*, 13, no. 2 (2011), 151–163.

¹⁷*Ibid.*

imperial, western, or maritime identities. Thus, it is imperative to recognise how the “foreignness” of these stations directly affected the relationships that a sailor formed abroad and subsequently what would be written about a certain place.¹⁸ Moreover, it shows how these bluejackets were viewed by their officers, showing class and rank snobbery that governed how they spent their time abroad.

WESTERN COMMUNITIES AT STATIONS

Coaling stations may have been disparate—in terms of location, size, demographics, and importance—but as important nodes essential to the movement of naval ships they became connected sites where transient sailors from different ships would gather when on leave. With the furthest reach of any navy globally, often these were mostly British sailors, but as other powers’ navies grew in stature it became common for Royal Navy tars to meet sailors of other nationalities at these sites.¹⁹ In this way, these foreign spaces appear to be similar to British “sailortowns” with other British sailors, as well as a whole panorama of sailors of other nationalities, to be found around the station.²⁰

It is perhaps unsurprising that many bluejackets sought the company of fellow Britons, and especially other members of the navy, when finding themselves in a strange, foreign port.²¹ Often the crews of other British ships would invite sailors aboard for smoking concerts and supper, thus offering the chance to fraternise with old friends.²² These

¹⁸Peter Mandler, ‘What Is “National Identity”? Definitions and Applications in Modern British Historiography’, *Modern Intellectual History*, 3, no. 2 (2006), 271–297; Walton, *Social History of the Royal Navy*, 162.

¹⁹Tars, or more properly Jack Tars, is a colloquial term for sailors.

²⁰An excellent discussion of sailortowns, and sailorhoods, can be found in Louise Moon, “‘Sailorhoods’: Sailortown and Sailors in the Port of Portsmouth circa 1850–1900”, unpublished PhD thesis, University of Portsmouth, 2015. The ‘otherness’ of these places is described in Brad Beaven, ‘The resilience of sailortown culture in English naval ports, c. 1820–1900’, *Urban History*, 43, 1 (2016), 72–95.

²¹Walton suggests that ‘Naval membership transcended ship membership’, Walton, *Social History of the Royal Navy*, 156.

²²J.B. Brodie, Ray, A.F., and Yexley, Lionel, *The Log of H.M.S. Goliath, China Station, 1900–1903* (London: Gerrards, 1903), 62, 74; A.H. Tyler, *The Commission of H.M.S. Lancaster, Mediterranean Station, 1904–1906* (London: Westminster Press, 1906), 42. This was also true at home ports, see Moon, “Sailorhoods.”

events were generally separated by rank and sometimes even by role within a ship with, for example, stokers and engineers gathering separately.²³ Sailors could also guarantee British company by visiting spaces designated for naval men, whether they were naval canteens, Junior Officers' Clubs, United Services Clubs, or sailors' homes, depending on their rank and the station they occupied. In general, these offered refreshments, billiards, bridge, reading materials, concerts, singing, and sleeping quarters.²⁴ The ability to stay on shore offered sailors a great deal of freedom and flexibility when on leave, escaping the rigid hierarchies of the ship.²⁵ Some, such as those on the Mediterranean Station, also had fives, racquet, and tennis courts, which were immensely popular with junior officers.²⁶ Where a station had a garrison, sailors would frequently visit to enjoy a meal and beer or a smoking concert or be guided round the sights by the soldiers.²⁷ There were also joint recreation rooms for services, which offered similar facilities to the purely naval ones.²⁸ The popularity of freemasonry meant that lodges were also a place of familiarity for many naval men abroad.²⁹ What was particularly obvious about these connections was that they were based on rank, and naval men would usually meet with those of an equivalent status in other forces rather than other ranks in their own crew.³⁰

²³Walton, *Social History of the Royal Navy*, 172.

²⁴John Anderson Dougherty *The East Station; or the Cruise of H.M.S. Garnet 1887–1890* (Malta: Muscat Printing Office, 1892), 27, 130; H. Callow, *The Commission of H.M.S. Royal Arthur, Flag Ship, Australian Station. 1901–1904* (London: Westminster Press, 1904), 12–16; Journals of Donovan C. Roe, 1911–1912, NMM, JOD/92/2.

²⁵Diary of Petty Officer Lew Hanbridge, H.M.S. *Philomel*, 11 January 1916, British Library, MSS. Eur.C.172. Royal Sailors' Homes were modelled on ship structures, however, as it was believed it would be less 'alien' to sailors when ashore and would provide them with a sense of familiarity. See Moon, "Sailorhoods," 31–79.

²⁶Journal kept by Edward Charrington, 1890–1892, Royal Naval Museum, Manuscript Collection, 1999/51/3.

²⁷Watts, *The Commission of H.M.S. Retribution*, 131; Brodie, Ray, and Yexley, *The Log of H.M.S. Goliath*, 130; Journals of Donovan C. Roe, 1911–1912, NMM, JOD/92/2; Whiteley and Davis, *The Commission of H.M.S. Bulwark*, 5.

²⁸Dougherty, *The East Station*, 22.

²⁹Walton, *Social History of the Royal Navy*, 173.

³⁰For example, Petty Officer Lew Hanbridge meets with Warrant Officers of the RFA and Sergeants of the Royal Artillery in Bombay. Diary of Petty Officer Lew Hanbridge, H.M.S. *Philomel*, British Library, MSS. Eur.C.172.

Just as the crews of different British ships would socialise together, if a foreign man-of-war was in port, their crews often joined British crews in activities. Even where an entire ship's company was involved—or indeed a cross-section of it—rank remained of primary importance: a British bluejacket was far more likely to mix with an American rating, for example, than his own officers. Similarly, those of an officer class would mix with their foreign equals as well as the resident dignitaries of that station and its surroundings. These social occasions would often be held aboard. British ships would be visited by high-ranking naval officers: at Yokohama the *Goliath* attracted visits from Japanese and American admirals, and at Wei-Hei-Wei a ball on board the *Glory* was attended by the wife of the American Rear Admiral.³¹ These were important events for the diplomatic role of the Royal Navy by bringing together dignitaries from both land and sea. They also reinforced naval hierarchy with uninited bluejackets preparing the ship with decorations for the balls.³²

These fraternal occasions were not always reserved for the officers, however, and often men of all ranks from foreign vessels were invited to celebrate special occasions on board British warships. At Port-of-Spain, Christmas dinner was shared with Italian sailors; at Esquimalt it was Americans; and at Malta Russian, Greek, and Italian officers came aboard to celebrate New Year's Eve.³³ Invitations for foreign sailors to come aboard British warships were not limited to special occasions but appear to have occurred almost every time British and foreign naval vessels were in port together.³⁴ Nor, perhaps surprisingly, were they reserved for allies of Britain. Indeed, even with war looming on the horizon, German

³¹Brodie, Ray, and Yexley, *The Log of H.M.S. Goliath*, 61; A.E. Butterworth, *The Commission of H.M.S. Glory, Flag Ship of Commander-in-Chief, China Station, 1900–1904* (London: Westminster Press, 1904), 88–89.

³²Walton, *Social History of the Royal Navy*, 182–183.

³³W.H. Watts, *The Commission of H.M.S. Retribution, North American and West Indies Station, 1902–1904* (London: Westminster Press, 1904), 111–116; H. Breaks, *The Log of H.M.S. Bonaventure, Pacific and China Stations, 1903–1906* (London: Westminster Press, 1906), 47; D.E. Whiteley and C. Davis, *The Commission of H.M.S. Bulwark, Mediterranean Station, 1902–1905* (London: Westminster Press, 1905), 120.

³⁴Butterworth, *The Log of H.M.S. Bedford*, 119; Brodie, Ray, and Yexley, *The Log of H.M.S. Goliath*, 80, 86; Charles Mitchell, *The Commission of H.M.S. Renown, 1900–1904, Mediterranean Station* (London: Westminster Press, 1904), 31; Journals of Donovan C. Roe, 1911–1912, NMM, JOD/92/2; Breaks, *The Log of H.M.S. Bonaventure*, 93.

sailors and marines visited a British warship at Tsingtau, a German station.³⁵ Whilst this spirit of fraternity had limitations, as we will later see, such socialisation suggests that some of the tensions of European high politics were felt less keenly in these alien environments where instead British sailors were glad to have the company of what they saw as fellow westerners.³⁶

These interactions were not limited to ships but also extended into the port itself where British seamen would integrate with westerners of a similar rank. Often, officers would join Governors, the resident Admiral, local aristocracy, consuls, missionaries, or other local dignitaries to attend dinners, dances, or even fancy-dress balls.³⁷ It was a chance for many to let off steam, one commentator saying that the average officer “comes ashore from a cruise determined to enjoy himself ... at a ball he dances every dance, if he can.”³⁸ Bluejackets similarly embraced encounters with foreign naval men, and when the Japanese visited Malta, they were entertained by the crew of the *Implacable* at the Royal Naval Canteen as well as a smoking concert at the Clarence Theatre. The log recalls that “it was pleasant to see the jolly tars fraternising with their gallant allies, and many warm friendships were thus cemented. On their departure from Malta, the hands ... cheered the little Japs.”³⁹ A similar feeling of fellowship was manifested when American ships arrived at Esquimalt—in the evenings all over town “groups of English and American

³⁵ Butterworth, *The Log of H.M.S. Bedford*, 102. In fact, there was no animosity between British and German sailors at any level before August 1914, although relations with Russian sailors were often bad. Lavery suggests that the British “got on well with colleagues from other nations, particularly the Germans,” Lavery, *Able Seamen*, 145.

³⁶ Jonathan Hyslop makes a similar point about a white imperial working class, which largely ignored national identities but instead identified themselves against the “othered” non-white workers. See Jonathan Hyslop, ‘The Imperial Working Class Makes Itself “White”: White Labourism in Britain, Australia, and South Africa before the First World War’, *Journal of Historical Sociology*, 12, no. 4 (1999), 398–421.

³⁷ Watts, *The Commission of H.M.S. Retribution, North American and West Indies Station. 1902–1904*, 131; Mitchell, *The Commission of H.M.S. Renown, 1900–1904. Mediterranean Station*, 28; Dougherty, *The East Station; or the Cruise of H.M.S. Garnet 1887–1890*, 52; W.E. St. Clair, *Three Years with the Mediterranean Fleet or the Cruise of H.M.S. Inflexible* (Valletta: L. Critien, 1893), 81.

³⁸ W.R. Kennedy, ‘Sport in the Navy’, *Navy and Army Illustrated*, 20 December 1893, 9.

³⁹ G.R. Parker, *The Commission of H.M.S. Implacable, Mediterranean Station, 1901–1904* (London: Westminster Press, 1904), 27.

men-o'-war's-men could be seen fraternising sociably together." While the officers enjoyed dinner, the ratings could be found singing and enjoying refreshments.⁴⁰

As well as a high level of social interaction, a sense of fraternity amongst the crews of warships of different nationalities on foreign stations was manifested in other ways. On foreign stations the dressing of a ship—a sign of celebration—was extended to include foreign celebrations if they were in port together. For example, British ships on the China Station dressed in honour of birthdays of the German Emperor, the Chinese Emperor, the King of Italy, and the Queen of Denmark.⁴¹ Royal Navy ships also flew an American ensign for Independence Day. In return, foreign warships joined in celebrations for Queen Victoria's Diamond Jubilee, and for coronation day, the Chinese warships at Woosung had "Long live H.M. King Edward VII" stretched between their funnels.⁴² This communal feeling was also manifested in less celebratory matters and was especially prominent when a sailor died in port. It was common practice that the funeral of a seaman of any nationality was attended by representatives from every warship in harbour. Thus, 40 British seamen—as well as Italian, Japanese, and American naval men—were at the funeral of the captain of the German gunboat *Tiger* in Amoy.⁴³ Of course, fraternity was most keenly felt between British warships. A memorandum circulated after the *Bonaventure* was towed off an "unknown rock" praised the actions of other British vessels. It argued that such deeds showed "that a good wholesome spirit for work and feeling of comradeship exists in the China Station."⁴⁴

There were similar levels of interactions and communal feelings between sailors and the white populations at the ports, particularly at stations in the settler colonies. Although these populations were not

⁴⁰Albert Newton, *The Commission of H.M.S. Grafton, Pacific Station, 1902–1905* (London: Westminster Press, 1905), 172.

⁴¹S.E. Dunslow, and R.J. Jones, *The Commission of H.M.S. Eclipse, China Station, 1901–1904* (London: Westminster Press, 1904), 45–47.

⁴²Gibbs, *The Cruise of H.M.S. Grafton*, 58; Brodie, Ray, and Yexley, *The Log of H.M.S. Goliath*, 96.

⁴³Breaks, *The Log of H.M.S. Bonaventure*, 99.

⁴⁴The memorandum is included in the Journal kept by Edward Charrington, 1899–1902, Royal Naval Museum, Manuscript Collection, 1999/51/7.

strictly British, they often felt a strong familial bond between themselves and Britain.⁴⁵ Interactions often occurred through visitors coming aboard warships in harbour, a phenomenon particularly prominent on the Australia Station. Here ships' arrivals were greeted with pride and celebration, and visitors not only came to marvel at the technology but also to reinforce the feeling of the fraternity between the metropole and the wider empire. These acts of "naval theatre," whilst not as spectacular as fleet reviews, were crucial cultural events, in which naval men were "showing the flag" for the navy, Britain, and the empire abroad.⁴⁶ No doubt these visits also had a political role, encouraging the idea of a "Sea League of All the Britons" in the Dominions and justifying the increasing financial contribution they made to naval defence as geopolitical competition intensified in the last decades of the nineteenth century.⁴⁷

When the *Nelson* was stationed at Melbourne, it attracted approximately 3000 visitors in 1 day, and at Wellington it was again the centre of attention with thousands visiting during its stay.⁴⁸ The *Royal Arthur*—part of a royal tour—attracted visitors from hundreds of miles away, which gave the crew opportunity to converse with woodsmen, cattlemen, and miners, many of whom had been born in England.⁴⁹ A unique bond thus was formed on these stations, and the log of the *Nelson* notes that in each port it visited the crew "did much to bind closer the ties that unite Australia to the mother country."⁵⁰ The log of the *Encounter* also recalls that on the Australia Station, the "spirit of brotherhood strongly manifested at each and every port we called at."⁵¹

This sense of kinship was further sustained by a reciprocal relationship between locals and the company of the ship on land. In an article entitled "The Reciprocal Jack Tar," the Australian newspaper the *Evening News* sings the praises of the ordinary British sailor describing "how he

⁴⁵For an extensive study of "British" identities in the empire, see John C. Mitcham, *Race and Imperial defence in the British World, 1870–1914* (Cambridge: Cambridge University Press, 2016).

⁴⁶Rüger, *The Great Naval Game*.

⁴⁷Mitcham, *Race and Imperial defence*, 97–128.

⁴⁸John S. Shearston, *H.M.S. Nelson: An Account of Her First Commission on the Australian Station* (Sydney: Thomas Richards, 1885), 22, 24–25.

⁴⁹Callow, *The Commission of H.M.S. Royal Arthur*, 22–23.

⁵⁰Shearston, *H.M.S. Nelson*, 26.

⁵¹Fowler, *The Log of H.M.S. Encounter*, 125.

entertains at Sydney” and concluding he is “handy afloat, handy ashore.” It highlighted the sailors’ hornpipe display—the dance held aboard the vessel—to the local populace as well as to the crew attending dances ashore.⁵² It was not just the sailors but also the residents, again particularly of the Australia Station, that went out their way to entertain the seamen. In Wellington, for example, “socially, here as elsewhere, the ‘Nelsons’ were everywhere welcomed—nay, even sought after—both officers and men sharing alike in the general goodwill”.⁵³ As a result of this, it became “well known that New Zealanders are Big Navy people.”⁵⁴ In Sydney, residents “found pleasant exercise in entertaining their welcome friends.”⁵⁵ These entertainments included balls, dinners, and concerts, which were often held by residents ashore and then reciprocated by the ships’ crew aboard.⁵⁶ Relationships with the “friends on shore” were also cemented through the ship’s company becoming part of community life. At Sydney and Auckland, the ships’ bands would play weekly in Botanical Gardens whenever they were in town.⁵⁷

Similar occurrences can also be seen on other stations with westernised populations. Often, these interactions came through the ships’ theatrical companies, which entertained the local populaces. At Malta, the *Bulwark*’s amateur theatre company put on a show for a few nights in Royal Clarence Theatre, and when the *Swallow* stopped at Port Stanley it gave islanders a theatrical performance, something that also occurred in Bombay.⁵⁸ A benefit performance in St. Helena was so popular that people were turned away from the door.⁵⁹ These performances not only offered an opportunity to foster goodwill amongst those communities

⁵² ‘The Reciprocal Jack Tar’, *Evening News*, 21 June 1911.

⁵³ Shearston, *H.M.S. Nelson*, 23.

⁵⁴ Fowler, *The Log of H.M.S. Encounter*, 71.

⁵⁵ Shearston, *H.M.S. Nelson*, 270.

⁵⁶ Callow, *The Commission of H.M.S. Royal Arthur*, 65; Shearston, *H.M.S. Nelson*, 23–26, 270.

⁵⁷ Shearston, *H.M.S. Nelson*, 23, 26, 32.

⁵⁸ Whiteley and Davis, *The Commission of H.M.S. Bulwark*, 79; Sam Noble, *Tween Decks in the Seventies: An Autobiography* (London: Sampson Low, Marston and Company, 1925), 229; Diary of Petty Officer Lew Hanbridge, H.M.S. *Philomel*, British Library, MSS. Eur.C.172.

⁵⁹ Journal kept by Edward Charrington, 1894–1898, Royal Naval Museum, Manuscript Collection, 1999/51/5.

they visited, they also encouraged teamwork and cooperation amongst sailors.⁶⁰ The seamen would also join in special occasions if they were in port: at Melbourne, the *Royal Arthur* marked the King's birthday along with colonial troops, sailors, and dignitaries in front of many spectators.⁶¹ The *Bonaventure* likewise joined in the concerts and celebrations for Victoria Day and Dominion Day in Victoria.⁶² This sense of community is also shown by the actions of the crew of the *Goliath* at Yokohama, when they helped Japanese firemen tackle a blaze at the Oriental Hotel.⁶³

Of course, these interactions between station communities and British sailors served a purpose beyond simple good feeling and fraternity. Fearing Britain was becoming a "weary titan," the navy used these displays of pageantry to deliberately cultivate a "cult of the navy" in the settler colonies much as it did in Britain.⁶⁴ The fraternity may well have been genuine, but it also served an important political purpose, i.e., promoting loyalty to Britain in the wider empire, particularly during a period of increased colonial national feeling. Moreover, it was not just the men but also the machinery of the navy that had a crucial cultural role. The regular presence of modern warships manned by highly skilled professional sailors was both a reminder of the strength of Britain overseas and of the need for the Royal Navy in protecting the colony from any foreign aggression. It is noticeable, therefore, that the sailors are often referred to as "protectors" or "guards" of the empire as well as the freedoms that the inhabitants enjoyed. An Auckland newspaper even went as far as publishing a poem, *The Gallant English Tar*, in celebration of the British sailors who "guards with zeal ... our freedom."⁶⁵

In this way, it not only provided "a symbolic link between far-flung colonies and ... the mother country," as Jan Rüger suggests, but a very real link reinforced by human relationships and the visual theatre of huge

⁶⁰Tom Griffiths, 'A Polar Drama' in Martin Thomas (ed.), *Expedition Into Empire: Exploratory Journeys and the Making of the Modern World* (London: Routledge, 2014), 171.

⁶¹Callow, *The Commission of H.M.S. Royal Arthur*, 128.

⁶²Breaks, *The Log of H.M.S. Bonaventure*, 27–28.

⁶³Brodie, Ray, and Yexley, *The Log of H.M.S. Goliath*, 59.

⁶⁴See, for example, Jan Rüger, 'Nation, Empire and Navy; Identity Politics in the United Kingdom 1887–1914', *Past and Present*, 185 (November 2004).

