

Iron Lion or Paper Tiger? The Myth of British Naval Intervention in the American Civil War

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I

When it comes to the thought-provoking subject of foreign intervention in the Civil War, especially by Great Britain, much of the history has been more propaganda than proper research; fiction over fact. In 1961, Kenneth Bourne offered up a fascinating article on “British Preparations for War with the North, 1861–1862” for the *English Historical Review*. While focusing largely on the military defense of Canada during the *Trent* Affair, Bourne also stressed that Britain’s “position at sea was by no means so bad,” though he potentially confused the twentieth-century reader by referring to “battleships” rather than (steam-powered, sail, and screw-propelled) wooden ships-of-the-line, for example. This blurred the important technological changes that were certainly in play by 1861—and not necessarily in Britain’s favor. The Great Lakes the British considered to be largely a write-off as there were no facilities in place for building ironclads, much less floating wooden gunboats up frozen rivers and canals during the long winter season. American commerce and industrialization in the Midwest, on the other hand, had led to booming local ports like Chicago, Detroit, Toledo, and Cleveland—all facilitated by new railroads. Of course, Parliament had not seen to maximizing the defense of the British Empire’s many frontiers and outposts over the years. If anything, the legendary reputation of the Royal Navy continually undermined that imperative. That left the onus of any real war against the United States to Britain’s ability to lay down a naval offensive. And while Bourne was content to trust the judgment of an anonymous British officer in *Colburn’s United Service Magazine* that “1273 guns” were available to Vice Admiral Sir Alexander Milne’s North American and West Indies naval forces during the *Trent* crisis, the same publication also went on to warn its contemporary British readers that “in calculating the power of the Northern States at sea, we must not be deluded by the ships actually in existence, but must reckon on those that may be built.”¹ The author might have added that of the 86 guns of Milne’s flagship, HMS *Nile*, for example, or the 91 guns of the newer *Agamemnon* (launched in 1852 and reinforcing the British naval base at Bermuda from Gibraltar), no more than a third were 8-inch (65 cwt.²) shell-firing guns, the rest being 32-pounders in use since the Napoleonic era.³ In fact, the more deep-draft, screw-propelled ships-of-the-line the Admiralty dispatched to Milne, the more nervous he became. The 101-gun *Conqueror* ran aground in the Bahamas on December 13, 1861, a total loss. The British admiral pleaded for more shallow-draft paddle steamers, like those in use by the Union navy. Indeed, it was the lighter craft of the Yankees which proved better adapted for warfare in American waters.

After news of the Battle of Hampton Roads (March 8–9, 1862), when the Confederate ironclad ram *Virginia* sank two Union frigates but was then duelled to a stop by the turreted, iron-hulled USS *Monitor*, Milne was even more explicit. “If these ships of the line now here were cut up into small vessels, they would be of use to me, but except for Demonstrations clear of *Merrimac* and *Monitor*, they are no use. . . .”⁴ American warships were now all typically armed with 9-inch Dahlgren guns firing 90 lb. solid shot and 73 lb. exploding shells. These bounced off the *Virginia*’s sloping armored casemate yet quickly blew the USS *Congress* and USS *Cumberland* to pieces. “The monitors might therefore have played havoc with any attempt by the older [British] frigates to maintain close blockade,” Bourne also conceded.⁵ That left the Royal Navy only a “distant blockade” in the age of steam—a pointless endeavor before wireless communications—and high seas warfare against American shipping (while British commerce worldwide suffered in turn from steam-powered cruisers—like the CSS *Alabama*—emerging from Northern ports only loosely screened by British warships). Meanwhile Canada would be at the mercy of the United States Army.

This supports military historian Russell Weigley’s scorching conclusion that Palmerston’s naval arm of power diplomacy during the Civil War years “retained the appearance of maritime supremacy principally because it existed in a naval vacuum, with no serious rivals except for half-hearted and sporadic challenges by the French”:

At that, the British Navy would have had a difficult time making itself felt on the North American coast. The coming of steam power had destroyed the ability of its best warships to cruise indefinitely in American waters as the blockading squadrons had done in 1812. Even with a major base at Halifax, or possible aid from Confederate ports, the British Navy would have found it a precarious venture to try to keep station on the U.S. Coast. No steam navy operated with success against any reasonably formidable enemy at the distances from its home ports that a trans-Atlantic war would have imposed on the British fleet until the U.S. Navy fought the Japanese in World War II. . . . Palmerston surely knew enough about the military realities to sense the risk.⁶