⁶⁵'The Gallant English Tar', *Auckland Star*, 21 July 1900, Supplement.

warships in harbour. Just as the “naval staging of the empire” celebrated “the fleet as the agent of empire” at home—through, for example, colonial ship names—the very deliberate fostering of relationships between the navy and colonial populations did the same abroad.⁶⁶ They may not have equalled the reviews held in Britain, given the much smaller numbers of ships, but visitors and populations at colonial coaling stations were regularly able to see “the Empire’s safeguard and global link ... clad in a striking imagery of heroism, steel, and guns.” The visit of the fleet to Sydney after the inauguration of the Australian navy in 1913 may have been on a grander scale, but much of the festivities would have been familiar to residents. Indeed, throughout the period, these interactions “symbolically link[ed] regional, national and imperial identities.”⁶⁷

SPORT

One of the most pervasive interactions between British sailors and other westerners was through sport, and this was a key factor in the formation of transnational, imperial, naval, and maritime relationships.⁶⁸ Sport not only fostered a sense of competition among sailors, which was useful for fleet exercises—such as coaling, gunnery and signalling—it also helped naval men foster the imagined characteristics of the “imperial man”: self-control, discipline, and *esprit de corps*. It also encouraged the development of relationships between British naval ships, British populations at the station, foreign warships, and local western populations. It helped to cultivate solidarity in colonial societies and developed a sense of imperial fraternity in the settler colonies. Indeed, “sport played a major role in the transmission of imperial and national ideas.”⁶⁹ One officer summed it up thusly: “I have never met one yet who was not fond of sport in some form or other, whether it be hunting, racing, golf, cricket, football,

⁶⁶Rüger, ‘Nation, Empire and Navy’, 162, 173–177.

⁶⁷‘Nation, Empire and Navy’, 178.

⁶⁸Sport was a major pastime for all of the armed forces. An examination of this for the British army can be found in Tony Mason and Eliza Riedi, *Sport and the Military: The British Armed Forces 1880–1960* (Cambridge: Cambridge University Press, 2010). For the American military, see Wanda Ellen Wakefield, *Playing to Win: Sports and the American Military, 1898–1945* (Albany: State University of the New York Press, 1997).

⁶⁹Richard Holt, *Sport and the British: A Modern History* (Oxford: Clarendon, 1989), 203–209, 223.

rackets, tennis, boat-sailing etc. All of which out-door sports are conducive to good health and contentment.” Indeed, “it will be probably be admitted that the Royal Navy offers advantages in the way of sport such as no other profession affords. The roving life of a sailor, embracing every portion of the globe, gives facilities to a sportsman beyond the reach of most people.”⁷⁰

The simplest of these sports were impromptu swimming and boat races, which were both easy to organise at short notice. These informal races between sailors from two warships attracted gamblers from both sides. Rivalries grew between ships on a station, and challenges and counter-challenges ensued. British crews also competed against foreign crews, generally Americans, as a matter of national pride.⁷¹ As well as informal racing, there were also regular organised regattas on stations, which were part of the social calendar.⁷² Each ship would enter various classes of boats, such as launches, whalers, skiffs, pinnaces, and cutters, in a general fleet competition that would last several days.⁷³ These were taken extremely seriously, often with trophies for winners, and detailed results were recorded in ships’ logs.⁷⁴ There was also a level of interaction with local populations, particularly in the settler colonies, with ships’ racing crews competing against local crews. At the Australian Anniversary Day Regatta in Sydney, for example, some events were open to naval crews, and British crews raced each other and “Yankee” crews. There was a large amount of local interest in these races, as shown by the reports in Australian newspapers.⁷⁵ Likewise, at the Victoria Regatta near Esquimalt, locals competed with navy and army crews, which were watched by holiday-makers from the shore or on launches and canoes.⁷⁶ Less frequent were sailing races, although at Malta there were regular races for the Gibraltar Cup.⁷⁷ Outside of the settler colonies, however,

⁷⁰W.R. Kennedy, ‘Sport in the Navy’, *Navy and Army Illustrated*, 20 December 1893, 9.

⁷¹Dunslow and Jones, *The Commission of H.M.S. Eclipse*, 90; Parker, *The Commission of H.M.S. Implacable*, 59; Callow, *The Commission of H.M.S. Royal Arthur*, 94.

⁷²Walton, *Social History of the Royal Navy*, 202.

⁷³Butterworth, *The Commission of H.M.S. Glory*, 83–84.

⁷⁴Breaks, *The Log of H.M.S. Bonaventure*, 72.

⁷⁵Callow, *The Commission of H.M.S. Royal Arthur*, 94, 97.

⁷⁶Newton, *The Commission of H.M.S. Grafton*, 138, 144.

⁷⁷Parker, *The Commission of H.M.S. Implacable*, 54.

it appears that only in Japan, considered westernised by the British, did indigenous participation regularly occur, thus reflecting ingrained ideas about race. Even so, at the annual regatta at Yokohama, Japanese crews were only able to enter the sampan race.⁷⁸

Although sport was primarily between different ships of a fleet, or between the services, there were occasions where sports were played against other teams. These could be against foreign warships also present in harbour, against British nationals resident in a port, or against local populations. Against foreign naval teams, the sports competition was often limited by what sports those nations played. For example, British naval teams would compete regularly against American ships but generally only in boat racing, swimming, and track and field.⁷⁹ Similarly, when the *Bedford* was at the German port of Tsingtau, China, the crews were limited to competing at football.⁸⁰ Competition against local populations was less often limited in the same way as the British influence permeated into sporting pursuits. Thus, we see cricket being played against local populations at Corfu, Cyprus, Port Said, Alexandria, Zanzibar, Valparaiso, and Fiji.

These matches were predominantly against British settlers, but it was certainly not rare for sailors to play against local populations at ports, although these teams tended to be largely made up of Europeans.⁸¹ As well as competing in local regattas, football was played against locals at Port Saïd, Smyrna, Alexandria, Esquimalt, Zanzibar, and Valparaiso.⁸² At the gymkhana at Suda, the crew of the *Implacable* had “a most enjoyable afternoon ... the foreigners greatly delighted at being permitted to

⁷⁸A sampan is a relatively flat bottomed Chinese wooden boat. Charles Gibbs, *The Cruise of H.M.S. Grafton. A Record of Her Commission on the China Station, April 1896–September 1899* (London: Gale & Polden, 1900), 69.

⁷⁹*Ibid.*, 34–35, 59.

⁸⁰Butterworth, *The Log of H.M.S. Bedford*, 102.

⁸¹Whiteley and Davis, *The Commission of H.M.S. Bulwark*, 21; Wheeler, *The Commission of H.M.S. Pandora*, 20, 23, 39–41; Robert L. Moore, *Commission and Travels of H.M.S. Good Hope* (Cape Town: W.A. Richards & Sons, 1903), 49; Newton, *The Commission of H.M.S. Grafton*, 132.

⁸²Diary of Mr Dicks of H.M.S. *Proserpine*, Royal Naval Museum, Manuscript Collection, JC 68 100/79 (2), 51; W. Wheeler, *The Commission of H.M.S. Pandora, Mediterranean Station, 1901–1904* (London: Westminster Press, 1904), 39–41; Journals of Donovan C. Roe, 1911–1912, NMM, JOD/92/2; Newton, *The Commission of H.M.S. Grafton*, 90, 93, 117, 130, 132; Moore, *Commission and Travels of H.M.S. Good Hope*, 49.

take part in the many races and sports.”⁸³ At Esquimalt, crews competed against local loggers at tug-o’-war as well as football, whereas at King George’s Sound, the crew of the *Royal Arthur* were invited to a shooting match against the West Australian Artillery.⁸⁴ Although most sports were taken seriously, there were chances for sailors to participate in less competitive sports. At the Shanghai gymkhana, for instance, sailors took part in an unusual bicycle race. First, they would don fancy dress, then ride to a specified point, drink a pint of beer, then cycle back to the finish.⁸⁵ In a similar vein, at a sports day on an American ship stationed at Hong Kong, sailors partook in a pie race, which was an eating contest performed with hands tied.⁸⁶ Obstacle races were also common.⁸⁷ Sport could also bring tragedy, however, and the log of the *Proserpine* records the death of E. Case, a petty officer killed by a field gun in the naval sports in 1903.⁸⁸ The *Proserpine* lost “one of the ship mates, who died from internal injuries caused on the sports field,” although it does not specify what sport was involved.⁸⁹ Moreover, in a regatta held in Villagarcia in 1911, four bluejackets of the *Glasgow* drowned when their boat capsized in a “terrible storm.”⁹⁰

Sport may have brought together parts of the station community, but it was also a point of division that could reinforce the hierarchies of the ship. Some activities were enjoyed solely by officers, and these included racquets, tennis, and fives.⁹¹ Similarly, on naval sports days, officers and ratings competed separately.⁹² “Unlike cricket and football, which were “ships” games [and brought] the lower deck into competition,” golf was the preserve of higher ranks. It became increasingly popular as the

⁸³Parker, *The Commission of H.M.S. Implacable*, 48.

⁸⁴Newton, *The Commission of H.M.S. Grafton*, 90; Callow, *The Commission of H.M.S. Royal Arthur*, 11.

⁸⁵Dunslow and Jones, *The Commission of H.M.S. Eclipse*, 80.

⁸⁶Gibbs, *The Cruise of H.M.S. Grafton*, 34–35.

⁸⁷*Navy and Army Illustrated*, 4 September 1896.

⁸⁸M.E. Donoghue, *The Log of H.M.S. Crescent* (London: Westminster Press, 1907), 64.

⁸⁹Diary of Mr Dicks of H.M.S. *Proserpine*, Royal Naval Museum, Manuscript Collection, JC 68 100/79 (2), 3.

⁹⁰“Blue Jackets Drowned”, *Border Morning Mail and Riverina Times*, 7 February 1911.

⁹¹Journal kept by Edward Charrington, 1890–1892, Royal Naval Museum, Manuscript Collection, 1999/51/3.

⁹²Walton, *Social History of the Royal Navy*, 203.

period went on, and by 1900 it “had become as much a part of those amusements which a spell in harbour lends itself as cricket or football.”⁹³ Golf courses, often laid out by British officers, especially on the Mediterranean Station, allowed those of higher ranks opportunity to spend time with other men of their station while enjoying the often spectacular scenery of these coastal courses. Again, such pursuits were very competitive, and regular tournaments were held with medals as prizes. In many cases, local men were used as caddies, thus reinforcing hierarchies of rank and race.⁹⁴

On many stations, hunting was a major pastime, especially amongst the officer class. With regular and longer leave on stations, officers had “more time than ‘the old-sea dogs of history’ so [could] therefore hunt.”⁹⁵ Hunting was a “central part of imperial culture” at this time, being a “ritual of prestige and dominance” for an “imperial and largely masculine elite.”⁹⁶ One officer opined that hunting “and duty do not clash ... [but] assist one another and make Naval officers more contented with their noble profession, and more zealous in the performance of their duties.”⁹⁷ As well as being a statement of manliness, it was also a metaphor for British global power as exuded through the hunters’ domination of the natural landscape.⁹⁸ Moreover, it was linked with romantic ideas of adventure and gave officers a chance to immerse themselves in “genuine wilderness.”⁹⁹ Compared with hunting at home, hunting in the environs of the station was relatively inexpensive, thus making it more accessible to officers:

Long expeditions in search of big game [in Britain] are expensive and are usually far beyond the means of sailors, no matter what their rank. On the

⁹³‘On the Golf Links, Esquimalt’, *Navy and Army Illustrated*, 20 June 1900.

⁹⁴‘A Nine-hole Course in Crete’, *Navy and Army Illustrated*, 18 February 1899.

⁹⁵W.R. Kennedy, ‘Sport in the Navy’, *Navy and Army Illustrated*, 20 December 1893, 9.

⁹⁶John M. MacKenzie, *The Empire of Nature: Hunting, Conservation and British Imperialism* (Manchester: Manchester University Press, 1988), 22, 26, 37, 46, 50.

⁹⁷W.R. Kennedy, ‘Sport in the Navy’, *Navy and Army Illustrated*, 20 December 1893, 9.

⁹⁸Angela Thompsell, *Hunting Africa: British Sport, African Knowledge and the Nature of Empire* (Basingstoke: Palgrave Macmillan, 2015), 3–5.

⁹⁹MacKenzie, *The Empire of Nature*, 22, 26, 37, 46, 50. A good summary of the current historiography can be found in Thompsell, *Hunting Africa*, 3–5, 11.

other hand, we sailors have some opportunities of visiting out-of-the-way places beyond the reach of ordinary sportsmen or tourists, where we can enjoy both shooting and fishing without the expense attached to either form of sport in more accessible and civilised countries.¹⁰⁰

A huge diversity of game was hunted including grouse, duck, geese, hares, rabbits, beavers, curlew, martins, and elephants. At Trincomalee, officers of the *Perseus* hunted deer, jackal, wild boars, and cheetahs and encountered lizards, centipedes, and snakes.¹⁰¹ In Port Mahon, “sport [was] fairly good,” and officers hunted partridges, rabbits, woodcock, and snipe.¹⁰² Here, again, hierarchies of rank were reinforced. Bluejackets and marines often fulfilled the role of stalkers and gillies by carrying the officer’s water bottle and haversack. However, there is also evidence of officers sharing their equipment, which allowed them to “see the lads enjoy themselves ... with gun and rod.”¹⁰³ Although rarely mentioned in accounts, many of these hunts relied on indigenous guides with knowledge of local areas to track wildlife for the officers. Thus, hunting both reinforced notions of class and race as well as highlighted the more complex realities of these relationships in terms of the elite being dependent on the knowledge and labour of ratings and indigenous peoples.¹⁰⁴ Ratings generally preferred seine fishing, though, which was usually led by a Warrant Officer, and foreign stations allowed them to fish for huge and exotic specimens. One crew recorded that it had caught a skate measuring 23 by 19 feet.¹⁰⁵ These outdoor activities were enjoyed across the world; at Port Hamilton the crew of the *Glory* enjoyed fishing,

¹⁰⁰Vice—Admiral Sir William R. Kennedy, K.C.B. ‘Off duty with rod and gun—Sport in the Navy’, *Navy and Army Illustrated*, 4 June 1898.

¹⁰¹A. Reeve, *The Commission of H.M.S. Perseus. East Indies, Including Persian Gulf and Somaliland. 1901–1904* (London: Westminster Press, 1904), 39.

¹⁰²Journal kept by Edward Charrington, 1890–1892, Royal Naval Museum, Manuscript Collection, 1999/51/3.

¹⁰³W.R. Kennedy, ‘Sport in the Navy’, *Navy and Army Illustrated*, 20 December 1893, 9; *Navy and Army Illustrated*, 16 July 1898, 388.

¹⁰⁴Thompson, *Hunting Africa*, 162.

¹⁰⁵W.R. Kennedy, ‘Sport in the Navy’, *Navy and Army Illustrated*, 20 December 1893, 9; *Navy and Army Illustrated*, 16 July 1898, 388.



Fig. 8.2 British naval officers playing golf in Crete. Note the use of local caddies. *Navy and Army Illustrated*, 18 February 1899

oystering, camping and hunting for game, and the *Grafton's* men fished at Esquimalt¹⁰⁶ (Fig. 8.2).

Many of the activities enjoyed by British seamen abroad required specialised facilities. These often belonged to local sports teams, but for the servicemen stationed at larger stations, such as Hong Kong and Malta, extensive sporting facilities were provided for their use. These sports fields were sites of familiarity for British sailors, a piece of home transported across the sea. A cricket pitch, for example, “was instantly and essentially British, wherever in the world it was located.”¹⁰⁷ Sport (and particularly that seen as “British”) and its associated facilities was thus key to making the unfamiliar familiar. When arriving at the Royal

¹⁰⁶Butterworth, *The Commission of H.M.S. Glory*, 43–44; Newton, *The Commission of H.M.S. Grafton*, 35.

¹⁰⁷Walton, *Social History of the Royal Navy*, 199.

Navy camp in the mountains at Diyatalawa, Ceylon, an exotic mountain retreat, for example, one sailor stated "Of course we commenced our English games," primarily football.¹⁰⁸

The facilities at Hong Kong were particularly impressive. Happy Valley, as it was known, was immensely popular. Converted into a race-course for the amusement of British residents, the log of the *Sutlej* describes it as "one of the finest sports fields I have ever seen" with its stands, running track, and facilities for football, rugby, golf, hockey, and cricket.¹⁰⁹ Such facilities allowed Hong Kong to host regular sporting fixtures, including the Hong Kong Shield for football, which included local clubs, regiments of the garrison, and teams from British ships. They were also well supported with the log of the *Goliath* recalling that "as many men as can be spared from the fleet" were allowed to watch the semi-final of the Hong Kong Shield.¹¹⁰ At Malta, sports were played at the Corradino ground. Although the calendar included regular Army versus Navy football matches, the annual naval athletics sports were the highlight of the year.¹¹¹ The two days of competition attracted thousands of viewers, thus leaving those who could not fit into the ground to spectate from tree tops and roofs. Events included the gun-crew competition, sack race, obstacle race, flat racing, and tug-o'-war with the ship's officers being the "chief encouragers of our naval sports."¹¹²

Such was the importance of sport that at other, smaller stations, where sporting facilities did not exist, naval men would spend leave creating spaces to play. When the crew of the *Vulcan* arrived in the Platea, they found "nothing but dense scrub," but quickly set about creating a sports ground. By 1899, there was a tennis court, two football pitches, and a

¹⁰⁸Diary of Mr Dicks of H.M.S. *Proserpine*, Royal Naval Museum, Manuscript Collection, JC 68 100/79 (2), 46.

¹⁰⁹G. Crowe, *From Portsmouth to Peking via Ladysmith with a Naval Brigade* (Hong Kong: Hong Kong Daily Press, 1901), 93–94; Anning, Bentley, and Yexley, *The Log of H.M.S. Argonaut*, 15, 22; G.H. Gunns, *The Log of H.M.S. Sutlej, Pacific and China Stations, 1904–1906* (London: Westminster Press, 1906), 37.

¹¹⁰Brodie, Ray, and Yexley, *The Log of H.M.S. Goliath*, 119; Butterworth, *The Commission of H.M.S. Glory*, 50–51; Gibbs, *The Cruise of H.M.S. Grafton*, 104; Masker, 'The China Station in Other Days', 522–533.

¹¹¹Wheeler, *The Commission of H.M.S. Pandora*, 104.

¹¹²Whiteley and Davis, *The Commission of H.M.S. Bulwark*, 151–153; Tyler, *The Commission of H.M.S. Lancaster*, 42.

cycling track made from ash. The Empress of India Football Cup, which was played at the recreation ground, was soon one of the most coveted prizes for the Mediterranean fleet.¹¹³ Similarly, at Muscat the crew of the *Proserpine* made a football ground, which allowed them to have a match every night for exercise.

Even outside these centres, with their organised leagues and competitions, sport was taken very seriously. Indeed, such was the importance of a cricket match against the Gibraltar garrison for the team of the *Pandora* that they almost drowned in heavy swells getting from the ship to land.¹¹⁴ Crews would also prepare on board before arriving in port for the occasion to ensure the best performance possible.¹¹⁵ Furthermore, all of the scores for cricket, football, rugby, water polo, hockey, and shooting, whatever the venue or opponent, were recorded in each ship's logs, thus illustrating the depth and importance of sport at naval stations. Some teams even achieved fame in the press. In 1903, "the *Ringarooma's* Crack Team" of footballers made the local Australian newspaper. Furthermore, the ceremony to hand over the trophies, which came from beating an all-Queensland team, was very popular with local people, who came to toast the team. Wine followed, and the newspaper reported a "great blow-out."¹¹⁶

Sport clearly played a significant role in station life. A key part of off-duty recreation, it not only fostered abilities that many believed were essential to the sailor, it also was key to the morale of crews. Moreover, it brought together British sailors, those of other nations, and local populations in leisurely past-times. Competition may have led to overt pride in a team's ship—or, in international fixtures, one's nation—but it did so within a fraternal environment and thus can be seen as a key part of building community at these stations. Yet there were limitations to participation in both terms of numbers and rank. By definition, only a fraction of a ship's company could be in a sports team, yet high levels of support suggest this was something that the whole crew felt invested in

¹¹³ *Navy and Army Illustrated*, 18 February 1899.

¹¹⁴ Wheeler, *The Commission of H.M.S. Pandora*, 56–57.

¹¹⁵ Diary of A C East, H.M.S. *Natal* on its Cruise to India as escort to Royal Visit, 30 November 1911, National Museum of the Royal Navy, Manuscript Collection, 95/90 (28).

¹¹⁶ 'Jack-Tar Footballers', *Australian Star*, 12 September 1903.

and encouraged to do by their officers. Moreover, the presence of these crowds, often mixing with local populations, augmented the fraternal ties made by the sport itself. Although officers actively promoted sports participation amongst the bluejackets, their own sporting endeavours tended to be separate whether they were competing independently, as with athletic competitions, or engaging in entirely different sports such as golf, fives, and game hunting. In doing so, they reinforced hierarchies of rank amongst crews, but they also played an important role in forming relationships between the navy and other dignitaries, and as such helped to foster a separate, but equally as important, community amongst men of that rank.

DRINKING

Editorials in newspapers often claimed the obsolescence of the drunken-sailor stereotype. An article from 1910 suggested that “a good deal has been said lately to show the great change for the better that has gradually taken place of later years in the character and habits of our blue-jackets.” The sober twentieth century sailor, it argued, no longer spends “the night in low dens, and finishing with empty pockets and an aching, though not wiser, head.”¹¹⁷ MPs also suggested as much. W.H. Smith, a former First Lord of the Admiralty, intimated that he had “no doubt [that] the conduct of the men had much improved of late years. A drunken sailor, once so common a spectacle, was now rarely seen.”¹¹⁸

Despite these domestic protestations, there is much evidence of sailors partaking in alcohol when on leave. Indeed, “officers who had the means of knowing believed that [only] a sixth of our crews were teetotalers.”¹¹⁹ Even those who abstained would often share their portion of alcohol with the rest of their messmates.¹²⁰ Of course, drinking did not necessarily mean doing so to excess, and alcohol was officially sanctioned through the daily rum ration—although this was controversial

¹¹⁷‘The Modern Blue Jacket: His Well Filled Stocking’, *Sydney Sunday Times*, 18 September 1910.

¹¹⁸Navy (Sobriety)—Resolution, House of Commons Debate, 13 August 1881, *Hansard*, vol. 264 cols 1821–351821.

¹¹⁹Ibid.

¹²⁰Lionel Yexley, *Grog Time Yarns* (London: Westminster Press, 1904), ii.

with temperance campaigners—and was, moreover, used as an incentive by some captains to achieve higher coaling rates.¹²¹ It further seems unlikely that drinking was not involved in the many gatherings aboard in harbour, especially those that went on all night.¹²² Indeed, alcohol played an important role in comradeship and morale for sailors. It was for this reason that the campaigner for lower-deck conditions, Lionel Yexley, defended the reputation of the bluejacket who passed his lunch hour “in a spirit of hearty good-fellowship share their liquid ration, with merry jest and humorous yarn, punctuated with lower-deck flavouring.” Whilst Yexley conceded that “it may be very wrong to drink three-water grog and use strong language ... England wants men in her navy who will fight in her battles, and can forgive them if their morals are not built on boarding-school lines.”¹²³

Alcohol was also a key part of the social element of station life, and—on occasion—officers would even give alcohol to sailors ashore such as in Colombo where they bought ratings a cask of beer. Drinking was also often invaluable in the integration of sailors into a wider community. Indeed, British service personnel patronised certain public houses, hotels, and clubs—such as the Central Hotel in Hong Kong, the Prince of Wales Hotel in Colombo, or the George and Dragon at Corfu—thus allowing them to find the company of fellow sailors, cheap food, and beer and spend time singing. These spaces, and the activities that took place in them, were again similar to those “sailortowns” in home ports.¹²⁴ Again, who mixed in these meeting places would be a question of rank, with officers and bluejackets largely frequenting different establishments.¹²⁵ Usually bluejackets drank with other British sailors, but they also joined their “western” counterparts in taking leave at these stations whether they were non-naval Britons, the crews of European,

¹²¹Christopher McKee, *Sober Men and True: Sailor Lives in the Royal Navy, 1900–1945* (Cambridge, MA: Harvard University Press, 2002), 120–122.

¹²²Diary of Mr Dicks of H.M.S. *Proserpine*, Royal Naval Museum, Manuscript Collection, JC 68 100/79 (2), 80.

¹²³Lionel Yexley, *Grog Time Yarns* (London: Westminster Press, 1904), ii.

¹²⁴Gunns, *The Log of H.M.S. Sutlej*, 23, 34; Brown, *The Log of H.M.S. Repulse*, 27. For home ports, see Moon, “Sailorhoods,” 31–159.

¹²⁵Walton, *Social History of the Royal Navy*, 162.

American, or Japanese naval vessels, or local Europeanised populations, especially on stations in the settler colonies.¹²⁶

Even if it can be shown that drinking was fairly ubiquitous amongst sailors ashore, it is noticeable how few mentions of excessive drinking there are in sailors' accounts of stations, even those kept as private diaries. Yet, despite the best efforts of reformers, moral crusaders, and temperance campaigners, the behaviour of at least some sailors ashore remained predictable.¹²⁷ The temperance movement may have claimed to have changed the average sailor, but the popular image of "irresponsible, drunken, gallivanting tars who became social dangers ashore," was a reality at foreign stations.¹²⁸ Despite the insistence of the outdated nature of this image, alcohol was a constant presence and was often used to excess much as it was at home.¹²⁹ The towns adjacent to coaling stations offer evidence of this more excessive consumption. Valetta in Malta, for example, was well known as a favourite of bluejackets where "his requirements are catered for on a somewhat lavish scale," and a sailor's pain from coaling could be drowned in drink.¹³⁰ Local traders, competing for the business of sailors, gave their public houses anglicised or naval names—such as *Flagship*, *British Flag*, *British Crown*—or names after naval ships and provided British beer, cheap lodging, and the

¹²⁶That British sailors interacted with Japanese sailors in much the same way as Europeans and Americans was a result of the westernisation of Japan by the late Nineteenth century. Furthermore, there was a strong connection with Britain, which became an official ally in 1902 and manufactured many of Japan's ships, trained its cadets, and provided a model for the Japanese navy. However, the British view of the Japanese was complex: They were rarely seen as entirely equal. See Rotem Kowner, "Lighter Than Yellow, But Not Enough": Western Discourse on the Japanese "Race," 1854–1904', *Historical Journal*, 43, 1, 103–131; Olive Checkland, *Britain's Encounter with Meiji Japan, 1868–1912* (Basingstoke: Macmillan, 1989), especially 148–158.

¹²⁷See, amongst others, Watts, *The Commission of H.M.S. Retribution*, 17–19; Dougherty, *The East Station*, 22. Walton also notes not much was written about alcohol, but those accounts that do exist suggest heavy drinking was normal. Walton, *Social History of the Royal Navy*, 166.

¹²⁸Mary A. Conley, "You Don't Make a Torpedo Gunner Out of a Drunkard": Agnes Weston, Temperance, and the British Navy', *The Northern Mariner*, IX, 1, (January 1999), 1.

¹²⁹Lavery suggests that despite Aggie Weston's campaigns, sailors still fought and got drunk in Portsmouth and Plymouth—often over women, Lavery, *Able Seamen*, 112.

¹³⁰Anning, Bentley, and Yexley, *The Log of H.M.S. Argonaut*, 8.

opportunity to drink with army men.¹³¹ Although Malta was particularly well known for its hospitality, most coaling stations offered ample opportunity for refreshment. Many of those who visited Simon's Town would travel to Cape Town by stagecoach or by railway after 1890, ostensibly to drink.¹³² Similarly, in Piraeus, "wine-shops abound wherein is vended a heady concoction in which sailors delight."¹³³ When sailors did over-consume and were sick in their cabins, they could expect to be punished on board.¹³⁴ If caught by local authorities, they could expect double the punishment. Drunken sailors caught in Coquimbo, Chile, for example, were made to sweep local streets at sword-point in the morning and were then fined and punished when they returned aboard. Another punishment recorded was to clean and groom police horses.¹³⁵ Some sailors were repeated offenders: one Jack Tar was found "very much drunk" three times whilst awaiting trial for "drunkenness" in Dunedin.¹³⁶

Such occurrences led temperance campaigners to suggest that "many sailors in the navy became a disgrace to old England's flag by their pursuit of a life of dissipation." There was a call to stop "liquor traffic in the colonies," which referred to those businesses, such as public houses, that deliberately targeted sailors and caused young sailors to be intemperate.¹³⁷ The temperance campaigner Sir George Trevelyan further argued that "there was no doubt whatever that it was drink—the direct and indirect effects of drink—to which most of the misconduct that existed in the Navy was due."¹³⁸

¹³¹J.R.M.A. Brown, *The Log of H.M.S. Repulse, 1902–1904, Mediterranean Station* (London: Westminster Press, 1904), 16; Joseph Bonnici and Michael Cassar, *A Century of the Royal Navy at Malta* (Malta: BDL, 1999), 26–32.

¹³²Raphael Semmes, *The Confederate Raider Alabama* (London: Richard Bentley, 1865), 286; C. Knox and C. Coetzee, *Victorian Life at the Cape, 1870–1900* (Cape Town: Fernwood Press, 1992), 32.

¹³³*Daily Telegraph*, 24 June 1879.

¹³⁴Journals of Donovan C. Roe, 1911–1912, NMM, JOD/92/2.

¹³⁵Newton, *The Commission of H.M.S. Grafton*, 12–13; Stan Huggill, *Sailortown* (London: Routledge and Kegan Paul, 1967), 250.

¹³⁶'Very Much Drunk', *Thames Advertiser*, 21 June 1893.

¹³⁷'Bluejacket teetotallers in Ballarat' *Ballarat Star*, 23 November 1883.

¹³⁸Navy (Sobriety)—Resolution, House of Commons Debate, 13 August 1881, *Hansard*, vol. 264 cols 1821–351821. Agnes Weston frequently made the same point. Conley, "You Don't Make a Torpedo Gunner Out of a Drunkard," 6, 9.

Whilst castigation of this behaviour was common in Britain, reactions from officers abroad were more complex. Although at some stations, especially those with little else in way of entertainment, alcohol consumption was seen as a problem, concerns were rarely aired.¹³⁹ Furthermore, despite heavy drinking, courts martial were far more common for offences aboard than ashore, and this reflects the attitudes of many officers toward sailors.¹⁴⁰ Despite being diametrically opposed reactions to drunkenness amongst bluejackets, both the consternation of domestic campaigners and the indifference of officers on stations were rooted in similar attitudes toward sailors. Despite stricter selection processes and the increased professionalisation of the service, bluejackets were still often seen as childlike, unable to control their wants and mores. In this way, little had changed since the 1820s when the sailor was dismissed as “a child” and “as insensible as [a] brute.”¹⁴¹ This led those at home to argue for temperance because they did not trust sailors to drink in moderation, something that was frequently criticised by the sailors themselves as deeply patronising.¹⁴² As in Britain, the writings of those who ran Sailors’ Homes, promoting temperance, presented the bluejackets as naïve, especially around alcohol and women. Without the authority figures they had afloat, it was reasoned, the tar stood little chance against the evils of the demon drink.¹⁴³ For those “on the spot,” the opposite conclusion was drawn, but it was drawn for the same reason. A sailor’s inability to control his desire for alcohol meant that any measures that restricted access to alcohol would be catastrophic for morale—and thus such habits had to be entertained in order to avoid mutiny.¹⁴⁴ Yet this must have undermined attempts to reconstitute the sailors’ image abroad

¹³⁹ Semmes, *The Confederate Raider Alabama*, 320–335.

¹⁴⁰ Lavery, *Able Seamen*, 168. Walton suggests that extensive alcohol abuse was an issue, although the supporting footnote suggests this is not clear cut with a peak of only 25 cases of courts martial in 1881. Walton, *Social History of the Royal Navy*, 310.

¹⁴¹ ‘A Commander in the Royal Navy, 1827’ by Sir Joseph Sidney Yorke, cited in Isaac Land, ‘Customs of the Sea: Flogging, Empire, and the “True British Seaman” 1770 to 1870’, *Interventions: International Journal of Postcolonial Studies*, 3:2 (2001), 174.

¹⁴² ‘Bluejacket teetotallers in Ballarat’ *Ballarat Star*, 23 November 1883; Conley, “You Don’t Make a Torpedo Gunner Out of a Drunkard,” 2, 14.

¹⁴³ *Hobart Mercury*, 25 March 1881; Conley, “You Don’t Make a Torpedo Gunner Out of a Drunkard,” 3.

¹⁴⁴ See Erica Wald, *Vice in the Barracks: Medicine, the Military and the Marking of Colonial India, 1780–1868* (Basingstoke: Palgrave Macmillan, 2014); Lavery, *Able Seamen*, 169.

and also would have destabilised the “civilising mission” and Britain’s moral authority in colonies.¹⁴⁵

Although temperance campaigners argued that alcohol affected a ship’s fighting capacity, it represented a generally low health risk, and thus officers were able to tolerate most reasonable drunkenness without a loss to the efficiency of a ship’s company.¹⁴⁶ Instead, in allowing blue-jackets the freedom to drink, within reason, they were able to maintain crew morale and avoid belittling the men. The use of alcohol not only provided the seamen with an outlet for the frustrations of life at sea, it also lubricated the social interactions with other groups met at stations. Although some moral reformers may have baulked at the frequent use of alcohol by naval personnel abroad, it was a crucial part of creating a maritime community that extended beyond the single ship and indeed beyond solely Britons. Perhaps for this reason, despite much evidence of heavy drinking, the Admiralty did not appear to have had much concern about the practice.¹⁴⁷

VIOLENCE

Perhaps an inevitable consequence of this tolerance of drunkenness amongst sailors was that violence amongst bluejackets on leave at stations was commonplace. Whilst fraternal relationships could often be found with local populations and foreign sailors—as has been shown—where alcohol was consumed, fights often followed. As much as excessive alcohol consumption is omitted from those accounts reaching a domestic audience, few accounts of violence exist in those published accounts of commissions reaching a popular audience. However, in the colonial press, a less harmonious image appears. These accounts do not necessarily contradict the idea that a fraternal community existed amongst visiting sailors at coaling stations, but they offered a more nuanced understanding in which relationships were altered by race, nationality,

¹⁴⁵This is especially the case because indigenous populations were supposedly childlike and unable to control their drink.

¹⁴⁶In 1903, for example, in the whole of the navy afloat, there were only 88 cases of “Poisoning (by alcohol)” when drinking resulted in a visit to the sick bay, a rate of 0.85 personnel in 1000. Just one of these cases was invalidated, and two men died. British Parliamentary Papers, 1904 (320) *Navy (Health) for the Year 1903*.

¹⁴⁷Brown, *The Log of H.M.S. Repulse*, 16.

patriotism, and alcohol. Moreover, they highlighted the high cultural value a sailor ascribed to his public-facing image. Indeed, as Moon has argued, “rather than simply being part of ‘rowdy’ behaviour ashore, [violence] had two central street-wise functions; retribution for perceived wrongs and as a display of nerve to enhance status, both of which hinged around the ability to ‘look after oneself’ on the street.”¹⁴⁸

Particularly noticeable amongst accounts is that—as may be expected during the “great game”—relations between British and Russian sailors were especially poor. Not only are stories of fraternal relations with Russians largely absent—noticeably in the “log series,” that aimed to portray positive stories of ships’ commissions—but hostility toward blue-jackets of the Imperial Russian Navy appears throughout this period. In 1879, the *Telegraph* suggested that “whatever may be the attitude the Government of England now assumes toward Russia, it is certain that out sailors still regard the Muscovite as a natural foe.” Even if official respect remained, with flag salutes and officers fraternising, should a bluejacket meet his Russian rival in port “a *casus belli* is not unlikely to ensue.”¹⁴⁹ It cited a fight in Piraeus started by Russians—involving tables and chairs—noting that “it is satisfactory to know that victory speedily inclined to the side of the Union Jack.” After the incident, the Russian commander stopped his men from going ashore when the British were in port. The actions of the British commander are perhaps telling, though. No punishment was given to those involved; instead, the newspaper suggested that he agreed that “enough had been done for the honour of the flag to which his gallant fellows belong.”¹⁵⁰ Perhaps with this antagonism in mind, at Kiel in 1895 the German navy refused to let British and Russian sailors land together. When the British tars did come ashore, they were accompanied by Germans to keep them out of trouble—and reflecting the fact that this was not just a blanket xenophobia—“got along together splendidly.” The animosity was confirmed when the British ships left harbour where they were cheered by Italian, German, Austrian and American sailors but met by silence by the Russians.¹⁵¹

¹⁴⁸ Moon, “Sailorhoods,” 198.

¹⁴⁹ Walton, *Social History of the Royal Navy*, 314.

¹⁵⁰ *Daily Telegraph*, 24 June 1879.

¹⁵¹ ‘Jack Ashore in the Pacific Islands’, *Evening News*, 14 September 1895.

Tension between Russians and Britons could also escalate to involve other nationalities on a spectacular scale. In 1898, a fight in Hong Kong began with trouble between British and Russian sailors, but it came to involve some 550 bluejackets. Two sides formed, one of 400 Russian, German, and French sailors, who blocked the way of approximately 150 British and American sailors. Yet, united in a charge, the latter managed to break the line and surround the bigger force, crying “Hail Columbia” and “God Save the Queen,” after which they “knocked seven bells out of them.” With “the police ... powerless to interfere ... the officers hurried to shore in launches, but the hostilities did not cease till the allied forces [Russia, Germany, and France] cried for quarter.”¹⁵² The tone of the Australian report, and the lack of action from officers, show that rather than seeing the event as a disgrace to the nationalities involved, it was seen as a patriotic victory as well as an important reminder of the strength of British sailors and the global power of the Royal Navy.

A patriotic tone can also be detected in violence against other nationalities. An account of a pitched “lengthy and fierce fight” after the stabbing of a British sailor by his French equivalent—which ended with several Frenchmen being thrown in Hong Kong harbour—was reported under the headline “Jack Tar Triumphant.” It noted that “the “hardy British tar” has shown once more how his name has become, in course of time, a terror throughout the inhabited world.”¹⁵³ Even when an incident was clearly the fault of the British sailor, he was often portrayed as being a loyal Briton. An article entitled “A Patriotic Blue-Jacket” tells of a sailor who “engaged the ... combined forces of one Frenchman, two Turks and a nondescript gathering of all nation’s representatives” merely because the Frenchman “sneered at” him as he sang “Death of Nelson” in a hotel. The tar “activate[d] hostilities” with a “well aimed lemonade bottle” to the head. In court he played the patriot: “I did my duty. There they was, a Frenchy and Turkey, and what all, and I could not help sailing in.” This action appears to have had the support of both his superiors and the judge with a petty officer giving a good character witness and the sailor being “let ... off with a fine of 5s.”¹⁵⁴

¹⁵² ‘The “Tar” Shindy at Hongkong’, *Newcastle Morning Herald and Miners’ Advocate*, 4 June 1898.

¹⁵³ ‘Jack Tar Triumphant’, *Melbourne Leader*, 6 March 1897.

¹⁵⁴ ‘A Patriotic Blue-Jacket’, *Western Champion*, 17 November 1896.