Yet despite these awkward points, some naval historians today, such as Andrew Lambert, prefer to sustain the image of overwhelming British superiority at sea and a helpless Union in peril. Here, the Royal Navy “relied on a technologically advanced offensive maritime strategy” throughout the nineteenth century. This strategy had apparently won the war against Russia in 1853–55 (not the Siege of Sevastopol or the French army). Even the ramparts of Bermuda as a crucial rallying point for any British campaign against the United States during the Civil War are given a whitewash by Lambert, for the danger of a “pre-emptive strike by the United States,” he writes, “was averted by a continuous program of defensive improvements that made [it] a major imperial fortress.” Yet the listed source for this counterfactual assertion, Roger Willcock’s *Bulwark of Empire: Bermuda’s Fortified Naval Base 1860–1920*, rather confirmed that the defending ordnance “was inferior in type and weight to the armament mounted aboard foreign warships; furthermore, the Dockyard defense works were generally second-rate inasmuch as many structures had been erected independent of the system of fortification”; while the garrison at St. George’s was “so shrunk by manpower demands of the Crimean campaigns there was hardly sufficient personnel to serve properly even one of the fifty-odd guns of the coastal batteries controlling the North Shore Channel Passages.” Willcock was also candid—like Milne 100 years before—about the inadequacy of any imperial dockyard to repair modern steam warships. Gigantic ironclads like HMS *Warrior* could not be docked at all, and yet it was their iron hulls that needed cleaning more than wooden-hulled vessels. “Conceived in the days of sail [the Bermuda dock’s] equipment had not kept pace with changing times,” noted *Bulwark of Empire*, “the base had become an anachronism for in the 1860’s it was better suited to maintain a sailing squadron of the 1820’s than to service and support efficiently even a handful of steam-propelled ironclads.”⁷ Once again, after a closer analysis of British historical records, Lambert acknowledges that in fact the Royal Navy hoped for little more than a blockade of Northern ports even during the *Trent* crisis (i.e., when the Union had only been at war for eight months and its navy was still mobilizing⁸).

So we can also jettison the darkly imaginative speculations of alternate history, such as Jack Green and Alessandro Massignani’s *Ironclads at War*.⁹ To be sure, historical “what ifs” have their uses. But serious historical studies of the period—say, diplomatic ones—tend to assume British “naval supremacy” without closely scrutinizing what that term actually meant. A recent article in the *Canadian Journal of History* by Francis M. Carroll quotes Palmerston’s assurance to Queen Victoria during the *Trent* Affair at face value: “If the Federal Government comply with the demands it will be honourable for England and humiliation for the United States. If the Federal Government refuse compliance, Great Britain is in a better state than at any former time to inflict a severe blow upon, and read a lesson to the United States which will not soon be forgotten.” Further, Carroll cites British naval historian Andrew Lambert’s avowal that the global balance of power was all about the Royal Navy deterring major nation-states and empires who were periodically made to “acknowledge British strength.” What constituted this strength in 1861, Lambert ultimately claims, were “the resources for a sustained coastal offensive campaign, including over 200 gunboats, mortar vessels, ironclads, and floating factories and deport ships acquired in 1856, with new rifled guns.”¹⁰ That helps explain the *threat* of British naval intervention; but why ignore the equally documented threat of Union countermeasures? Since when was the Civil War all about what foreign powers would do to America? And if Palmerston possessed such a winning hand, why play at all? Why not *dictate* British interests instead of engaging in the tactful diplomacy over intervention, neutral rights, and vehement US charges of British aid to the Confederacy which certainly dominated the remaining years of the conflict in America? Carroll does well in also quoting Palmerston’s initial warning to Foreign Secretary Lord John Russell in 1861: “They

who in quarrels interpose, will often get a bloody nose.” So where were Lambert’s “coastal offensive resources” when the prime minister needed them? Even Amanda Foreman’s wildly successful narrative of Britain and the American Civil War, *A World on Fire: An Epic History of Two Nations Divided*, cannot reconcile *why* Palmerston seemed so keen to unleash the Royal Navy against the Northern states during the *Trent* Affair, but within a year repeatedly held back cabinet colleagues Russell and William E. Gladstone (traditionally a strong opponent to Palmerstonian foreign policies) from accepting a French proposal to “co-mediate” in America and bring an end to all the bloodshed—a question Lambert studiously ignores as well. Despite all the various political reasons offered up by Foreman and boastings of “supreme power” by Lambert, the critical factor explaining both ends of Palmerston’s foreign policy during the American Civil War years is that the Royal Navy was emphatically *not* all it was cracked up to be, “all the time” “against anyone.”¹¹

After 150 years, the time has come to question the immutability of “British naval supremacy.” “We are not, it is true, in a condition for war with Great Britain just at this time,” wrote US Secretary of the Navy Gideon Welles in August 1862, “but England is in scarcely a better condition for a war with us.”¹² The British had a large standing navy, to be sure—the largest. But neither can we say this force was make-or-break for the Union.

II

This paper’s arguments rest upon three main, interconnected points:

1. The mid-Victorian British were *not* willing to go to the necessary trouble of fully mobilizing for a major naval and maritime showdown; the Union’s own rapid and costly naval mobilization served to *counterdeter*, in wartime, the latent deterrent force represented by the Royal Navy during the so-called *Pax Britannica*.
2. British naval power, at any rate, was strategically hamstrung by the needs of the British Empire worldwide, both in terms of imperial defense and the aggressive pursuit of national interests. At home the prime minister, Lord Palmerston, was preoccupied with the expansion of French ambitions backed by a new ironclad fleet purpose-built to fight in European waters.
3. In terms of naval and military technology, Britain was heavily committed to building the *wrong* kind of ironclads—like HMS *Warrior*—needed to win a war in American waters. As John Ericsson, the inventor of the USS *Monitor*, assured Secretary of State William H. Seward, “The expedients now adopted by the Admiralty to avert the dangers to England suggested by the recent developments in naval warfare, tend to prove that this country now occupies the vantage ground.”¹³ This was not the “age of the shark” but the “turtle,” with coastal defense quietly trumping coastal offense, as emerging industrial nation-states struggled to shield, consolidate, and magnify their own destinies.

In essence, this was the Monroe Doctrine at work in the American republic’s supreme hour of need, and even John Quincy Adams in 1823 was wary and resentful of the notion that America’s interests, or its navy, should “come in as a cockboat in the wake of the British man-of-war.” Uncle Sam’s fate was not going to be left to a capricious and self-serving “Mistress of the Seas” to decide. Nearly 40 years later, it was left for his son, Charles Francis Adams, as ambassador to Great Britain during the Civil War, to gauge how quickly circumstances changed the tone of British power politics—namely the debut of the Yankee *Monitor* at the Battle of Hampton Roads. “In December [during the *Trent* Affair] we were told that we should be swept from the ocean in a moment, and all our ports would be taken,” he wrote to his own son, Charles Francis Jr. “They do not talk so now. So far as this may have a good effect to secure peace on both sides it is good.”¹⁴ The *London Times*, however, was rather bitter about the news, and on April Fool’s Day, 1862, had to admit “it is quite impossible to dissemble the fact that nine-tenths of the British Navy have been rendered comparatively useless.”¹⁵

For one thing, most of the fleet was laid up in “ordinary” or “steam reserve”¹⁶ at any given time; many of the vessels on the Navy List were old, obsolete, and in need of repairs. During an emergency it took months to get them refitted, manned, and properly mobilized. A Parliamentary Return, or report, on the

“Number of Steam Ships Afloat and Building,” dated February 1862 (that is, a month after the resolution of the *Trent* Affair), listed 57 screw-propelled ships-of-the-line (many of them retrofitted conversions), with 4 more building; 44 screw frigates; 24 corvettes; 48 sloops; 197 gunboats; and 7 iron-armored floating batteries (left over from the Crimean War, six years before); with 4 ironclad frigates built and another 11 building. But of the floating batteries, for example, 4 were never commissioned, and only 1—HMS *Terror*—was deployed on foreign service (at Bermuda). Her iron hull was thickly encrusted with marine growth as the years rolled on, crippling her effectiveness for anything other than harbor defense, and it was difficult to find enough crew to man her guns.¹⁷