One newspaper perhaps best described the cause of this attitude: “the English sailor of the present day is still largely imbued with that instinctive feeling of superiority over and contempt for all foreign seamen that has been characteristic of him since the days of Drake and Hawkins.” He did, however, admit “that the German is a ‘good sort and a smart sailor’ and [Jack Tar] looks upon him almost as an equal. But for every other nationality he makes no secret of his feelings.”¹⁵⁵ Indeed, in “civilised ports,” German and English bluejackets tended to spread out throughout attractions, so they rarely met, but when they did, they generally fraternised. In general, relations seem to have also been very cordial with the US Navy with the exception of those at stations on Pacific islands and in western South America where “the meeting of English bluejackets with those of any other nationality is pretty sure to result in individual fights and occasionally a general mêlée.”¹⁵⁶ Any landing of the two meant that “there are bound to be some terrific fights”—and white residents at Apia, Samoa, worried about British and Americans being ashore together. The clear difference between this and the comradery at other ports, according to the newspaper, was mainly due to the make-up of American crews in these places, which was disparaged as “Danes, Swedes, Norwegian, Mexicans, ‘niggers’ and all sorts of hybrid-breds.”¹⁵⁷ Nationality was therefore significant. Americans, often seen as “Greater Britons,” and Germans, seen as part of a “Saxon race,” largely escaped the brutality of British bluejackets, instead being seen by them as “almost as an equal.”

Nationality mattered most because it was juxtaposed with what Tomas Nilsson has described as a “working-class masculinity that comprised an easy use of violence.” Whilst much of this was alcohol driven, this merely exacerbated what he calls “the honour culture” found within men of the working class, which meant that “if certain values, like personal respect, dignity and honour, were seen to be challenged, a response had to follow.”¹⁵⁸ Where such affronts could be interpreted as a challenge to the

¹⁵⁵ ‘Jack Ashore in the Pacific Islands’, *Evening News*, 14 September 1895.

¹⁵⁶ Ibid.

¹⁵⁷ Ibid.

¹⁵⁸ T. Nilsson, ‘Hey Sailor, Looking for Trouble?’ in Brad Beaven, Karl Bell, and Robert James (eds), *Port Towns and Urban Cultures: International Histories of the Waterfront, c. 1700–2000* (Basingstoke: Palgrave Macmillan, 2016), 69–89.

Royal Navy, as well as Great Britain and its Empire, it is unsurprising that fights were framed as a matter of patriotic honour.

Relationships with western populations at stations were similarly not always cordial.¹⁵⁹ A tar's proclivity for alcohol, in particular, could cause tensions, especially with law enforcement. For ordinary citizens of these places, the influx of hundreds of sailors, despite the business opportunities presented, was not always welcome, especially when it involved drunkenness and violence. An Australian newspaper reported the a case of William Turner, of the *Challenger* in 1907, who pleaded guilty to drunkenness although he claimed that he had no knowledge of the other accusations. He was, however, found guilty of resisting the police after it transpired that he and some of his shipmates had thrown stones at the constables "so that there was something like a riot." The magistrate's sentencing suggested why such misdemeanours were so damaging, pronouncing that "he was sorry to see a man in the uniform of the Navy before the Court, bringing discredit upon his comrades and impairing their name for good conduct in a town."¹⁶⁰ Two years later "a sharp engagement ... between representatives of the British Navy and police force" was reported. "The battle" lasted an hour, as a result of the constables rounding up deserters—who blamed "tyrannical orders of a lieutenant." The *mêlée* saw a brick thrown at the police, and once arrested, one "boastfully proclaimed" to have been part of Portsmouth riots suggesting that repeat offenders were a particular problem.¹⁶¹

A "shocking" case was reported in the press when not only policemen were affected when some "men of the King's Navy ... [ran] riot at Manly," but "among those that suffered from their hands ... was one of the fairer sex." A day of celebration was ruined when "there burst on the horizon what appeared to be a mob of blue-jackets—not neat and taut and trim, and amenable to a proper discipline, but evidently under the influence of drink." Ignoring the police who "advised them in soothing tones" to return to Sydney, they trampled a woman and

¹⁵⁹Walton notes that British sailors also fought Maltese residents. Walton, *Social History of the Royal Navy*, 166.

¹⁶⁰'Jack Tar in Trouble', *Evening Star*, 5 June 1905.

¹⁶¹'Blue, Blue, Blue!', *Sydney Morning Herald*, 6 December 1907.

then punched an official in the jaw. Confronted by an inspector, a sailor punched him, then kicked him in the groin. Eventually the ringleaders were taken to “Manly lock-up,” and the remaining sailors, who escaped by boat, found policemen waiting for them at the harbour having been alerted by telegraph.¹⁶² Causing unnecessary tension with local populations, unlike violence against foreign sailors, then, was particularly unwelcome and was deliberately portrayed as an act that damaged the reputation of the navy.

Whilst it is understandable that harsh tones were used in the cases of flagrant challenges to law and order, the press could also take the side of sailors against the police if they were causing tensions with visiting naval men. In a case in Sydney, despite the tar being convicted of assaulting a police officer, the newspaper took the side of the bluejacket, suggesting that “it appeared from the evidence adduced that the gallant constable considered it his ‘duty’ to molest, while in plain clothes, the young tar, under the pretence that he ... was looking for leave-breakers.” It concluded that “the treatment of this ‘common’ sailor by a Sydney policeman ... is a gross insult to the Service at large.”¹⁶³ Seven years later, the press reported that sailors were habitually being followed and “pounced upon” by water police in Sydney. These cases drew particular ire because these colonies were dependent on the navy for protection against hostile forces, and sour relations did nothing to enhance their appeals for more protection. Indeed, the policeman in question was derided as a menace to those “paid by Australians to guard their shores from hostile fleets.”¹⁶⁴ It is perhaps notable that the policeman is repeatedly referred to as foreign. At times, violence from British tars was applauded, especially when they maintained order by joining forces with the police, especially in imperial ports, against foreign sailors. For example, in 1897, British bluejackets “went to assistance of her Majesty’s uniform”—i.e., the Hong Kong police—who were fighting drunken German sailors.

¹⁶² ‘Men of the King’s Navy. Demon Drink runs riot at Manly’, *Australian Star*, 27 December 1905. See also, for example, ‘Jack Tar and Policeman’, *Evening News*, 21 April 1908.

¹⁶³ ‘Jack Ashore’, *Sydney Truth*, 18 April 1897.

¹⁶⁴ ‘Jack in Jeopardy’, *Sydney Truth*, 1 May 1904.

Adding their weight to the brawl, the Germans ended up in harbour, and the sailors were celebrated in the press.¹⁶⁵

Generally, assaults on ordinary residents were castigated in the press. Although the bluejacket pleaded it was a result of his “highly strung nerves,” an assault on a passer-by earned him a heavy fine.¹⁶⁶ Complaints also came against sailors who unnecessarily involved themselves in disputes, especially because they were well renowned for their strength and capabilities in a fight.¹⁶⁷ These appear to have been fairly rare incidents, however, and sailors seem to have been more violent toward foreign sailors or to the police trying to control them. The violence also must be put into the context of other nations’ sailors and, considering relative numbers, the British sailors do not stand out as anomalies. Indeed, sailors of the U.S. Navy found themselves involved in several high-profile incidents as they expanded their presence overseas. Bluejackets of the famous Great White Fleet in 1909, for example, had restricted shore leave because “the riots in Rio and Auckland were not forgotten, nor was the Melbourne orgy.”¹⁶⁸ Similarly, “an ugly incident” occurred in 1910 involving “two hundred riotous American blue jackets ... [who] fought their way into the Café de Paris in Cherbourg at midnight and insisted on being served with drinks.” Confronted by the police, they retaliated by “disarming the commanding officer ... windows were smashed, and revolvers fired.”¹⁶⁹

Violence was therefore both a common and largely expected part of station life. Fighting other sailors was largely seen in patriotic terms, and unless it brought criminal charges, such men seem to have escaped serious punishment. Very much in the same way that officers would often ignore men fighting on board for status, violence against rival sailors abroad was largely tolerated and often seen in patriotic terms.¹⁷⁰ Moreover, as with alcohol, a blind eye shown to violence reinforced a patronising view of sailors, who were considered, as a result of their

¹⁶⁵ ‘Jack Tar Triumphant’, *Melbourne Leader*, 6 March 1897.

¹⁶⁶ ‘Highly Strung Nerves’, *Sydney Morning Herald*, 19 January 1909.

¹⁶⁷ ‘Liverpool Street Riot’, *Hobart Clipper*, 10 February 1894.

¹⁶⁸ Robert A. Hart, *The Great White Fleet; Its Voyage around the World, 1907–1909* (Boston: Little, 1965), 220.

¹⁶⁹ ‘Jack Tars on The Loose’, *West Coast Times*, 22 November 1910.

¹⁷⁰ Lavery, *Able Seamen*, 109.

social status, to have a natural proclivity for violence that was best tempered against foreigners. The disruption of law and order, and particularly of civil life, was mostly viewed as dangerous to the harmony of colonial relations, however, and was largely castigated. Equally, however, unfair targeting of sailors for the same reason was similarly criticised, and the status of the bluejacket as a defender of the empire was often invoked.

CONCLUSIONS

Longer and more frequent stays at stations, as a result of the adoption of steam engines, meant that station communities emerged in the late nineteenth century. The growth of both the British and other navies, especially from the 1890s onward, meant that international and transient actors gathered in increasingly large numbers at coaling stations. As Walton suggests, the abundance of British sailors within these station communities did in many ways create a Royal “naval world,” but although these did undoubtedly exist, they were part of wider station communities.¹⁷¹ Indeed, many of the ways that Royal Navy sailors fraternised with each other—including through sport, drinking, and celebrations—are also seen with other groups present at stations including expatriates, soldiers, resident populations, and sailors of other navies. Moreover, the transient nature of the actors involved meant that they would often meet again at different stations, thus reinforcing old friendships that had been made on previous visits or at other stations. As such, these connections linked coaling stations across the world.

In fact, rather than nationality, class and rank mattered most in these encounters. Indeed, much of the behaviour which would have offended domestic sensibilities were they allowed purely because of a sailor’s class. Because sailors were regarded as a child-like brutes, alcohol and violence, within reason, was allowed by officers on the basis that to deny the bluejacket his desires was at best to destroy morale and at worst cause violent insurrection.

Nationalism was not entirely absent, however, and whilst officers appear to have had at least cordial relationships with their foreign equivalents, the ratings’ relationships with sailors of other nationalities

¹⁷¹ Walton, *Social History of the Royal Navy*, 190.

at these stations were more complex. Whereas other geopolitical rivalries seemed to have mattered little, competition with Russia was a major cause of violence. Where alcohol was consumed, British bluejackets often fought sailors of other nationalities in displays of performative violence and being portrayed as patriots when doing so. Where law and order was threatened, however, as well as fraternal relationships with resident populations, this violence was castigated. These interactions showed the complexity, and contradictions, of the sailor's identity—maritime, naval, western, British, and imperial—but also very much subject to the restrictions of rank and social status.

Exploring the Station

Coaling stations were in many ways familiar to sailors as was described in the previous chapter. Their western and maritime communities, naval spaces, recognisable institutions, and landmarks with imperial and naval connotations lent some familiarity to sojourns, thus giving the sailor an impression of a level of uniformity amongst stations.¹ Yet to concentrate merely on these facets is to forget that each station held a character of its own, and these places, however familiar, were often set in alien landscapes and cultures. The naval men themselves saw this—particularly those who had no experience of foreign lands—as, alongside accounts of other Britons and westerners they met at stations, they recorded the experience of being given leave on these stations as something of a culture shock, especially for those on stations outside European and “western” waters. Even the reminiscences of those who had extensive travel experience show that they remained captivated by the imperial landscapes they encountered at coaling stations. It is therefore unsurprising that recollections of their experiences are littered with references to the local people, landscapes, flora and fauna, and entertainment and culture of those places they visited. As Anning stated in his diary, sailors had

¹Oliver Walton, *Social History of the Royal Navy 1856–1900*, unpublished PhD Thesis, Exeter, 2003, 210.

“ample opportunity to visit the different towns, see the sights, and study the ways of the natives.”²

Not only could stations be vastly different spaces to British ports, they were also vastly different from each other, and this differences also shaped the sailor’s experience. For example, an entrepôt such as Singapore, which was packed with merchants, was very different from Gibraltar, which was largely just a naval base.³ Similarly, Sydney, largely populated by European émigrés, was a very different experience from that of Hong Kong, which had far fewer resident Europeans. Some stations were gateways to huge cities, and others were adjacent to beautiful scenery and unspoilt landscapes. Indeed, the differences between each station and its hinterlands drew much comment from naval men abroad. Yet there were similarities even between these very different spaces—not least their “otherness”—compared with Britain. Due to their purpose, the vast majority of coaling stations, or their adjacent settlements, were diverse and multicultural places and could contain a wide variety of people including British naval personnel, merchant seafarers, local populations, economic migrants, garrison soldiers, and foreign navies. The only places in Britain that replicated these elements were British “sailor-towns”—which were themselves seen as spaces of otherness—but even these were adjacent to the familiar “civility” of Britain and its people, not “separated from the port.”⁴ At foreign stations, in contrast, this panoramic demography was often placed by sailors upon a canvas of exotic or unfamiliar landscapes and indigenous peoples.

The importance of these experiences is augmented by the fact that many of the recollections recorded by sailors reached a domestic audience, thus feeding directly into the popular imagination of empire. Much of this may have been through personal letters, postcards, and periods at home, but a substantial array were available more widely, particularly though published log books, periodicals, and photography. These, as

² A.E.G. Anning, F.J. Bentley, and Lionel Yexley, *The Log of H.M.S. Argonaut, 1900–1904. China Station* (London: Westminster Press, 1904), v.

³ Mr. Dicks describes Gibraltar as “a very pretty place but with not much population only English soldiers and a dockyard.” *Diary of Mr. Dicks of H.M.S. Proserpine*, Royal Naval Museum, Manuscript Collection, JC 68 100/79 (2), 17.

⁴ Louise Moon, “‘Sailorhoods’: Sailortown and Sailors in the Port of Portsmouth circa 1850–1900”, unpublished PhD thesis, University of Portsmouth, 2015, 57. See also Brad Beaven, ‘The resilience of sailortown culture in English naval ports, c. 1820–1900’, *Urban History*, 43, 1 (2016), 72–95.

James Ryan suggests, enabled people to “symbolically ... travel through, explore and even possess these colonial outposts.”⁵

THE SAILORS’ EXPERIENCES OF THE COALING STATION

With an abundance of leave granted to all members of a ship’s company and the frequency of visits to numerous places, during a three-year commission these men would spend significant time at leisure on several different stations. Such generous shore leave offered to the naval sailors meant that, unlike those merchant seafarers shackled to itineraries, sailors were relieved of official duties for extensive amounts of time, and thus could become travellers, tourists, and explorers. This meant that they experienced stations in a different way and, moreover, became an important economic, social, and cultural part of life at these stations.⁶ They may have been transient compared with residents, but the frequency of visits to most stations, as well as navies growing throughout the period, meant that many stations had permanent sailor populations, albeit of changing personnel. This meant that the relationship between the men ashore and the station was reciprocal: the station left an enduring impression on the sailor and the sailor on the station.

Naval men and residents at the coaling station may have often been parts of the same community, as described in the previous chapter, but there were key differences in the how they experienced the same place. Unlike the colonial elites, resident emigrant populations, as well as soldiers who often segregated themselves from indigenous populations and remained in the space of the station permanently, sailors were far more likely to interact with local people and stations. The fleeting and recreational nature of their visits to these places meant that through visiting landmarks, enjoying the landscape, and discovering foreign bazaars they were far more immersed in local cultures.⁷ The numbers of sailors abroad

⁵James R. Ryan, *Picturing Empire: Photography and the Visualization of the British Empire* (Chicago: University of Chicago Press, 1998), 13.

⁶Tim Cresswell, *Place: A Short Introduction* (Oxford: Blackwell, 2004), 23.

⁷Stephen J. Hornsby, ‘Discovering the Mercantile City in South Asia: The Example of Early Nineteenth-Century Calcutta’, *Journal of Historical Geography*, 23, no. 2 (1997). This was also true of British Hill Stations in India. See Judith T. Kenny, ‘Climate, Race, and Imperial Authority: The Symbolic Landscape of the British Hill Station in India’, *Annals of the Association of American Geographers*, 85, 4 (1995).

may represent less than half of the total army personnel on foreign stations during the same period, but the necessary positioning of coaling stations on the coast meant that unlike soldiers, these sailors were thrust into imperial contact zones as soon as they came ashore, with local workers filling the port areas. Thus, unlike places such as the Indian military station or British Administrative Areas, the surrounds of the coaling stations were not “occupied, modified and principally inhabited by representatives of the colonising society,” nor were they a space marked “in terms of separateness” but instead “in terms of co-presence, interaction, interlocking understandings and practices, and often within radically asymmetrical relations of power.”⁸

Just as with their interactions with western maritime communities, the ways and extent to which sailors interacted with indigenous peoples and landscapes at stations was most influenced by the issues of class and rank. As already described, the variance in class of naval men meant they would form relationships with different levels of society at the stations. Thus, whilst officers would interact with those colonial elites resident at stations, reinforcing the diplomatic role of the navy, bluejackets and junior officers were noticeably more likely to mix in bazaars and to have a common interest in local cultures.⁹ That is not to say that senior officers had no interaction with the station at all; many could be found, alongside men of their position, exploring the landscape and environs of the station. Yet shore leave in a foreign station, unlike time on the ship, was an opportunity for the ship’s company to adopt individualist identities often reflecting class, but also regional identity or role on ship, and activities were often partaken of in small groups. Nevertheless, the influx of such large numbers of naval men, particularly bluejackets, had a significant effect on the stations.

When analysing the relationships formed by naval men with the stations, it becomes clear that these stations were imperial “contact zones,” nodes of naval coaling networks where transient communities interacted with the station, its cultures, indigenous populations, fauna,

⁸A.D. King, *Colonial Urban Development: Culture, Social Power and Environment* (London: Routledge, 1976), 17; Mary Louise Pratt, *Imperial Eyes: Travel Writing and Transculturation* (London: Routledge, 1992), 8.

⁹Walton, *Social History of the Royal Navy*, 183.

and flora.¹⁰ The regular yet transient presence of men of the Royal Navy within these zones meant that they became “one of the ingredients of an existing hybridity” at the station. The complex identities of the sailors and the unique ways in which they interacted with the station, its population, and its environs created what has been termed a “colonial third culture,” not just a combination of distinct cultures of navy and station but a new culture in itself.¹¹ These stations were not experienced in the same way as British stations and their sailortowns, but the interaction between these visitors with the local populations, indigenous culture, and landscapes shaped the experience of the sailor and the place itself. This difference, both with domestic naval spaces and other imperial outposts, makes the stations such interesting places. As a result, despite sailors’ mobile existence, coaling stations were not experienced just as places of work but explored as “authentic, rooted, bounded place[s]” with distinct “histor[ies] that permeate[d] the networks that flow[ed] through” them. Thus, sailors did not see coaling stations as a series of insignificant “non-places” that merely filled the time between naval manoeuvres. Instead, the individual characteristics of each place were crucial because they shaped the experience of British naval men.¹²

INTERACTIONS WITH INDIGENOUS POPULATIONS

It seems obvious to state that when arriving at naval coaling stations sailors could only access the land through the harbour, but this had an impact on the way they experienced these places. Indeed, from their arrival seamen were thrust immediately into the most diverse racial and cultural space, particularly at large trading centres. Interactions with local peoples encountered in these places were often reciprocal: naval vessels provided a captive market for the local merchants and opportunist pedlars, and sailors were usually in want of goods, laundry services, and hospitality. Indeed, the mobility of the sailors was crucial to the survival of many local populations, such as at Valletta, where the local populations

¹⁰Pratt, *Imperial Eyes*.

¹¹Lucy Lippard cited in Cresswell, *Place: A Short Introduction*, 49; King, *Colonial Urban Development*, 58–59.

¹²Tim Cresswell, *On the Move: Mobility in the Modern Western World* (London: Routledge, 2006), 220, 225, 257.