Keeping every vessel shipshape all the time simply cost more than Parliament or the British taxpayer was willing to pay. Hulls had to be cleaned and caulked, rigging and boilers replaced.¹⁸ But neither was it considered cost-effective to sell the bulk of this fleet to the breakers—to scrap inefficiency in the name of economy. It was still less expensive to overhaul an old ship than build a new one. When Parliament asked for the current strength of the navy four months later, in June 1862, there were still only four (partially armored) ironclad frigates completed: *Warrior*, her sister ship *Black Prince*, and the two smaller and slower versions, *Defence* and *Resistance*.¹⁹ Six more iron-hulled, partially armored, ironclad frigates were under construction—four large and two small—as well as eight wooden-hulled broadside ironclads, four of which were conversions from second-rate wooden ships-of-the-line and three of which were classed as sloops, mounting only four to eight guns in a central “box.” Within six years, however, the influential controller of the navy Admiral Robert Spencer Robinson was ready to dump most of the wooden steam ships-of-the-line and other (nonironclad) men-of-war still on the books; they were far too expensive to maintain in reserve indefinitely, while “their value as tested by what can be realized for them is next to nothing.”²⁰

The same went for manning a big navy; crews were mustered when a major task force was needed here or there. Once the tour of duty was over, the men were paid off and the ships laid up. The fighting trim aspect of British naval power throughout most of the nineteenth century was therefore divided up into patrolling squadrons and scattered all over the globe. Even in the early Age of the Ironclad, the “government could not do away with their wooden ships, as they required a vast number of such vessels to perform the duties of what might be termed the police of the sea,” noted one Admiralty spokesman in a House of Commons debate in April 1864. Likewise, they were “obliged, to a great extent, to put their forces upon the same footing as those of other countries.”²¹ So there was a battle fleet at home in the English Channel, especially from 1860 during the latest invasion scare with France, and there was another cluster of battleships based in the Mediterranean to safeguard British interests in Europe as well as the major supply line to and from India. The rest of the various stations, namely North America and the West Indies and the Far East/China, were flagged with a battleship or two. But nearly all station squadrons were (rightly) dominated by frigates—by cruisers—and by lighter sloops and corvettes. Defending Britain’s imperial frontier was much more about occasionally “showing the flag” at colonial outposts, intimidating local tribes and despots into favorable trade concessions, or getting far-flung British explorers, missionaries, and soldiers of fortune out of hotspots (usually of their own making).

Even then, between the end of the Crimean War in 1856 and the end of the Civil War in 1865, the British Empire was at war in Iran, India, China, New Zealand, West Africa, and Japan. There were American filibuster expeditions threatening Central America in 1856, a joint Franco-Spanish-British expedition against Mexico in 1861, and a major uprising against colonial rule in Jamaica in 1865. Palmerston, meanwhile, sent naval squadrons to intimidate Spain over Morocco, the French over Savoy and Nice, and the Neapolitans over Naples. By 1866 the British had begun intervening against the Boers in South Africa. It was because of overextended strategic interests like these that most imperial defenses were continually deprived of the necessary funding insisted upon by military and naval professionals of successive British governments, and that fortifications (like those at Bermuda or Halifax or the West Indies) tended to wither on the vine, decade after decade. When a real crisis erupted—like the *Trent* in November 1861—it did not matter if politicians suddenly woke up to the danger, because by then it was too late to establish effective defensive works armed with adequate, modern guns, build dry-docks, or facilitate proper coal depots and arsenals. “If units of the Royal Navy in the Atlantic, Caribbean, and Pacific had attempted to carry out all their orders,” historian Gordon H. Warren therefore concluded, “they not only would have failed, but also would have exhausted themselves trying.” Andrew Lambert’s objection that this assessment only took into account “a fraction of what would have been sent for active operations” and that “the British

had the power to inflict fatal damage on the Union” is not only unsupported by the evidence we have available—including contemporary testimony on both sides of the Atlantic—but ignores the fact that aside from the Royal Navy’s imperial commitments, Palmerston’s biggest strategic concern during this period was France.²²