“depend[ed] very largely on the fleet for a living.”¹³ Many stations heavily relied on the influx of sailors for prosperity. Contemporary press articles highlighted the “luxuries” enjoyed by Jack Tar and the business opportunities this presented. One cites the voracious demand for tobacco bought ashore and suggested that in a period of leave £300 could be spent just on food provisions for the ship.¹⁴

Often, sailors would encounter local people even before disembarking as many traders took a more aggressive attitude to selling their goods by coming directly to the ship at anchor. When the *Retribution* arrived at St. Lucia, “there was a fine crowd of niggers there waiting [its] arrival with baskets of fruit,” where they would swap fruit for jumpers.¹⁵ At Madeira, ships were surrounded by boats of all descriptions selling wicker baskets, fruit, parrots, and canaries, which would be swapped for sailors’ old clothes.¹⁶ H.M.S. *Swallow*, on arriving in the waters surrounding Cape Coast Castle, witnessed “natives” in war canoes “chanting their wild, weird litanies like people possessed,” and selling bananas, pineapples, pomegranates, mangoes, yams, ivory, wood, and jewellery.¹⁷ The officers of H.M.S. *Natal*, when coming into coal at Aden, “actually allowed men to come aboard selling curios ... ostrich feathers, Palestine souvenirs which men bought readily. The men bought plenty of chocolate and Turkish delight.”¹⁸ At Singapore, the *Karrakatta* was swarmed with locals selling silks and fruit, and at Bombay people came aboard not only to sell cashmere and silk but also to repair boots and perform chiropody.¹⁹ Whilst many sailors bought goods and services from these traders, it is hard to escape the contemptuous tones in their attitudes toward them.

¹³Cresswell, *On the Move*, 251; G.R. Parker, *The Commission of H.M.S. Implacable, Mediterranean Station, 1901-1904* (London: Westminster Press, 1904), 6–7.

¹⁴‘Jack Tar and His Luxuries’, *Queensland Times*, 21 December 1908.

¹⁵W.H. Watts, *The Commission of H.M.S. Retribution, North American and West Indies Station, 1902-1904* (London: Westminster Press, 1904), 17–19.

¹⁶*Ibid.*, 14.

¹⁷Sam Noble, *Tween Decks in the Seventies: An Autobiography* (London: Sampson Low, Marston and Company, 1925), 92–93.

¹⁸Diary of A C East, H.M.S. *Natal* on its Cruise to India as escort to Royal Visit, 20 January 1912, National Museum of the Royal Navy, Manuscript Collection, 95/90 (28).

¹⁹Reginald A. Silk, *The Log of H.M.S. Karrakatta, 1900-1903, Australian Station* (London: Westminster Press, 1904), 15, 19–21.

It was not just to sell wares and services that locals visited warships but also to entertain the sailors, and these visitors appear to have been welcomed by sailors. At Penang, “natives” came aboard to dance and juggle.²⁰ Sailors of H.M.S. *Royal Arthur* were again entertained by “native jugglers” at Bombay and also by snake charmers and fortune tellers. In Suva, Fiji, sailors enjoyed a catamaran race, dancing, fire walking, and even a visit from a Royal party.²¹ More primitive entertainment was also enjoyed including pitting a mongoose against a snake in a fight to the death, thus allowing the sailors to partake in gambling.²² Although some accounts bemoan such invasions of naval space, evidence of the employment of services, goods, and entertainments by sailors aboard ship suggests that most of these interactions were mutually beneficial. Yet, even where this is the case, those who came aboard were rarely seen as more than providers of services who were at best seen as exotic, at worse denigrated.

Whereas local merchants saw the arrival of these warships as a business opportunity, some visitors came only to witness the size and modernity of a British warship. Such impressive ships and large numbers of men inevitably drew interest from local populations; thus, at those stations less frequently visited by state-of-the-art warships—such as Piraeus, Karachi, and Madras—large crowds would visit to marvel at these wonders of technology.²³ At the Maldives, which saw a British ship perhaps only once a year, sailors found that, as a result, “the natives make as much of us as possible.” It was not only the local people but also the Sultan himself who went out of his way to accommodate the sailors, even arranging a football and cricket game in the palace grounds. He also gave them several gifts including a bullock and “a boat load of limes and cocoanuts.” This example reflects the power relations between the Sultan

²⁰Ibid., 17.

²¹H. Callow, *The Commission of H.M.S. Royal Arthur, Flag Ship, Australian Station. 1901–1904* (London: Westminster Press, 1904), 74–76.

²²A. Reeve, *The Commission of H.M.S. Perseus. East Indies, Including Persian Gulf and Somaliland. 1901–1904* (London: Westminster Press, 1904), 26; Silk, *The Log of H.M.S. Karrakatta*, 19–21.

²³W. Wheeler, *The Commission of H.M.S. Pandora, Mediterranean Station, 1901–1904* (London: Westminster Press, 1904), 25–28; Reeve, *The Commission of H.M.S. Perseus*, 6, 40; G. Crowe, *From Portsmouth to Peking Via Ladysmith with a Naval Brigade* (Hong Kong: Hong Kong Daily Press, 1901), 86.

and Britain, which was recognised by the sailor who recorded the visit, who noted that these were gifts from a people to the navy “under whose protection they are.” This point was made clear to the Sultan when he visited the ship, which was dressed in his honour. He was encouraged to interact with the state-of-the-art technology—“whilst on board he fired a torpedo,” saw a new 4’ gun, and dispatched “a wireless message to Colombo and had an answer,” as well as being “greatly interested in the gramophone which was playing on the Quarter Deck.” Moreover, in witnessing a boxing and gymnastics display, the Sultan also gained an impression of the fitness of the crew as well as of that of the ship.²⁴ Such interactions were not accidental. Those who encountered these vessels and seamen interpreted their identities in different ways, and these interactions were deeper than merely transactional: they were also potent symbols of the power of the British Empire abroad. As such, they could variously be interpreted as a reassuring presence and deterrence to potentially aggressive rivals but also as a statement of power and a warning against rebellion. Yet these visits equally showed how the British viewed the Sultan, who—despite his race—was offered the best hospitality possible, thus recognising both his status as a royal but also as a key ally for Britain. These visits were therefore naval and imperial theatre.²⁵

Interactions with indigenous peoples were not limited to just the ship, of course, and the need for services provided by locals is further reinforced by the fact that sailors would often seek them out on land. In particular, naval men would usually frequent the markets and bazaars of non-westernised foreign stations to purchase wares and immerse themselves in local maritime culture. Although purchasing essential goods and services was often the reason for visiting such places, sailors would usually buy souvenirs. These purchases suggest an interest in the cultures of stations that went beyond simply buying essential supplies. This appears to have happened at almost all stations; for example, when the *Royal Arthur* arrived at Malta, “the usual invasion of vendors took place, making bargains (?) for lace, holy stone, etc.”²⁶ Most was written about the

²⁴Diary of Mr. Dicks of H.M.S. *Proserpine*, Royal Naval Museum, Manuscript Collection, JC 68 100/79 (2), 62–64.

²⁵For a thorough exploration of this idea, see Jan Rüger, *The Great Naval Game: Britain and Germany in the Age of Empire* (Cambridge: Cambridge University Press, 2007).

²⁶Callow, *The Commission of H.M.S. Royal Arthur*, 7.

markets of the more culturally different stations, however. Several cities were well known for their bazaars—Tokyo was said to “swarm” with them—and the products and people drew many comments from sailors.²⁷ In Shanghai, for example, “practically anything could be obtained, Chinese or English.”²⁸ Similarly, on Hong Kong’s Queen’s Road there were “merchants of every type,” and at Bombay “the men took advantage of going on shore to get curios etc.”²⁹ At Yokohama, a sailor’s appetite for silk, bronze, lacquer, porcelain, and other curiosities could be met, and at Chefoo they could visit the silk factories themselves.³⁰ Cashmere was abundant in markets at Karachi; one could purchase Indian shawls at Gibraltar; and a visitor could buy silk scarves, carpets, and Turkish delight at the Turkish port of Smyrna.³¹ A crew member of the *Philomel* purchased a “seedie” instrument at Muscat, and, whilst the playing and singing of the indigenous musician were criticised, the instrument itself was highly prized, being locked up on ship and being drawn in the diary. Perhaps part of this value was drawn from the sailor’s working encounters with “seedie” sailors from Zanzibar (a former colony of the Sultan of Oman) who served on African station ships.³²

The sense of fascination with the unique facets of individual coal-
ing stations suggested by these purchases of local wares is augmented
by the descriptions of the racial and cultural diversity of traders at the
station. Bombay’s bazaars were said to contain a “motley population,”
just as Colombo’s were “teeming with every variety of oriental race and

²⁷J.B. Brodie, A.F. Ray and Lionel Yexley, *The Log of H.M.S. Goliath, China Station, 1900–1903* (London: Gerrards, 1903), 103.

²⁸G.H. Gunns, *The Log of H.M.S. Sutlej, Pacific and China Stations, 1904–1906* (London: Westminster Press, 1906), 140.

²⁹W.J.J. Spry, *The Cruise of Her Majesty’s Ship Challenger* (London: Sampson Low, Marston and Company, 1899), 193–201; Diary of A C East, H.M.S. *Natal* on its Cruise to India as escort to Royal Visit, 9 January 1912, National Museum of the Royal Navy, Manuscript Collection, 95/90 (28); Diary of Mr. Dicks of H.M.S. *Proserpine*, Royal Naval Museum, Manuscript Collection, JC 68 100/79 (2), 86.

³⁰H. Breaks, *The Log of H.M.S. Bonaventure, Pacific and China Stations, 1903–1906* (London: Westminster Press, 1906), 70–71.

³¹Journals of Donovan C. Roe, 1911–1912, NMM, JOD/92/2; Reeve, *The Commission of H.M.S. Perseus*, 6; J.R.M.A. Brown, *The Log of H.M.S. Repulse, 1902–1904, Mediterranean Station* (London: Westminster Press, 1904), 56.

³²Diary of Petty Officer Lew Hanbridge, H.M.S. *Philomel*, 14 January 1916, British Library, MSS. Eur.C.172.

costume.”³³ In Hong Kong, although there were many Chinese, often wearing national dress, a visitor could also expect to see “Jew, pagan, and Christian, Buddhist and Parsee, ... Japanese, and European fill[ing] the streets.”³⁴ Singapore, although dominated by a large Chinese population, was also home to Malay, Japanese, “Hindoo,” Persian, “wild tartar,” Bornese, Sumatran, Japanese, “jet black Africans” and even New Zealanders. This variety of races and customs made “Singapore’s human panorama most exciting and interesting.”³⁵ A Royal visit to Aden brought out “a most picturesque gathering of natives ... trying to see who could dress up in the most vivid colours,” and was more generally “a very cosmopolitan sort of place you see all colors of men and dress, and every nationality, and their methods and ways are sometimes strictly amusing.”³⁶ At Bombay, the “gaudy headdresses of its mixed population turn the streets into a blaze of colour.”³⁷ European stations also presented visitors with a vast array of cultures and peoples. Both Malta and Gibraltar contained “men of pretty well every nationality.”³⁸ This variety made these places unique places containing “a mixture of races, customs, and manners, such as can scarcely be found at any other place in Europe.”³⁹ Even at small stations—such as Fremantle, Western Australia—“the streets [were] crowded with all nationalities.”⁴⁰

³³John Anderson Dougherty, *The East Station; or the Cruise of H.M.S. Garnet 1887–1890* (Malta: Muscat Printing Office, 1892), 87, 115.

³⁴Spry, *The Cruise of Her Majesty's Ship Challenger*, 193–201.

³⁵Brodie, Ray, and Yexley, *The Log of H.M.S. Goliath*, 8; Raphael Semmes, *The Confederate Raider Alabama* (London: Richard Bentley, 1865), 320–335.

³⁶Diary of A.C. East, H.M.S. *Natal* on its Cruise to India as escort to Royal Visit, 25 November 1911 and 20 January 1912. National Museum of the Royal Navy, Manuscript Collection, 95/90 (28).

³⁷Reeve, *The Commission of H.M.S. Perseus*, 66.

³⁸Brown, *The Log of H.M.S. Repulse*, 16.

³⁹Spry, *The Cruise of Her Majesty's Ship Challenger*, 14; Gunns, *The Log of H.M.S. Sutlej*, 8.

⁴⁰Callow, *The Commission of H.M.S. Royal Arthur*, 35, 38.

VIEWS OF INDIGENOUS POPULATIONS

Such diversity was generally celebrated as creating a thrilling and novel environment, but local peoples were often seen merely as objects of curiosity, constituent parts of the exotic landscape.⁴¹ Attitudes toward local people at stations largely adhered to the generally patronising contemporary ideas of race and their characteristics even if they were not chiefly negative or denigrating. In fact, it is remarkable how much interest naval men took in at least some indigenous peoples, perhaps as a result of the nature of these interactions. Indeed, just as impressions of local heavers were shaped by the fraught nature of coaling, impressions of local populations during leave were tempered by the touristic nature of these encounters. Of particular note were the comments devoted to Polynesian and Melanesian peoples, which reflected the accepted idea of them as “exotic, distant and other,” as illustrated by the log of the *Karrakatta*, which dedicated twelve pages to notes on traditional Maori culture.⁴² Similarly, the praise of Fijians for their “splendidly formed bodies,” reflected the connection between ideas of Pacific Islands as idylls and their peoples as “a valuable backdrop for island dreaming” as well as reinforcing tropes of exotic beauty and sexualities.⁴³

The wider idea that these South Sea islanders were “almost Caucasians” was supported by the reports given by naval men of the progress of the civilising mission on the Australia Station.⁴⁴ Although this was perhaps meant in a metaphorical sense, some contemporaries tried to make racial connections between the two.⁴⁵ Indeed, reports in naval logs suggested that Maoris and South-Sea Islanders were, somewhat patronisingly, “fast coming within the pale of civilisation.” Although they were

⁴¹See Mimi Sheller, *Consuming the Caribbean: From Arawaks to Zombies* (London: Routledge, 2003).

⁴²John Connell, ‘Island Dreaming: The Contemplation of Polynesian Paradise’, *Journal of Historical Geography*, 29, no. 4 (2003); Silk, *The Log of H.M.S. Karrakatta*, 54–65.

⁴³Callow, *The Commission of H.M.S. Royal Arthur*, 74–76; Connell, ‘Island Dreaming’. For studies of Western understandings of Pacific sexualities see Matt K. Matsuda, *Empire of Love: Histories of France and the Pacific* (Oxford: Oxford University Press, 2005); Lee Wallace, *Sexual Encounters: Pacific texts, modern sexualities* (Ithaca, NY: Cornell University Press, 2003).

⁴⁴Connell, ‘Island Dreaming’; Silk, *The Log of H.M.S. Karrakatta*, 54–65.

⁴⁵See, for example, Lieutenant-Colonel T.R. St.-Johnston, *The Islanders of the Pacific: or The Children of the Sun* (London: T. Fisher Unwin, 1921), 263.

held back by “strange customs and superstitions,” they were still of great interest to the sailor.⁴⁶

Similarly, ideas about civilisation, or indeed westernisation, brought about positive reports of some local peoples on the China Station. The company aboard the *Grafton* took great interest in the “figure, physiognomy, costume, and customs of the people” of Yokohama, concluding that they were, “on the whole, a short, sturdy race of people,” who were “also very intelligent, industrious, and very courteous in their manners.” Such was the impression that the locals made on the ship’s company that the log records “Yokohama had endeared itself to the hearts of our ship’s company, and we left with many regrets and wishes for a speedy return.”⁴⁷ It was also noted that on stations such as Nagasaki and Yokohama, locals were slowly adopting English customs.⁴⁸ The idea of a racial hierarchy is particularly shown in these examples, with the adoption of western, and particularly British, customs seen as a step toward civilisation for these peoples. In this way, contemporary ideas about Japan, which placed it above other peoples of east Asia, but not entirely equal to a Briton, were reflected by the accounts of sailors.⁴⁹ Many imagined the British sailor to be an object of admiration to “orientals.”⁵⁰ In fact, sailors consistently used themselves as a yardstick to measure others against, and there was an assurance that contact with Britons would act as a catalyst in their progress toward “civilisation.” Thus, the log of the *Bedford* considered that “Chinamen at the ports,” who had been in contact with sailors, “in many respects [were] a more advanced and enlightened being than those of inland towns,” who had not.⁵¹ The influence of British servicemen appears to have had less of an impact at Chefoo, however, where “the natives [were] evidently learning the English language, but their ideas are still confused.”⁵² Sailors would often divide populations by their

⁴⁶ H.M. Fowler, *The Log of H.M.S. Encounter, Australian Station, 1908–1910* (London: Westminster Press, 1910), 124.

⁴⁷ Gibbs, *The Cruise of H.M.S. Grafton*, 10–11.

⁴⁸ Anning, Bentley, and Yexley, *The Log of H.M.S. Argonaut*, 33.

⁴⁹ Rotem Kowner, “‘Lighter Than Yellow, But Not Enough’: Western Discourse on the Japanese ‘Race,’ 1854–1904,” *Historical Journal*, 43, 1, 103–131.

⁵⁰ A.E. Butterworth, *The Log of H.M.S. Bedford, China Station, 1907–1909* (London: Westminster Press, 1909), 128.

⁵¹ *Ibid.*

⁵² Gibbs, *The Cruise of H.M.S. Grafton*, 85.

perceived civility, and, perhaps pertinently, their use to the British. Thus, the population of Kowloon, Hong Kong, were “very noisy and dirty. The company’s officials however are most civil and obliging to one.”⁵³ Whilst these examples show that many indigenous peoples made a positive impression on sailors and were often viewed with studious interest, they would only ever be “almost” as civilised as the British seaman, still exotic, and hampered by “strange” and “confused ideas and customs.”

Those peoples observed by sailors to lack the willingness to “civilise,” or to conform to western expectations, were portrayed more critically, and sailors often resorted to crude stereotypes. Whereas there were many examples of praise for inhabitants of the China Station, some populations received more disparaging comments. At Chinampo, it was observed that “Korean people seem to be a slovenly race; the women only dress to the waist, the upper part of the body being exposed and very dirty.”⁵⁴ Sailors of the *Alacrity* paint a similar picture describing them as “most curiously dressed” and as a “decidedly dirty race.”⁵⁵ Similarly, at Singapore, the people were lambasted for their “ridiculous attire.”⁵⁶ At Canton, it was reported that the population was some two million, and “the majority of them are an awful looking lot of ruffians and blackguards.”⁵⁷ The populations of some parts of Asia were seen as particularly barbarous. At Formosa, the “natives” were “considered savage and warlike, and have given much trouble to the Chinese and Japanese due to their proclivity for head hunting.”⁵⁸ The beauty of the station could also be used as a counterpoint with which to criticise its indigenous population. Colombo was “a very pretty place” where “there are grand gardens with fruit tress galore,” yet “in the native quarters it is just the reverse the smell is abominable native chewing betel nut which makes their mouths a bright red in colour. Also you can’t hardly detect the men from the women on account of them all wearing cloths around

⁵³Journal kept by Edward Charrington, 1899–1902, National Museum of the Royal Navy, Manuscript Collection, 1999/51/7.

⁵⁴Now Namp’o, North Korea. Gunns, *The Log of H.M.S. Sutlej*, 96.

⁵⁵Journal kept by Edward Charrington, 1899–1902, National Museum of the Royal Navy, Manuscript Collection, 1999/51/7.

⁵⁶Silk, *The Log of H.M.S. Karrakatta*, 15.

⁵⁷Journal kept by Edward Charrington, 1899–1902, National Museum of the Royal Navy, Manuscript Collection, 1999/51/7.