Under Emperor Napoleon III (Napoleon Bonaparte’s nephew), the Second French Empire consolidated its conquest of Algeria in North Africa, occupied Rome, annexed Savoy and Nice, intervened against Syria, and invaded Indochina (Vietnam). It then became clear that the emperor was determined to make Mexico a puppet state of France. The Crimean War gave the lion’s share of glory to French arms, which then defeated Austria in 1859. The imperial French army was thereby perfectly positioned to command the destiny of Italy—and, it seemed, all of Europe—all over again. Meanwhile, Napoleon built up a powerful, uniform fleet of ironclad frigates. The first armored battleship in history, the *Gloire*, was launched in Toulon in 1859 and posed a real threat to any British warship afloat until HMS *Warrior* was finally ready in August 1861—a year after *Gloire* was already steaming to and fro, uncontested. Historians today more often declare the British frigate was vastly superior, but *Gloire* was only a knot or two slower and was fully armored all along her waterline and gun deck.²³ The French went right on improving on this design concept, outnumbering the British until 1864—and by then the Union navy outnumbered them both with ironclads perfectly adapted to fighting for control of American waters. Napoleon *might* have stood aside while the British threw everything they had into trying to protect their imperial possessions and commerce worldwide, while mobilizing for any kind of offensive against the United States. But given all the abuse heaped upon him by the British press going into the Civil War years—given the anti-French coastal forts that Palmerston in his paranoia had insisted upon in vicious debates in Parliament, openly suggesting the emperor was himself obsessed with humiliating Britannia “in revenge for Trafalgar and Waterloo”²⁴—why would he not expect major map-changing concessions in exchange? Every embarrassment suffered by the Royal Navy, every proud British ironclad lost to a Yankee mine or monitor, would play into French hands perfectly.

In reviewing the latest panic-ridden reports from British military and naval officers returning from a wide-ranging tour of North America’s inadequate defenses—and the Union’s comparatively powerful war machine—Chancellor of the Exchequer William Gladstone, at least, did not see British society about to mobilize to anywhere near the same extremes. One million pounds was needed immediately to begin upgrading Canada’s weakest points; a canal would have to be built “from Ottawa to Huron,” he quoted, “as the very first and most necessary step to enable British vessels of war to enter Lake Ontario”; new dockyards, more roads—the list was endless. Worse than that, the more Britain increased its defenses—and brandished them before the Americans—the more they might “entangle [Britain] in a long course of probably both dangerous and costly embarrassments, without securing the attainment of any useful end”:

It appears to me that the time is now come for us to show whether all that has recently been said about our calling on the Colonies to bear their full share of military burdens has a meaning or not, and whether we do or do not mean to alter our system of Colonial defence with reference to altered circumstances of capability, power, and privilege . . . it is not the simple matter of money that is in view; it is the peril of committing the honour of this country to the assumption of an attitude, which it may be unable or unwilling permanently to maintain.²⁵

III

If, therefore, the Royal Navy was the global policeman of the nineteenth century, then he was armed with a baton and walkie-talkie only. Had someone challenged him with a gun in their neighborhood, the policeman would retreat if he knew what was good for him, and call in reinforcements. We therefore have to take with a grain of salt the claims of some “Imperial Defence” historians that the “real basis of British deterrence was the long-matured and recently demonstrated power of the Royal Navy to conduct large-scale offensive operations against the best defended harbours in the world as the core of a unique maritime warfighting capability.”²⁶ Instead, as evidenced by a Commons debate on Britain’s peacetime “war economy” in early May 1862, Palmerston was able to call forth cheers from both sides of the House in defense of “bloated armaments” (against no less a speaker than Benjamin Disraeli): “He objects to military

power, he objects to naval power, he objects to moral power. It is difficult then to say what power we ought to exercise for the purpose of maintaining our proper position among the nations of the world.” The British Empire was expressly *not* in a commanding position vis-à-vis foreign powers, and in terms of Anglo-American relations explicitly, the British needed French cooperation to give them “that respect and influence which I am proud to say we possess in the councils of the American Government.” Should the Royal Navy be strong? Of course. Yet Palmerston insisted before the nation that

the policy of the present Government is, and the policy of the Government to which he belonged was, not to prepare for aggression, but to organize such a system of defensive preparation that we might go into the concert of Europe either with France singly, or with other powers in addition, as a country standing upon its own defence—strong enough to defend itself against any who might attack it; and therefore not giving counsel out of fear, doing nothing out of apprehension, not yielding obedience from alarm at the consequences which might follow its refusal, but speaking freely, frankly, and openly, as men do who are sure that they incur no danger by the honest expression of their opinions.