⁵⁸*Ibid.*

their waist, and long hair with a semi circle comb, the lower class wearing nothing above their waists so you can understand how disgraceful they all look.”⁵⁹ Thus, the indigenous population were not, in these cases, part of an exotic background but instead a blemish upon it. A similar impression is given of those inhabitants of South America and the Caribbean. At Acapulco, for example, the populace were criticised for their “indolent nature” because they spent “most of their time in wine shops and watching cock fighting.”⁶⁰ Similar criticism was aimed at the black inhabitants, particularly at St. Lucia and Jamaica. Not only were these “niggers” idle, but they were “dressed in the most grotesque rigs imaginable: one in a pair of pants which are tied round his neck, and a bluejacket’s old cap.”⁶¹

Judgements of a station’s population were not always based solely on perceived race, however. At some stations, less savoury incidents coloured perceptions of its people. A sailor who went to buy provisions for the ship at St. Vincent, for example, was drugged by a “vile looking Portugee,” robbed, stripped, and left on some rocks. Once found, the offender was hanged by the local authorities, leading one sailor to suggest that he would “wager none in that cinder keep of an island ever wanted to interfere with a British bluejacket again.”⁶² Other serious incidents at stations included a member of the Mediterranean fleet, at Salonica, Turkey, being “badly stabbed,” and at Malta, a young bluejacket was murdered “in cold blood.”⁶³ Some stations, for these reasons, had areas that sailors would avoid frequenting. For example, men were “warned against going into the native part of Bombay” due to the previous violence against sailors.⁶⁴ It was not just violence from indigenous peoples against sailors, however, that caused disquiet at stations. Although rarely aired, alcohol-induced violence against local populations did occur. The East India station, for example, fell victim to this

⁵⁹Diary of Mr. Dicks of H.M.S. *Proserpine*, Royal Naval Museum, Manuscript Collection, JC 68 100/79 (2), 52.

⁶⁰Albert Newton, *The Commission of H.M.S. Grafton, Pacific Station, 1902–1905* (London: Westminster Press, 1905), 125.

⁶¹Watts, *The Commission of H.M.S. Retribution*, 99–100.

⁶²Noble, *Tween Decks in the Seventies*, 90–92.

⁶³Wheeler, *The Commission of H.M.S. Pandora*, 8, 81.

⁶⁴Diary of A C East, H.M.S. *Natal* on its Cruise to India as escort to Royal Visit, 1st December 1911, National Museum of the Royal Navy, Manuscript Collection, 95/90 (28).

when the *Proserpine* arrived. A sailor recalled that “leave is granted every night, but it is being abused for instance a couple of stokers capsized a garry walla (a native carriage) so the skipper stopped their leave for some time.”⁶⁵ These incidents are rarely recorded, however, giving the impression that in general relationships appear to have been cordial between sailors and local indigenous populations. Yet, this perhaps has more to do with a lack of existing records than the actuality of the situation. With sailors, and those further up the hierarchy, giving little thought to the plight of those indigenous populations beyond their use to naval men—as shown with both indigenous coal heavers and prostitutes—it is perhaps unsurprising that violence against them would remain unreported.

PROSTITUTION

Where a station had an indigenous population, it was not only seen as part of the exotic landscape but also as a provider of services for the naval man. This, of course, included essential services such as food, board, and laundry but also catering to the sailors’ desires. Thus, as we have seen, sailors were easily able to acquire alcohol, but the desire for sex had a wider effect on the populations at coaling stations. Much like the abuse of alcohol, the naval use of prostitutes was of great concern to many in Britain who held moral objections about such practices. Yet it was largely tolerated by those officers abroad, who saw it as an almost animal necessity for many of those of the lower ranks, which, if banned, may cause insurrection. As such, this was to be expected, because “the sailor had archetypically been perceived as the roaming man free of legal and emotional ties, loving and leaving them in ports all round the world.” Yet, unlike alcohol, the effects of this on sailors’ health was regularly serious—young, unattached men with high mobility were especially at risk of sexually transmitted diseases—and thus trying to control disease became of paramount concern to the Admiralty.⁶⁶

The regular use of prostitutes by sailors abroad was, unsurprisingly, not something mentioned by many accounts of overseas commissions.

⁶⁵Diary of Mr. Dicks of H.M.S. *Proserpine*, Royal Naval Museum, Manuscript Collection, JC 68 100/79 (2), 33.

⁶⁶Lesley A. Hall, ‘What shall we do with the poxy sailor?’ *Journal of Maritime Research*, October 2004, 113, 116.

Table 9.1 Primary syphilis infection rate (per 1000) on British naval stations, 1868–1913. Compiled from British Parliamentary Papers, *Navy (Health)*

<i>Station</i>	<i>1868</i>	<i>1874</i>	<i>1877</i>	<i>1884</i>	<i>1892</i>	<i>1897</i>	<i>1903</i>	<i>1908</i>	<i>1913</i>
All	–	–	–	–	47.53	–	35.9	9.49	5.66
Mediterranean	47.5	45.6	27.87	56.14	41.73	31.45	24.33	7.87	5.4
North America and West Indies	68	22.7	28.84	37.6	31.46	37.65	29.25	7.66	5.07
South East Coast of America	15.5	16.5	27.77	24.33	12.9	27.53	–	–	–
Pacific	54.7	30.6	34.39	35.33	33.33	25.98	27.02	–	–
West African	20.6	21.8	35.71	31.42	32.43	25.62	–	11.4	12.71
East Indies	45.1	47.8	57.61	39.37	65	64.7	25.87	9.3	4
China	112.1	106.3	69.01	39.63	59.72	98.44	34.8	10.68	5.68
Australian	21.6	40.2	51.16	15.7	19.67	42.8	31.6	13.01	6.66

Seen as a lack of self-control and a subversion of the ideal of married life, this common vice did not adhere to the projection of the changed sailor of the late Victorian period. Indeed, anxious to present a wholesome image of the navy, there is only one suggestion of immorality in over forty logs in the series published by Westminster Press at the turn of the century. Within an entry for Mauritius, some of the ship's company visited several "houses of refreshment and entertainment," where they enjoyed "wine, women and song" after which, "they went for an orgie" with several of the women.⁶⁷ Beyond this, there is little direct evidence in the logs of the use of prostitutes by ships companies on foreign stations, even in private diaries. Overwhelming evidence is provided, however, by the *Statistical Reports of the Health of the Navy* published each year. Each gives figures, with varying degrees of detail, for the rate of contraction of venereal diseases, particularly syphilis, on each station. These reports not only show that the use of prostitutes in foreign stations was commonplace, but that it was a major cause of ill health within the fleet due to the spread of venereal disease. Indeed, while the flows of people into these coaling stations created many positive (and negative) cultural exchanges, they also allowed for the flow and exchange of diseases throughout the maritime world.

⁶⁷ Dougherty, *The East Station*, 84.

The infection of sailors was a serious issue because an infected man needed a considerable amount of time in the sick bay to recover.⁶⁸ Furthermore, in the case of syphilis, the recurrence of the disease in its secondary form was another significant reason for a sailor to be incapacitated. The transient nature of maritime communities meant that infections could easily spread between stations, especially if concealed by infected men.⁶⁹ For this reason, sailors who hid their inflictions were admonished far more severely (Table 9.1).

In general, syphilis was deemed to be more serious than gonorrhoea, which was often seen as a rite of passage for a man with few further consequences, at least for the infected male. Syphilis, however, was congenital and could cause systemic consequences and even death. It accounted for an average of 31.6 days of service time lost per case over the period, although in some cases this was as high as 43 days. It would also, of course, have effects on local populations, but this seems to have been of little concern to the navy. Indeed, measures taken to reduce venereal disease were not for the protection of prostitutes but, as the Governor of Hong Kong, Sir J. Pope Hennessy, suggested “clean Chinese women” should be provided “for the use of British soldiers and the sailors of the Royal Navy.”⁷⁰ Such statements suggest that, like the local coal heavers, local prostitutes were seen as there merely to serve the needs of the navy, dehumanised to the point of becoming no more than a tool with which to perform the “necessity of catering to the sexual requirements of service personnel.”⁷¹ The use of prostitutes in this way was judged the best way of tempering the sailors’ sex drive—“an aggressive, active force”—thus preventing life at these stations from becoming “morally and physically dangerous.” Again, the only way for the officers to control the bluejacket was to allow him to satisfy his child-like, carnal urges.

⁶⁸See, for example an article by a naval surgeon, J.P.H. Greenhalgh, ‘Syphilis in the Royal Navy’, *British Medical Journal*, 1900, 2, 1497.

⁶⁹British Parliamentary Papers, 1870 (202) *Navy (Health) for the Year 1868*.

⁷⁰R.J. Miners, ‘State Regulation of Prostitution in Hong Kong, 1857 to 1941’, *Journal of the Hong Kong Branch of the Royal Asiatic Society*, 24 (1984), 145. See also Philip Howell and David Lambert, ‘Sir John Pope Hennessy and Colonial Government’, in David Lambert and Alan Lester (eds), *Colonial Lives across the British Empire: Imperial Career in the Long Nineteenth Century* (Cambridge: Cambridge University Press, 2006), 228–256.

⁷¹Philip Howell, *Geographies of Regulation: Policing Prostitution in Nineteenth-Century Britain and the Empire* (Cambridge: Cambridge University Press, 2009), 179.

This was deemed acceptable, perhaps even natural, in these colonial ports because prostitution was seen as “living evidence of the native disorder.”⁷² Indeed, a common trope of this period was the link between perceived levels of civilisation and the sexualisation of indigenous women.⁷³ Such views also served another purpose in that denigrating the indigenous female population was a way of maintaining the colonial status and authority of female settlers. This stance is confirmed by the fact that those prostitutes catering solely for local men in Hong Kong and other stations were often exempt from those measures implemented to control venereal diseases because they posed no threat to naval or military personnel.⁷⁴

Where measures were in place, regular invasive checks and mandatory incarceration for infected prostitutes were enforced. By squarely placing the blame on prostitutes, these measures were often “a matter ... of intrusive, authoritarian government founded on the subject status of the native population.”⁷⁵ Not only did this confirm contemporary views of racial hierarchies, it also established the status of women as more likely to be subjects of control than men.⁷⁶ This allowed the satisfaction of the sexual needs of naval men while justifying the close control of local peoples and especially women.⁷⁷ Such degrading and prejudiced measures were justified in the minds of the Royal Navy by what appeared to have been positive outcomes of the policies at least in terms of naval rates of infection. Again, the reports of lower infection rates at stations assert that the blame for these diseases lay solely with the prostitutes, not with those sailors soliciting sex at each port they visited. Thus, it was reported that in Yokohama, which had previously been notorious for disease, “the condition of the native prostitutes had been considerably ameliorated

⁷² Philippa Levine, “‘A Multitude of Unchaste Women’: Prostitution in the British Empire’, *Journal of Women's History*, 15, no. 4 (2004), 159.

⁷³ See, for example, Anne McClintock, *Imperial Leather: Race, Gender and Sexuality in the Colonial Conquest* (London: Routledge, 1995), 47; Philippa Levine, ‘States of Undress: Nakedness and the Colonial Imagination’, *Victorian Studies*, 50, no. 2, 189–219.

⁷⁴ Howell, *Geographies of Regulation*, 211; Levine, “‘A Multitude of Unchaste Women’: Prostitution in the British Empire’, 161.

⁷⁵ Howell, *Geographies of Regulation*, 189.

⁷⁶ *Ibid.*, 5.

⁷⁷ Levine, “‘A Multitude of Unchaste Women’: Prostitution in the British Empire’, 162; Howell, *Geographies of Regulation*, 2.

by the judicious measures adopted for their benefit.”⁷⁸ Similarly, at Port Royal, Jamaica, where prostitutes had once been described as being “in a very diseased condition,” the measures had brought “very beneficial results.”⁷⁹

Where there was less success in decreasing the rates of disease, it was inevitably concluded that this was the fault to the prostitutes. In Barbados, the measures were seen to be of “very little use” as it was suggested that “nearly all the coloured population are prostitutes.” In Hong Kong, because brothels for Europeans were “as a rule, entirely free from disease,” syphilis contracted by naval men was blamed on “sly” prostitutes and boatwomen. Similarly, although Tokyo’s red-light district had medical surveillance, it was seen as being too far from the naval station so that Yokohama prostitutes not subject to examination were used and then blamed for outbreaks. The uneven implementation of the recommendations at stations also led to problems. Stations, such as St. Helena, did not implement the recommendations fully, whereas some, such as Bombay and Cape Town, withdrew their measures because of the costs it involved. These stations therefore remained rife with venereal disease, which was inevitably blamed on local populations.⁸⁰

Even where it was recognised that the flows of infected people around maritime spaces, which included foreign stations with no measures in place, caused outbreaks of venereal diseases, it was suggested the blame lay with the women, other seamen, or the town itself. The rate of infection at Barcelona, for example, was “very remarkable, but easily understood, when one considered the lamentable condition of that town, as far as the propagation of venereal diseases is concerned.”⁸¹ Similarly, Coquimbo in Chile did not fare well because there was “less amusement” and thus the sailors were “more likely to plunge into dissipation, and there [was] a considerable amount of syphilis, as women have been attracted by the prospect of ships being stationed here, and of more money being thus spent.”⁸² A further problem was that infected men

⁷⁸British Parliamentary Papers, 1870 (202) *Navy (Health) for the Year 1868*.

⁷⁹British Parliamentary Papers, 1870 (202) *Navy (Health) for the Year 1868*; British Parliamentary Papers, 1875 (380) *Navy (Health) For the Year 1874*.

⁸⁰British Parliamentary Papers, 1878 (397) *Navy (Health) for the Year 1877*.

⁸¹British Parliamentary Papers, 1875 (380) *Navy (Health) For the Year 1874*.

⁸²British Parliamentary Papers, 1875 (380) *Navy (Health) For the Year 1874*; British Parliamentary Papers, 1898 (343) *Navy (Health). Statistical Report of the Health of the Navy for the Year 1897*.

would arrive *en masse* at stations with previously low rates of infection and cause an outbreak. This was the case at Malta and Esquimalt, where British sailors carried venereal disease from home to their new stations, which was blamed on the state of prostitutes in Britain.⁸³ Similarly, what was seen as an especially virulent form of gonorrhoea arrived with whalers “of all colours and nationalities” because of their “filthy habits.”⁸⁴

Moral fervour in Britain against what was seen as state sponsorship of prostitution in 1886 caused the repeal of the measures implemented in Hong Kong and Singapore.⁸⁵ This meant that prostitutes no longer had to attend regular examinations and brothels spread all over cities rather than being confined to small areas. The result of this was that in 1897 half of the soldiers stationed in Hong Kong and sixty per cent in Singapore were under treatment for venereal diseases.⁸⁶ One can only assume that the numbers for sailors were similar. Although this was caused by sailors continuing to solicit sex, this unsurprising increase in infection was attributed to the lack of ability for the British to control the bodies of colonial women, and similar measures were reinstated soon after. In doing so, the navy again ignored domestic moral fervour in order to satiate the sailors’ purported needs without risking the well-being of the crew.

Venereal diseases were, of course, not the only ailments afflicting the seamen at coaling stations. Just as sexually transmitted diseases were easily spread due to the global nature of maritime connections, other contagious diseases could be transmitted across an entire station if they were not effectively controlled. Regulation of these diseases seems to have been fairly successful in the period from 1870 to 1914, at least amongst naval seamen, with few cases of epidemics appearing to have been recorded in surviving documentary evidence. This was generally achieved with the use of quarantine.⁸⁷ Little appears to have been done for local workers, however. The types of diseases that affected locals at stations varied but were most common at stations with climates and conditions

⁸³British Parliamentary Papers, 1878 (397) *Navy (Health) for the Year 1877*.

⁸⁴British Parliamentary Papers, 1893–1894 (404) *Navy (Health) for the Year 1892*.

⁸⁵The classic work on the Contagious Diseases Act is Judith R. Walkowitz, *Prostitution and Victorian Society: Women, class and the state* (Cambridge: Cambridge University Press, 1980).

⁸⁶Miners, ‘State Regulation of Prostitution in Hong Kong’.

⁸⁷Watts, *The Commission of H.M.S. Retribution*, 98.

conductive to contagious diseases. Heat and the presence of mosquitoes were generally singled out as the most likely causes of illness on a foreign station.⁸⁸ Furthermore, stations with large areas of dock workers living in close living quarters, such as Simon's Town, were especially susceptible to disease epidemics.⁸⁹

What is clear from these sources is that the presence of a mobile maritime community at these stations not only influenced the experience of sailors while on leave but also facilitated the spread of diseases. Although the use of quarantine at stations could be effective against some diseases, the nature of the movements of naval ships meant that diseases would often spread from station to station. Indeed, the demand for labour at coaling stations often created the perfect conditions for epidemics to occur, as labour forces were often housed in cramped conditions.⁹⁰ Furthermore, the widespread use of prostitutes throughout British coaling stations worldwide aided the spread of venereal disease, not just between naval men, but into the local and domestic populations. Whereas measures were instated for the benefit of naval men, little was done to protect local populations. Instead, diseases were often blamed on them. Such actions not only reinforce the idea that British concepts of racial- and gender-ordered hierarchies existed at these stations, they also show the view that local peoples were seen as merely being there to service naval needs.

EXPLORING THE STATION

Sailors not only experienced and explored “exoticism” and “otherness” through stations’ indigenous populations, they also did so through surrounding landscapes, tourism, and contemporary culture. Records created by those who visited stations show that stations became

⁸⁸ British Parliamentary Papers, 1870 (202) *Navy (Health) for the Year 1868*.

⁸⁹ Christopher C. Saunders, ‘Mozambickers: The Immigration of an African Community to the Western Cape 1876–1882’, in C.C. Saunders and H. Phillips (eds), *Studies in the History of Cape Town* (Cape Town: The Department, 1979), 129; B.B. Brock, B.G. Brock, and H.C. Willis, *Historical Simon's Town* (Cape Town: A.A. Balkema, 1976), 46.

⁹⁰ For a history of the spread of contagious disease across maritime spaces, see M. Harrison, *Contagion: How Commerce Has Spread Disease* (New Haven, CT: Yale University Press, 2013); Alison Bashford (ed.), *Quarantine: Local and Global Histories* (Basingstoke: Palgrave Macmillan, 2017).

synonymous with certain attractions, whether they were parts of the landscape, religious, ancient, or royal, and accounts of visits to these stations suggest that there was often a loose itinerary that visitors would follow. Furthermore, if they were at a station at the right time of year, crews could attend the religious, cultural, and sporting festivals, for which some stations were famous. Such an itinerary and cultural calendar suggests a body of knowledge that existed at these stations and was disseminated across sailors of all nationalities.

Visits to these attractions were generally small-group affairs demarcated along the lines of rank but not always nationality. Although usually visits were made with fellow men of the Royal Navy, just as British seamen joined their foreign counterparts in the sporting and social activities they also accompanied other naval men as tourists. At Sydney, for example, some of the officers of the *Challenger* travelled to the Blue Mountains from Sydney with German officers.⁹¹ Similarly, at St. Helena sailors explored the island with the crew of a French warship and seemingly found it a pleasant experience: "We common Jacks found the Frenchmen splendid fellows, ready to hob-nob with us to our hearts content."⁹² These visits indicate an encompassing enthusiasm from sailors for the exploration of local sights at these stations and furthermore to do so with those of other nationalities present in the maritime community. Although it is not within the scope of this chapter to explore the unique attractions of each naval station, it seeks to provide some examples that show the extent of interests held by sailors.

British men often sought out the historic and cultural sights that made each station unique. A fascination with ancient oriental civilisations meant that those on the China Station would take the opportunity to visit the ancient temples and other religious sites. These remnants of past civilisations were visited throughout the station: Hong Kong and Shanghai had many famous temples, and Nagasaki was well known amongst visitors for its many thousands of Buddhas.⁹³ At Kobe, sailors would make a journey to Kyoto where they would be shown around

⁹¹Spry, *The Cruise of Her Majesty's Ship Challenger*, 125–130.

⁹²Noble, 'Tween Decks in the Seventies', 165; Dunslow and Jones, *The Commission of H.M.S. Eclipse*, 45–47.

⁹³Anning, Bentley, and Yexley, *The Log of H.M.S. Argonaut*, 25, Butterworth, *The Commission of H.M.S. Glory*, 8–9.

the Buddhist temples, Mikado Palace, and Shinto shrine.⁹⁴ Interest in the Far East also extended to its contemporary culture. The crew of the *Sutlej* were treated to a garden party at the Kyoto Nanko temple where they witnessed wrestling, ju-jitsu, sword dancing, and fencing, and at Osaka they were entertained by geisha girls and Japanese theatre.⁹⁵ Because the author of the log, G.H. Gunns, is not included in the accompanying list of officers, it seems that this was a party that included even lower ranks of the crew. British sailors also experienced traditional Hong Kong musical theatre, although few appear to have been impressed with one suggesting “melody there is none.”⁹⁶

This enthusiasm was also present at Bombay, where a sailor recalled that “all hands are looking forward to visiting Bombay and to going to see the sights of the old city.”⁹⁷ His diary provides detailed descriptions of ancient caves, almost certainly those at Elephanta, which held religious significance. Dedicated to the “eternal feminine” and decorated with carvings of women, he records his amazement at the size of some up to 35-feet high.⁹⁸ Interestingly, this visit was a party of both petty officers and ordinary ratings.⁹⁹ Also popular was the Zoroastrian Tower of Silence, where their dead were left for the vultures to consume.¹⁰⁰ Both show a fascination in the ancient and “exotic” religions of India, although it is notable that many accounts mention that the most impressive things to see were built by the British. As Mr. Dicks recorded, “Bombay is a magnificent city with the most marvellous railways station in the world also grand hotels, flowers and zoological gardens where

⁹⁴Breaks, *The Log of H.M.S. Bonaventure*, 85.

⁹⁵Gunns, *The Log of H.M.S. Sutlej*, 113, 114, 119.

⁹⁶Spry, *The Cruise of Her Majesty's Ship Challenger*, 193–201.

⁹⁷Diary of A.C. East, H.M.S. *Natal* on its Cruise to India as escort to Royal Visit, 1 December 1911, National Museum of the Royal Navy, Manuscript Collection, 95/90 (28).

⁹⁸Diary of Petty Officer Lew Hanbridge, H.M.S. *Philomel*, 13 January 1916, British Library, MSS. Eur.C.172; Diary of A.C. East, H.M.S. *Natal* on its Cruise to India as escort to Royal Visit, 27 December 1911, National Museum of the Royal Navy, Manuscript Collection, 95/90 (28).

⁹⁹Diary of Petty Officer Lew Hanbridge, H.M.S. *Philomel*, 6 January 1916, British Library, MSS. Eur.C.172.

¹⁰⁰Ibid.

abound all kinds of native fruit.” When he later visited again, he returned to the zoo, museum, and exhibition.¹⁰¹

Sailors on the Mediterranean Station sought out religious and historic buildings and monuments, particularly in Malta. The log of the *Implacable* suggests that Valetta’s “chief features may be summed up in four words—steps, holy-stones, bells, and goats.”¹⁰² The churches, and especially the Chapel of Bones, were frequently visited, and processions during religious festivals generally added colour to a stay there.¹⁰³ Of particular interest was the *Citta Vecchia*, the ancient capital just a few miles from Valetta. Here were the cathedral, catacombs, and a spectacular view of the whole island.¹⁰⁴ Stopping to coal at Piraeus allowed visits to Athens, where ships’ crews could immerse themselves in ancient history by visiting ancient monuments such as the Acropolis as well as the museum.¹⁰⁵

For some coaling stations there was nothing but criticism, although these tended to be those on and around the Suez Canal, where little of cultural interest to the British sailor was to be found. Mr. Dicks, for example, suggested, when at Port Saïd, that he could not “say much about it as it is very dirty and swarmed with natives ... it is the most immoral place in the world.” He held little back in his description of Aden, either, which he dismissed as “a very desolate place.”¹⁰⁶ Sailors rarely spent any time in these places, however, because once coaled there was rarely leave given, with ships instead moving on to their next destination. Where there was ample time, however, and the port itself was uninteresting or there was a major city or attractions further afield, sailors often left the confines of the station, frequently in large groups, and used whatever local transport was available to reach the sites. Especially after 1890, this often involved a train, including between Woosung and Shanghai, Kobe

¹⁰¹Diary of Mr. Dicks of H.M.S. *Proserpine*, Royal Naval Museum, Manuscript Collection, JC 68 100/79 (2), 66, 86.

¹⁰²Parker, *The Commission of H.M.S. Implacable*, 7.

¹⁰³Journals of Donovan C. Roe, 1911–1912, NMM, JOD/92/2; Brown, *The Log of H.M.S. Repulse*, 16.

¹⁰⁴Parker, *The Commission of H.M.S. Implacable*, 9.

¹⁰⁵Ibid., 36; Wheeler, *The Commission of H.M.S. Pandora*, 25–28.

¹⁰⁶Diary of Mr. Dicks of H.M.S. *Proserpine*, Royal Naval Museum, Manuscript Collection, JC 68 100/79 (2), 19, 29.

and Osaka, Piraeus and Athens, Callao and Lima, and Simon's Town and Cape Town.¹⁰⁷ A train also took sailors to the Royal Navy camp in the mountains at Diyatalawa from Colombo.¹⁰⁸ On the Australian Station, naval men were given free railway passes suggesting that they were being actively encouraged to visit and explore local towns and cities.¹⁰⁹ Likewise, if they were granted enough leave while at Yokohama, sailors could catch the train to Fukyama (Mount Fuji) where they could feel the tremors of earthquakes.¹¹⁰ At Hong Kong, a cable tramway—"one of the finest in the world."¹¹¹—would take visitors to a view of the highlands and islands. Similarly, trams connected Esquimalt with Victoria and Yokohama with Tokyo.¹¹² By the 1890s, a fashion for cycling had swept through the Royal Navy, and sailors enjoying leave in Japan, often in large groups, would explore the countryside on bikes. The log of the *Grafton* recalls how 70 or 80 bluejackets explored the area surrounding Yokohama by bike, many for the first time, and caused chaos by hitting walls and colliding with rickshaws.¹¹³ Crew members would also experiment with local methods of transport. In Colombo and Durban, for example, men would take a rickshaw.¹¹⁴ In Osaka, they used jinrikisha, the main mode of transport there, which consisted of a two-wheeled vehicle pulled by two men, or used sampans, traditional Japanese boats.¹¹⁵

¹⁰⁷ Gunns, *The Log of H.M.S. Sutlej*, 140; Butterworth, *The Commission of H.M.S. Glory*, 15; Wheeler, *The Commission of H.M.S. Pandora*, 25–28; Breaks, *The Log of H.M.S. Bonaventure*, 10; Journals of Donovan C. Roe, 1911–1912, NMM, JOD/92/2.

¹⁰⁸ Diary of Mr. Dicks of H.M.S. *Proserpine*, Royal Naval Museum, Manuscript Collection, JC 68 100/79 (2), 46.

¹⁰⁹ See for example John S. Shearston, *H.M.S. Nelson: An Account of Her First Commission on the Australian Station* (Sydney: Thomas Richards, 1885).

¹¹⁰ *Ibid.*, 24.

¹¹¹ A.E. Butterworth, *The Commission of H.M.S. Glory, Flag Ship of Commander-in-Chief, China Station, 1900–1904* (London: Westminster Press, 1904), 5–6.

¹¹² Newton, *The Commission of H.M.S. Grafton*, 19; Brodie, Ray, and Yexley, *The Log of H.M.S. Goliath*, 103.

¹¹³ Gibbs, *The Cruise of H.M.S. Grafton*, 53–54; Butterworth, *The Commission of H.M.S. Glory*, 14. Articles about cycling became frequent, for example, in *Navy and Army Illustrated*.

¹¹⁴ Gunns, *The Log of H.M.S. Sutlej*, 23; Journals of Donovan C. Roe, 1911–1912, NMM, JOD/92/2.

¹¹⁵ Butterworth, *The Commission of H.M.S. Glory*, 15.

LANDSCAPE

Once outside the towns and cities, the natural surroundings of a station provided areas in with to explore, study, and hunt, and seamen took these opportunities at almost all stations. This fascination with foreign landscapes shown by sailors was something of a naval tradition going back centuries. Although this most famously included observations made by those on official survey ships, explorers, and surveyors, there was a rich tradition of ordinary crew members recording the physical landscapes of stations. Furthermore, a fascination with “nature is central to ... Victorian travelogues” more generally. Although exotic plants could be found in a city, it is hardly surprising that naval men were keen to explore beyond the urban areas and shoreline and into the hinterland.¹¹⁶

Often these natural spaces outside of the ports would be attained on foot. To avoid the “rather uninteresting” Jamestown, sailors at St. Helena would trek into the countryside where they enjoyed the large variety of plants and breeze of the mountains.¹¹⁷ Also mountainous, the Seychelles possessed extraordinary vegetation and were, according to Donovan C. Roe, “one of the prettiest places we have visited on the station.”¹¹⁸ Less extreme, but no less beautiful, were the surrounds of Hobart, which possessed “lovely hills, covered with gardens and orchards.”¹¹⁹ In the same way, Zanzibar was celebrated for its impressive flowers, and Simon’s Town was particularly noted for its sunsets and Table Mountain.¹²⁰ The environment of a station was also linked to a sailor’s well-being, and thus, although Ascension Island “may be dull,” it was “reasonably healthy.”¹²¹ Sailors at Bombay, looking to escape the searing heat, were often allowed to go to a health resort in Ghat hills at Khandala—one of the hill stations—where the “scenery [was] grand.”¹²²

¹¹⁶William Beinart and Lotte Hughes, *Environment and Empire* (Oxford: Oxford University Press, 2007), 91, 163–164.

¹¹⁷Journals of Donovan C. Roe, 1911–1912, NMM, JOD/92/2.

¹¹⁸Ibid.

¹¹⁹Shearston, *H.M.S. Nelson*, 22.

¹²⁰Journals of Donovan C. Roe, 1911–1912, NMM, JOD/92/2.

¹²¹Journal kept by Edward Charrington, 1894–1898, National Museum of the Royal Navy, Manuscript Collection, 1999/51/5.

¹²²Diary of A C East, H.M.S. *Natal* on its Cruise to India as escort to Royal Visit, 28 December 1911, National Museum of the Royal Navy, Manuscript Collection, 95/90 (28).

When on leave at Colombo, naval men similarly went to Diyatalawa—a Royal Navy camp in the mountains—where “being very hilly it is picturesque to see the lovely natural waterfalls. Also pineapple in full fruit and several different things too numerous to mention.”¹²³ One particular plant was of certain interest to the sailor in Ceylon, though. Stopping at Colombo gave them the opportunity to visit Lipton’s tea gardens to see how tea is made. Such visits produced intense fascination, which was exemplified by the detailed explanations of the process produced.¹²⁴ Such visits helped to “cement” the cultural connection between imperial produce and exotic through physical encounter in ways that public exhibitions and popular culture could not. These encounters being recorded in letters, diaries, and published accounts furthermore acted to connect even those at home with these imperial landscapes.

It was not just the striking scenery surrounding many of the stations that fascinated seamen. Further evidence of the interest of ships companies’ in the exotic was found in textual and visual recordings of the local wildlife, in particular the many references made to the more extraordinary animals such as the whales at Simon’s Town or the sharks at Fiji and Suez.¹²⁵ Stations such like Cape Coast Castle offered ample opportunity to see wild animals such as crocodiles, lions, and zebra as well as natural events, such as turtles laying their eggs on a beach. Similarly, at the French Station at Cape Lopez, Gabon, the sailors viewed elephants, buffalo, parrots, and gorillas.¹²⁶ Those given leave at Colombo would often see elephants, and Colon in Panama was infested by alligators.¹²⁷ Within Beacon Hill Park at Esquimalt there were two bear pits, “which contain five bears of the grisly species” that could be viewed from a safe

¹²³Diary of Mr. Dicks of H.M.S. *Proserpine*, Royal Naval Museum, Manuscript Collection, JC 68 100/79 (2), 46.

¹²⁴Ibid., 59.

¹²⁵Journals of Donovan C. Roe, 1911–1912, NMM, JOD/92/2; Callow, *The Commission of H.M.S. Royal Arthur*, 74–76; H. Furneaux, *The Log of H.M.S. Diana, Mediterranean Station, 1904–1906* (London: Westminster Press, 1907), 94–95.

¹²⁶Journal kept by Edward Charrington, 1894–1898, National Museum of the Royal Navy, Manuscript Collection, 1999/51/5. The journal later reports that a hunting trip killed three buffalos.

¹²⁷Crowe, *From Portsmouth to Peking Via Ladysmith with a Naval Brigade*, 90; Watts, *The Commission of H.M.S. Retribution, 1902–1904*, 163.

distance.¹²⁸ Once again, such experiences were key to the shaping of the domestic imagination of the imperial, thus augmenting those other encounters of exotic animals through zoos, circuses, and literature, which were increasingly popular during this period.¹²⁹

Sailors did not always remain as passive spectators of the wildlife, and many seamen collected exotic animals and kept them aboard. Although some were collected for specific scientific missions, and some to sell to zoos and pet shops, many were simply adopted as pets and mascots. Buying them from local traders, the animals would become a part of the shipboard life and were often then distributed amongst the fleet at the end of its commission, thus emphasising continuity at the station.¹³⁰ The most common of these pets were exotic birds, which could easily be taken home with the sailors after the commission.¹³¹ The log of the *Implacable* records that two to three hundred birds were purchased at Malta; the *Bonaventure* adopted 104 canaries, a parrot, and five parakeets; and the *Encounter* brought home more than fifty parrots.¹³² Also common, depending on the stations visited, were monkeys, dogs, and cats.¹³³ A more bizarre but relatively common pet was the mongoose, which was ideal for catching the cockroaches and rats on board.¹³⁴ Surprisingly, these were not the strangest animals taken aboard; others included donkeys, squirrels, hawks, and eagles.¹³⁵

Some stations became synonymous with animals. In such cases, these mascots were clearly more than just company but also a powerful connection to the station. At Esquimalt, it was common to adopt a black bear cub.¹³⁶ Similarly, in the Falklands, one ship adopted penguins as

¹²⁸Breaks, *The Log of H.M.S. Bonaventure*, 15.

¹²⁹See, for example, Takashi Ito, *London Zoo and the Victorians, 1828–1859* (Woodbridge: Boydell and Brewer, 2014).

¹³⁰Gibbs, *The Cruise of H.M.S. Grafton*, 140.

¹³¹Dougherty, *The East Station*, 19.

¹³²Breaks, *The Log of H.M.S. Bonaventure*, 118; Parker, *The Commission of H.M.S. Implacable*, 104; Fowler, *The Log of H.M.S. Encounter*, 118.

¹³³Wheeler, *The Commission of H.M.S. Pandora*, 54.

¹³⁴Noble, 'Tween Decks in the Seventies', 92–93.

¹³⁵Parker, *The Commission of H.M.S. Implacable*, 104; Newton, *The Commission of H.M.S. Grafton*, 135, 201.

¹³⁶Newton, *The Commission of H.M.S. Grafton*, 91.

pets.¹³⁷ Malta was popular for adopting goats, an animal with which it was synonymous, and many servicemen referred to the Maltese as “goats.”¹³⁸ Many of those emanating from shores beyond Britain became signifiers. They represented the stations or people from which they came, thus acting as important indicators of the strength and depth of British power overseas as well as the otherness of the vast swathes of imperial possessions. A gift of a mascot from a foreign ruler, such as the Sultan of Muscat, reinforced both an alliance and Britain’s global power. Similarly, exotic animals, such as the monkeys attained from Mombasa, highlighted the global nature of Britain’s navy and empire. Yet whilst these were important cultural symbols for those involved, more important was the dissemination of images and tales of pets as well as their presence in zoos and pet shops. Viewing them through the lens of textual and visual descriptions—sketches and photographs—or in cages far from their natural habitat, for many who had never left Britain they were a physical reminder of Britain’s global power and its dominion over many strange and tropical lands. As such, viewing these animals formed “exotic imaginations” of the empire, reinforced its connection with the navy, and reduced the animals, their homelands, and arguably their populations to being unchanging, “exotic, distant and other.”¹³⁹

CONCLUSIONS

An integral part of leave at a coaling station, particularly for bluejackets, was an immersion in that place’s indigenous populations, cultures, unique sights, landscapes, and fauna. Such experiences were widely recorded in diaries, in published accounts, and through sketches and photographs, many of which were widely disseminated at home. The ways in which stations and their populations were depicted largely fitted a wider pattern of seeing imperial spaces, and the populations, landscapes, and fauna that resided in them as exotic and other. This impression may have been influenced by an existing view of empire, but

¹³⁷Noble, ‘*Tween Decks in the Seventies*’, 229.

¹³⁸Many servicemen referred to the Maltese as goats. See Brown, *The Log of H.M.S. Repulse*, 6.

¹³⁹See, for example, Kirsten Greer, ‘Geopolitics and the Avian Imperial Archive: The Zoogeography of Region-Making in the Nineteenth-Century British Mediterranean’, *Annals of the Association of American Geographers*, 103, 6 (2013), 1317–1331.

it also helped to augment it in implicitly confirming the trope. Whilst in many cases this meant that populations at many stations became merely backdrops for sailors on leave—of interest but unchanging—at some stations otherness was to be abused and denigrated. In these cases, indigenous populations became seen, and projected, as a backward and uncivilised blight on the exotic landscape of empire. These attitudes, which were in tune with wider ideas about non-white populations—that at best they lacked an aspiration to “civilise” and at worst were unable to do so—litter accounts of naval life abroad.

Yet, even when populations were seen as being racially subordinate to the British and something to be despised, this did not prevent them from being of use to naval men with many providing essential services such as washing, supplies, or entertainment. This relationship was symbiotic with many naval ports relying on the sailors’ wages to survive. Much as indigenous heavers were viewed as tools that were of use only to coal, many indigenous peoples were seen in similar terms when the sailor was on leave. Perhaps this view was most obviously expressed with the use of indigenous women for sex. Initiatives to decrease the incidence of venereal diseases not only degraded the prostitute but fitted a wider pattern of viewing them as hyper-sexualised and at fault for the spread of disease. Whilst they were seen as crucial to satiating the carnal urges of the sailor, if damaged by disease they were to be discarded until they no longer posed a risk to the health of servicemen.

Yet the issue of prostitution also shows divisions within the navy itself. Measures to decrease infection rates may have been designed with no one but the bluejacket in mind, but they also showed officer prejudices against the lower deck, who saw these men as animalistic with insatiable desires that had to be met. In the same way as officers saw violence as a natural part of the essence of the working-class sailor, attitudes toward the use of prostitutes reveals a belief that to deny these child-like, carnal urges would invite insurrection.

This part of the book has therefore shown interactions made by sailors whilst sojourning at the station, particularly highlighting the disparity between those within, and those outside, the “western” maritime communities, thus reflecting inherent power relations and projections of power. In analysing the ways in which station’s indigenous peoples, cultures, and physical landscapes were viewed by sailors, it is clear that these were seen as exotic “possessions” that could be gazed at, abused, or even removed. These collective experiences helped to cement ideas of a

homogenous otherness and backwardness in the colonial empire, which, through the dissemination of accounts and images, left an imprint on the domestic imperial imagination.

Epilogue

The period where coal alone was the fuel of choice for state-of-the-art British warships was relatively short lived, lasting less than half a century. Yet the shift from sail power to steam power had global ramifications as this book has shown. Furthermore, the Royal Navy faced its biggest challenge in a century, the First World War, with a largely coal-fuelled fleet.

Preparations made before the war to ensure supply to the fleet paid dividends when war broke out. Fears about early issues with “bedding in” were largely assuaged by the instigation of the Railway Executive Committee, which gave the navy priority on the railways. This is not to suggest that wartime supply was without issue, however. As Brown showed, assumptions made by the Admiralty before the war about both labour and colliers would cause a constant headache throughout the war. The mass enlistment into the armed services of many of those employed in the coal industry caused a labour shortage, but being “at the head of the queue, [the navy] was never in any danger of running out” of fuel.¹ Supply of colliers caused more issues. Although the navy held priority on the collier fleet, Britain’s commitment to its allies, as well as heavy losses, meant that acquiring sufficient transport to move coal was often difficult.