This was also a lesson recently imparted to Lincoln’s administration over the *Trent* crisis—that the offensively strong might dictate to the defensively weak if he was not careful. But even here, Great Britain’s most popular and aggressive Prime Minister—whose “patriotic sentiments appealed to the self-confidence of the nation,” Winston Churchill observed 100 years later—judged that “had it not been for the temper, good sense, and conciliatory disposition on the part of both Governments, it is difficult to say what might not have grown out of such an occurrence.”²⁷

Privately, Palmerston was always keen for England to be as powerful on the naval offense as possible. It opened up strategic possibilities as well as “moral influence” in the mutable ranking of states on the global stage. Publicly, however, a clearly militant policy was harder to sell to representative bodies like Parliament or Congress who jealously controlled, as much as possible, the public budget for preserving peace and avoiding wars. Palmerston talked tough, inasmuch as every proud Englishman craved prestige in world affairs. But he was also a master of the naval-diplomatic bluff, of high-stakes brinksmanship. “In doing so he had created a myth of British foreign policy,” observed biographer Muriel E. Chamberlain, “which did not even conform very closely to his actual policy. His real policy was usually cautious, intricate and carefully adjusted to what could actually be achieved.”²⁸

Thus, even in terms of military and naval strategy, it was far easier to present a formidable defense to wreck any potential offensive thrust and at least thereby maintain one’s political independence. This is what Britain really invested her energies in during the Civil War years, and why. The hallmark of Palmerston’s last ministry (1859–1865) was not a coastal assault flotilla of ironclads capable of deadly-efficient work against distant shores, but a vast and expensive series of coastal fortifications designed to nullify any French naval raid on British dockyard arsenals like Portsmouth or a full-scale invasion of southern England. If nothing else, the British “were too cautious,” argued historian Michael Partridge:

It would have been difficult enough in peacetime for the French to gather an invasion fleet and get it across the Channel without the British knowing about it. In war, it would have been all but impossible. The French simply did not have the resources to launch such an attack, as some perspicacious observers noted even at the time.²⁹

The same might be said for transatlantic British ventures. And this also explains why Lincoln, not Palmerston, ultimately held the advantage in any hostile contest of strength. In a war against the Northern states during the Civil War, the British would have had to rely upon two bases to implement a blockade against the Union: Halifax and Bermuda. The latter base was over 700 miles from Hampton Roads, Virginia, for example—three to four days away;³⁰ Halifax was nearly 600 miles from New York City. Both imperial bases were lightly defended by land and sea, with dockyards too meager and undersized to facilitate repairs of large vessels, let alone accommodate large flotillas for coastal operations.³¹ Coal would have had to be continuously shipped over from the British Isles, 2,800 miles away from Halifax and 3,400 miles from Bermuda. That meant long, unprotected supply lines, or mobilizing large elements of slow, outdated wooden

vessels (and their crews) for escort.³² During the *Trent* Affair, the first thing the Admiralty therefore had to do was ship over 10,000 tons of coal to Bermuda and the West Indies in a hurry.³³ But neither was the local commander in chief, Vice Admiral Sir Milne, about to rush into coastal bombardment of New York City or Boston. One ambitious report at the time from Captain John Washington, hydrographer of the Royal Navy, suggested New York might be attacked, but only if the floating batteries were mobilized, safely made it across the Atlantic, and were accompanied by all of the navy's armored frigates available—four of them at best (and again, these were only partially armored—even the slow, unwieldy floating batteries had *no deck armor* and were thus extremely vulnerable to plunging shot from forts on high ground and mortar fire).³⁴

But all this assumed the Americans would not implement effective countermeasures in time. Since Milne was not about to go rushing in until the navy was mobilized enough to risk major operations and he could see to the protection of his own bases and the safety of his supply lines, then we can safely assume that Union obstructions, minefields, and guns would be more or less ready. By 1862 the Union army had already deployed 15-inch caliber smoothbore guns (actually noted in Washington's report) which could blast any armor scheme afloat even after the Civil War ended in 1865 with monstrous projectiles weighing 450 pounds.³⁵ Even the navy's 11-inch Dahlgren guns (introduced in 1856 and firing 166-pound solid shot and explosive shells of 133 pounds) were found to seriously damage, if not altogether penetrate, 4.5-inch-thick iron plating backed by 20 inches of solid oak at point-blank battle ranges; enough to cripple the British floating batteries and play havoc with the unarmored ends of the iron frigates.³⁶ "It is stated by the American papers that the *Warrior* could not enter New York Harbour on account of her great draught of water, and therefore she would be unable to take any part in engaging the forts," *Colburn's United Service Magazine* complacently observed in January 1862. "As there is little probability that any American frigate would have the temerity to engage her in single combat at sea, the *Warrior* would not be found to be of much service in an American war." All this was regrettable since "we ourselves have heard several persons, not members of Mr. Bright's bloody-minded aristocracy, but sober-minded citizens belonging to the middle classes express regret that England was not able to go and thrash the Yankees and pay them off for their innumerable insults to this country." As it turned out, while the author admitted that "most of us feel a kind of pride and satisfaction in having by threats of immediate war compelled these bragging Americans to give in to our demands," it was the Royal Navy and its champion, the *Warrior*, which luckily escaped a humiliating defeat in the mid-nineteenth century—especially had she or one of her sister ships challenged a Union monitor during the American Civil War.³⁷ "Only think of our position," Russell grumbled to Palmerston, "if in case of the Yankees turning upon us they should by means of iron ships renew the triumphs they achieved in 1812–13 by means of superior size and weight of metal."³⁸