¹Warwick Michael Brown, ‘The Royal Navy’s Fuel Supplies 1898–1939: The Transition from Coal to Oil’ (PhD Thesis, King’s College London (University of London), 2003, 133.

Intelligence about German-fleet movement, provided by the NID, did offer some respite because it allowed the fleet to maintain a lower state of readiness, thus decreasing consumption considerably. Although it did not completely alleviate the issues, it did allow the Admiralty to nearly halve the number of colliers serving the Grand Fleet by November 1917.²

The pre-war aptitude of naval labour in coaling also helped the efficiency of the fleet even if the requirement to leave patrols to return to fuel was far from ideal. Throughout the war, rates of upwards of 200 tons per hour were common, meaning that few ships spent lengthy times coaling. Indeed, the battlecruiser *Indomitable* averaged more than 400 tons per hour and set a benchmark of 474 tons per hour.³ The result of pre-war plans and experience meant that despite problematic assumptions made by the Admiralty, the Grand Fleet was “outstandingly effective”⁴ in coaling.

The robustness of Britain’s fuelling situation was in contrast to those of its enemy, Germany. Its inability to access Welsh coal, on which it had relied in peacetime, meant that it was consigned to using coal from Westphalia, which was of variable quality and never as good as Welsh. Whilst it was able to raid some colliers for Welsh coal, this was an exception on which it could not rely. In fact, it was only because of the excellence of the steam departments onboard and the brevity of high-speed encounters that Germany did not face disastrous implications as a result of its fuelling situation. Even so, as Goldrick suggests, it was “a near-run thing.”⁵

The navy may have continued to rely on coal beyond the First World War, but oil’s rise from a promising alternative to the fuel of the future was swift.⁶ King Coal faced increasing pressure from the young

² Brown, *The Royal Navy’s fuel supplies*, 116–118.

³ James Goldrick, ‘Coal and the Advent of the First World War at Sea’, *War in History*, 21, 3 (2014), 322–337.

⁴ Brown, *The Royal Navy’s fuel supplies*, 121, 132.

⁵ Goldrick, ‘Coal and the Advent of the First World War at Sea’, 322–337.

⁶ R.H. Walters, *The Economic and Business History of the South Wales Steam Coal Industry, 1840–1914* (New York: Arno Press, 1977), 323; D.A. Thomas, *The Growth and Direction of Our Foreign Trade in Coal During the Last Half Century: Read before the Royal Statistical Society, 19th May, 1903, and Extracted from the Issue of the Society’s Journal for Sept. 1903* (London: Royal Statistical Society, 1903), 55–56; British Parliamentary Papers, 1905 [Cd. 2353], *Royal Commission on Coal Supplies. Final report of the Royal Commission on Coal Supplies. Part I. General report*, 21.

pretender, “Prince Petroleum.”⁷ In 1896, it was expected that “it will be a long time before good Welsh coal is superseded in the British navy,” and in 1903, oil was still only being tested. However, by 1904 all new destroyers were exclusively oil-fuelled, all new cruisers by 1911, and battleships by 1912.⁸ Thus, although it was not an overnight process, it was clear that the future of the Royal Navy lay with oil.⁹ Indeed, whilst much of the fleet at the outbreak of war was coal-burning, the majority of those built after 1914 were powered by oil. The effect of this was that the Grand Fleet included 66 warships fuelled solely by oil and 66 dual-fired warships by November 1915. Such was the rate of adoption that oil consumption by British warships had increased fourfold by 1918.¹⁰ By the end of the war, the Grand Fleet’s maximum oil capacity exceeded that for coal.¹¹

Britain had begun to experiment with oil as early as the 1890s following the lead of the Italian and US Navies.¹² An early supporter of the shift to oil, Jackie Fisher wrote in 1902, “It is a gospel fact ... that a fleet with oil fuel will have an overwhelming strategic advantage over a coal fleet.” Fisher admitted with pride that he was known as an “oil maniac” as early as 1886.¹³ In 1912, Fisher was appointed chairman of the *Royal Commission to Enquire into Liquid Fuel* with a view to converting the entire fleet to oil. Classified “secret,” Fisher’s Commission reported on 27 November 1912 with two following reports on 27 February 1913 and 10 February 1914. The reports opined that “the fighting advantages of oil render its adoption as Navy fuel an absolute necessity.” This, it was argued, was because if oil was “used in place of coal the strength

⁷ ‘A Second String’, *Punch*, 10 April 1912.

⁸ Jon Tetsuro Sumida, ‘British Naval Operational Logistics, 1914–1918’, *Journal of Military History*, 57, 3 (1993), 461.

⁹ ‘What The World Says’, *Derby Mercury*, 30 December 1896; British Parliamentary Papers, 1904 [Cd. 1991], *Royal Commission on Coal Supplies. Second report of the Royal Commission on Coal Supplies. Vol. II. Minutes of evidence and appendices*, 143–155; Martin Gibson, ‘British Strategy and Oil, 1914–1923’, PhD Thesis, University of Glasgow 2012, 33.

¹⁰ Brown, *The Royal Navy’s fuel supplies*, 133, 136.

¹¹ Sumida, ‘British Naval Operational Logistics, 1914–1918’, 462.

¹² ‘Experiments in ships using liquid fuel’ can be found in ADM 265/26.

¹³ Dahl, ‘Naval Innovation’, 52; Daniel Owen Spence, *A History of the Royal Navy: Empire and Imperialism* (London: I.B. Tauris, 2015), 82.

of the British Fleet is indirectly increased, whilst the strength of the fleets of other Powers remains unaltered.” However, this came with an important caveat. The navy, it suggested, should not move to oil until the Admiralty had “secured the control of an adequate supply of the raw material.” Such a supply was “a supreme necessity. A deficiency might easily lead to disaster. Moreover, it would be suicidal to discard coal without providing for a certain substitute.” However, in secret evidence not contained in the report, the commission was told that this situation could be resolved. The only remaining issue, then, was that Britain did not have “necessary storage.” Unlike coal, however, oil would not deteriorate, so it could be stockpiled.¹⁴

The commission came to its conclusion for several reasons. The advent of steam turbines allowed oil-fuelled ships to reach greater speeds than those with coal-powered reciprocating engines as well as maintain them for extended periods. In the age of the submarine, this ability was crucial. Part of this was down to the manual nature of stoking, which simply could not compete with the efficiency of oil delivered mechanically. Moreover, removing the need to stoke, trim, and clear clinker from furnaces meant that the steam department in an oil-fired ship was also effectively half that of a coal-powered ship, thus saving money on manpower. Using oil as fuel not only saved labour in stoking, coal also required huge amounts of manpower to load, as described previously, whereas oil did not. According to Admiralty estimates, this allowed oil warships to be refuelled at “a rate 2.5–3 times that of coal.”¹⁵ Oil also offered significant advantages in terms of power and efficiency by allowing a 30–40% improvement compared with Welsh steam coal.¹⁶ Furthermore, oil allowed ships to be refuelled at sea, something deemed impractical with coal, meaning that ships were less shackled to fuelling stations.

Thus, oil power meant that ships could increase both the speed and flexibility of their mobility, thus offering them crucial advantages in

¹⁴“Material relating to the Oil Commission, The Papers of 1st Lord Fisher of Kilverstone”, FISR 6, Churchill Archives Centre.

¹⁵Goldrick, ‘Coal and the Advent of the First World War at Sea’, 322–337. Goldrick states that “the 1914 battlecruiser *Tiger* (with 39 boilers) had an engineering complement of 600 on coal and oil. By comparison, the post-war *Hood*, which could develop nearly half as much power again with 24 boilers on oil alone, had one of 300.”

¹⁶Sumida, ‘British Naval Operational Logistics, 1914–1918’, 461.

what was fast seeming like an inevitable war with Germany. Moreover, it meant that Britain could no longer be held ransom by coal strikes. Finally, with Britain already facing a relative decline as a world power, it is unsurprising that the Admiralty was keen to invest in cutting-edge technology. This final factor in particular led Britain to commit to an oil-powered navy amidst fears it would be left behind.¹⁷ Yet Britain did not have its own source of oil domestically or in its empire (at least not that had been discovered as viable), unlike the US, which was then the world's largest producer of oil. Thus, originally, it relied on the foreign owned Standard Oil and Royal Dutch–Shell oil companies. Looking to control its own fuel supply, however, it purchased a 51% stake in Anglo–Persian Oil, with wells in Iran in 1914, which included a secret contract to supply the Admiralty for 20 years, which had been a direct recommendation of Fisher's Commission.¹⁸

Although the Admiralty had assumed that there would be a race to adopt oil, this did not materialise, and by 1914 only the US and Britain had done so. Despite fears that Germany would adopt oil to power its warships, it did not develop an oil fuelled fleet as quickly as feared, and waiting until after the First World War, largely because it had no secure access to oil supplies.¹⁹ In fact, with the majority of the British fleet powered by coal, oil did not seem to be a deciding factor in the war. Indeed, fluctuation in oil prices meant that coal still represented a less economically risky option.²⁰ This is perhaps reflected in the relative fuel consumption of the fleet during the 4 years of war. Although oil provided more power (and thus less was needed for the same effect), that 41.7 millions of tons of coal were used, but only 9.1 million tons of oil, shows the reliance the First World War navy still had on Welsh coal.²¹

Yet with the clear tactical shift seen in the First World War, which saw the increased threat of both submarines and aircraft, it was clear that high speed cruising over considerable distances would be a necessary requirement for any fleet. The experience of the war, despite being

¹⁷Nuno Luís Madureira, 'Oil in the Age of Steam', *Journal of Global History*, 5, no. 1 (2010), 75–94.

¹⁸Gibson, 'British Strategy and Oil', abstract.

¹⁹Madureira, Oil in the age of steam, 88.

²⁰Dahl, Naval innovation, 54–55; Madureira, 'Oil in the age of steam', 86.

²¹Sumida, 'British Naval Operational Logistics, 1914–1918', 471.

largely fought close to home stations, suggested that coal power could not provide the Royal Navy with that attribute. The strain was simply too great both on ships' machinery and crews, and this would only be magnified in more far-flung waters. It was also clear that, given Germany's predicament without a supply of Welsh coal any potential enemy of Britain would draw the same conclusions and develop an oil-fuelled navy.²²

Yet such conclusions do not sufficiently give justice to the multiple issues that were caused by a switch to oil.²³ Before 1914, oil fuel use was almost totally confined to the navy, meaning that Britain neither had the global seashore storage, nor the infrastructure, to supply them.²⁴ As such, it was widely recognised at the time that adopting oil under such circumstances represented a huge risk, not least because Britain was abandoning its control of quality coal and its export infrastructure in order to adopt oil.²⁵

It did not take long for the wisdom of using oil to be questioned. By January 1917 oil prices had increased tenfold from the beginning of the war.²⁶ This did not only mean it was expensive, but also reflected that it was in short supply. Britain also lacked the capacity in its merchant fleet to transport large amounts of oil, and this situation was exacerbated by the regular sinking of tankers.²⁷ By 1917, this shortage had precipitated a major oil crisis for Britain. The Colonial Secretary, Walter Long, recognised the serious peril the navy faced: "you may have men, munitions, and money, but if you do not have oil, which is today the greatest motive power that you use, all your other advantages would be of comparatively little value."²⁸ The situation was not allayed even with the rationing of fuel and the use of more efficient cruising speeds. Rejecting a wholesale change of direction in fuel policy with the re-adoption of coal power for new warships, Britain was forced instead to turn to the American

²²Goldrick, 'Coal and the Advent of the First World War at Sea', 322–337.

²³See, for example, Dahl, *Naval innovation*, 50–56; Gibson, *British strategy and oil*; Brown, *The Royal Navy's fuel supplies*.

²⁴Brown, *The Royal Navy's fuel supplies*, 134.

²⁵Madureira, 'Oil in the age of steam', 89–90.

²⁶Brown, *The Royal Navy's fuel supplies*, 137.

²⁷Sumida, 'British Naval Operational Logistics, 1914–1918', 464.

²⁸Cited in Timothy C. Winegard, *The First World Oil War* (Toronto: University of Toronto Press, 2016), 102.

company Standard Oil and Royal Dutch Shell oil for supply. As a result, the Shipping Comptroller argued that “it is obvious that we are entirely dependant on the United States for the mobility of our Navy.”²⁹

In his own memoirs, which famously present him in a positive light, Churchill admitted to the oil, a shift he had argued strongly for. He describes the shift as “a formidable decision” as “the oil supplies of the world were in the hands of vast oil trusts under foreign control.” For this reason, in a matter of years, Britain and the USA’s relative naval fuelling situation had been reversed. With its own supply of oil, the US Navy no longer faced the fuelling difficulties made obvious by the Great White Fleet. Britain still had a huge fleet, but relied on oil from outside its control.³⁰ It also had wider geopolitical implications. As has been well covered in other studies, the need for oil led to those leading powers without their own sources to use political means to seize supplies across the globe.³¹ This would, of course, have major ramifications in the Middle East.³² Britain’s demand was such that, more than any other nation, its “decision triggered a chain of events that made oil the cause of world disputes.”³³

This book has shown how the need to frequently refuel at stations across the globe led to the common presence of British warships in harbour, and sailors in far-flung ports and their environs. The effects of a shift to oil power were variable in terms of the Royal Navy’s global presence. Although the interwar navy was largely powered by oil, which precipitated lengthier periods between refuelling, warships would still usually refuel at “the Empire’s numerous ports and anchorages.” This was despite the much-promoted advantage of oil allowing fuelling at sea, something that remained far “down the list of the Navy’s priorities.” Yet,

²⁹Maclay to Hankey, 13/8/1917, TNA, ADM 116/1804. Cited in Brown, *The Royal Navy’s fuel supplies*, 246.

³⁰Madureira, ‘Oil in the age of steam’, 90.

³¹*Ibid.*

³²For an in-depth study of the effects of the change to oil on the Middle East, see Gibson, *British strategy and oil, 1914–1923*; Martin Gibson, *Britain’s Quest for Oil. The First World War and the Peace Conferences* (Solihull: Helion, 2017). For a study of the transformation of oil into a geostrategic commodity, see Madureira, ‘Oil in the age of steam’. The geopolitics of oil are perhaps most famously discussed in Daniel Yergin, *The Prize: The Epic Quest for Oil, Money, and Power* (New York: Simon & Schuster, 1990).

³³Madureira, ‘Oil in the age of steam’, 90.

the requirement for expensive storage tanks, and the lack of oil tankers, meant that this tended to be centred round major stations. In European waters, therefore, the major coaling stations, Gibraltar and Malta, had huge oil reservoirs installed, allowing British warships to refuel in harbour. Thus, British warships, and their companies, could still be regularly found on leave in these places. The buying up of commercial oil tanks also led to ships refuelling in new locations, such as Haifa.³⁴

Outside of Europe, however, the story was quite different. The end of the First World War saw the British Empire expand territorially to its largest extent, yet retrenchment in the navy as a result of huge war debts meant that Britain's days as a global superpower were numbered. With domestic issues and a crippled economy, juxtaposed with a war weary population, governments cut defence budgets in order to fund their priorities. In doing so, as Ashley Jackson has argued, "Britain's naval power had to be crippled, and its Empire fundamentally weakened."³⁵ Increasingly unable to support its global interests and, with little interest from the Dominions to form an Imperial navy, few ships were available to be sent to the wider empire.³⁶ Furthermore, oil supply and storage proved problematic. Although the oil in Persia and Burma meant that the Indian Ocean proved less of an issue, the China Station, so important in the period under question, lacked storage facilities. This precipitated the building of the naval base at Singapore, which would not be ready until 1939.³⁷ A lack of oil coupled with slashed defence budgets meant that Britain was no longer able to exert influence in the Pacific post war.³⁸ Thus, although the Royal Navy could still be found across the globe in ports and stations, the need for oil and declining naval power reduced the frequency and numbers of, visits to many former coaling stations after the First World War. Moreover, the lack of large oil storage facilities, and the expense needed to construct them, meant that the breadth and diversity of station visits were not matched. This study therefore offers a unique snapshot of a very particular time and

³⁴Brown, *The Royal Navy's fuel supplies*, 228–230.

³⁵Ashley Jackson, *The British Empire: A Very Short Introduction* (Oxford: Oxford University Press, 2013), 11.

³⁶Daniel Owen Spence, *Colonial Naval Culture and British Imperialism, 1922–67* (Manchester: Manchester University Press, 2015), 17.

³⁷Brown, *The Royal Navy's fuel supplies*, 231–232.

³⁸Madureira, 'Oil in the age of steam', 90.

geography of encounter, that could only occur under specific circumstances: the era of the hegemonic coal-powered Royal Navy.

Having, for good strategic reasons, shifted to oil, Britain lost the advantage of its domestic fuel and global infrastructure. Britain still possessed the largest navy, but it no longer possessed the fuel with which to power it. No longer able to supply its navy on its own, Britain faced the complex negotiation of sourcing the fuel that made its naval power possible. Careful staging of naval theatre allowed the Royal Navy to project an image of a global force, but in reality, this was a thin veneer. The 1923 Empire Cruise of the Special Service Squadron was a successful public relations exercise, but, although not a disaster like the Great White Fleet, it said little for Britain's ability to refuel overseas in a war situation: fuel supply for the squadron was meticulously planned, and the cruise was at an economical 11 knots.³⁹

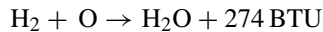
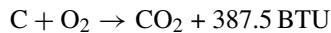
The reality was that control of naval fuel, its infrastructure, and its supply was something that Britain could no longer take for granted. Moreover, it lost the geopolitical power of being able to deny the highest quality fuel to others across the globe, something that had been crucial in Britain's maritime hegemony. As Churchill would proclaim as late as 1928, "we used to be a source of fuel; we are increasingly becoming a sink. These supplies of foreign liquid fuel are no doubt vital ... but our ever-increasing dependence upon them ought to arouse serious and timely reflection."⁴⁰

³⁹Bruce Taylor, *The Battlecruiser HMS Hood: An Illustrated Biography 1916–1941* (Barnsley: Seaforth Publishing, 2008), 70.

⁴⁰Imported Oils Duty, House of Commons Debate, 24 April 1928, Hansard, vol. 216, cols. 854–860.

APPENDIX A

Steam-coal was highly prized because of its high calorific value, which contemporaries measured in British Thermal Unit (BTU) per lb. BTU was defined as the amount of heat needed to increase the temperature of 1 pound of water from 60°F to 61°F. The calorific value of a fuel is dependent on its chemical makeup and is calculated using the following chemical equations:



By knowing the percentage of carbon, hydrogen, and oxygen in a specified amount of fuel, one is able to establish its calorific value. In general, fuels with a high calorific value have a high carbon percentage. Thus, Welsh steam with, on average, 92.5% carbon, was the pre-eminent solid fuel.

Solid fuel	C (%)	H (%)	O (%)	BTU per lb.
Cellulose	44.5	6.1	49.3	7500
Dry wood	50	6	44	8600
Peat	60	5.9	34.1	9000
Lignite (brown coal)	67	5.2	27.8	11,700
Bituminous coal	88.4	5.6	6	14,950
Welsh steam-coal	92.5	4.7	2.7	15,720

Where oxygen exists in a fuel in combination, a small amount is used in combustion, thus reducing overall heat produced in proportion. Welsh steam-coal has a lower oxygen percentage, which again increases its calorific value compared with other fuels. Unlike other solid fuels, it also contains minimal amounts of other elements, such as nitrogen and sulphur, or moisture. This not only increases its calorific value but also allows it to burn cleanly and consistently.¹

¹ B.K. Sharma, *Industrial Chemistry* (GOEL Publishing, 1997), 262–263; D. Möller, *Chemistry of the Climate System* (Berlin: De Gruyter, 2010), 203.

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