The British warships were Blue Water liabilities against Brown Water ironclads of innately heavier (though fewer) guns and thicker, more concentrated iron shielding. The coast was the United States Navy's strategic and tactical edge because it allowed American ironclad designers to capitalize on the existing limits of technology in a rapidly evolving age of steam and iron (which John Ericsson himself helped pioneer). Sails, masts, and rigging were dispensed with in both Union and Confederate ironclads. Shallow draft allowed closer engagement with enemy forts, enabling greater accuracy in the smoke and confusion of battle, or the ability to seek cover under friendly gun emplacements if need be. Time and money also favored the Americans in any ironclad arms race against Britain. The original *Monitor* was launched in 100 days and cost six times less than the *Warrior*, which took a year and a half to build. The designs of the two "model" vessels, even to this day (namely, the restored *Warrior* at Portsmouth and the recovered gun turret and full-scale mock-up of the USS *Monitor* at the Mariner's Museum in Newport News, Virginia), defy what an ironclad was really all about. The *Times* tried to reassure its audience that, if anything, the *Warrior* was a superior specimen of ironclad to either crude American version. The *Illustrated London News*, however, had its doubts:

Is the *Warrior* itself a match for the *Monitor*? It is useless now to talk of speed and magnificence. We don't want our war ships to run away successfully, or to be looked at admiringly, but to fight. How would the *Monitor* deal with the *Warrior*? The guns of the first send shot of 170lb.; the guns of the second, shots of 100lb....Again, the *Monitor* is practically invulnerable to existing artillery: is the *Warrior* the same?³⁹

So unless Palmerston was willing and able to convince the British public to mobilize for a major war against the United States, the existing strength and resources of the Royal Navy were unquestionably *unable* to seriously threaten Lincoln's government, from a few months after the *Trent* Affair of late 1861. When the Prime Minister's cabinet debated intervening in the Civil War in the autumn of 1862, the secretary for war had to remind his colleagues that in such an event "the wooden ships of Europe would encounter the small iron-cased steamers of America, which, though not sea-going ships, would prove destructive in the ports and rivers." By the beginning of 1863, the Controller of the Navy declared that the Americans were now "practically unassailable in their own waters" and that successful offensive operations by the Royal Navy against the US coastline were "simply impossible."⁴⁰ A year later, Palmerston was sorely vexed that despite new warships launched, armed with heavier guns, and the French ironclad threat now seemingly mastered, only new light-draft floating batteries would be able to help keep the strategically crucial St. Lawrence River open in the event of hostilities with the Northern states, requiring experimental new "heavy guns to be put into them which would smash and sink the Monitors." All of this, he complained, was "not very satisfactory as it is all about what is to be."⁴¹

Indeed, as a British journalist and naval pundit warned in 1863, "With moderate forethought England has nothing to fear from France, but possesses a dangerous rival in the United States." This was partially because of America's natural and human resources, partially because of the rival labor system, but mostly because the Royal Navy was building the wrong types of ironclad for war against an enemy's coast. "Give us ships," he wrote, "and we will fight the devil":

With ironclad ships of war of small tonnage this country would effectually overawe America, because such ships could ascend the St. Lawrence river and the Lakes, descend into Lake Champlain, and even threaten the Upper Mississippi across the Illinois Canal. But with large ships only we are really at the mercy of America. America may in such a case attack us, while comparatively little injury could be inflicted in return. With an efficient fleet of small craft we could lay waste the whole region of the Lakes and the Mississippi, while our large ships inflicted all the needful chastisement on the Atlantic towns.⁴²

But instead Britain had chosen a traditional high-seas battle fleet for its diplomatic balance-of-power posturing. This took more time to build, and was quickly rendered obsolete by the time ships were launched by the latest advances in guns and armor plate, requiring constant and expensive upgrades. By March 1864 the sense of British Liberal compromise over defense spending hardened into rueful reflection in the *Times*, as Prussia invaded Denmark—and Britain watched from the sidelines. The country might "throw 30,000 men on any point of any coast, and subsidize ten times as many more." But if "we wish to stand as France stands, we must pay as France pays for the privilege;—that is to say, we must prepare ourselves for largely increased taxations, and deficits after all":

When a man who will not fight except under irresistible pressure interferes in a quarrel, and wishes the combatants to accept his judgment, we know what words he is likely to get. But this "humiliation," such as it is, is the inevitable incident of such a policy as we have chosen.

By November 1865, with the Civil War in America long ended, the *Times* also relented that a "perfect Ironclad is an imperfect seaboat":

That is the maxim which up to this time might be reasonably propounded as the deduction from all our experience. The best illustration of the doctrine was given by the American Monitors. Probably no fabric ever combined a greater capacity for fighting with a smaller capacity for swimming than Mr. Ericsson's original model.⁴³

IV

The mid-Victorian Royal Navy—like the British Empire itself—was, to quote big business nomenclature of today, "too big to fail." Naval technology, especially in terms of coastal defense capabilities

(from “monster guns” on forts and shallow-draft monitors to increasingly sophisticated underwater threats), drove up the risks while nationalism depreciated any potential profit from deterrence through strength—that is, the threat of coastal offense.⁴⁴ The British had too much to lose by running their hyped, oversized ironclads aground and not enough to gain. The Crimean War was feared to be distraction enough to tempt the Americans in Central America, the Chinese in Canton, and then “mutineers” in India. What if a British task force was repulsed by the Northern states? Russia and France were surely watching closely for the first sign of weakness. Drunk on their victory at sea, the “insatiable land-hungry Yankees” would follow up with an invasion of Canada. Just as Palmerston could boast that a quick, easy victory against a relatively weak opponent in one corner of the globe meant that “every country that has towns within cannon shot of deep water will remember the operations of the British Fleet whenever such country has any differences with us,”⁴⁵ a naval *defeat* might quickly unravel the self-serving strategic world order that Britain had meticulously fought for and maintained since at least 1784, the year of Palmerston’s birth and the ratification by Congress of the Treaty of Paris, which ended the American Revolutionary War. Despite the breathtaking chauvinism of British naval revisionists (or “anti-declinists”) who hold that the Royal Navy was not just the “Shield of Empire” but that “every great power with a significant sea coast” was “under the Heel of Britannia,”⁴⁶ the simple fact is that during the American Civil War, British politicians had so little faith in the Royal Navy’s ability to protect the Empire that in 1865 they passed the Colonial Naval Defence Act, effectively allowing Australia, for example, to start up its own navy to provide for its own defense. Further, the British North America Act of 1867 completed a process whereby Canada became “confederated,” with its own government. For British complicity in prolonging the Civil War and damaging the Union’s merchant marine, the United States was successfully able to *sue* Great Britain for \$15.5 million in gold: the *Alabama* Claims and the 1871 Treaty of Washington.

What we are prone to forget is how easy it is to lose on the attack and win on the defense in war, even at sea. England’s own victorious naval tradition began with the repulse of the Spanish Armada in 1588. But Great Britain’s attempt to project overwhelming naval power against Cartagena’s combined defenses in 1741—two years after the popular new poem “Rule Britannia!” loudly proclaimed the Royal Navy was now “The dread and envy of them all” and that “All thine shall be the subject main, And every shore it circles thine”—was an unmitigated disaster, something that too many naval historians (often busy scribbling away about Trafalgar and Lord Nelson) have pointedly ignored, though it cost Britain’s first prime minister, Sir Robert Walpole, his government.⁴⁷ This coincides with the hackneyed comparisons between HMS *Warrior* and USS *Monitor*, for example, which state that the former was categorically superior because she was bigger—when the greatest maritime war in modern history, the Pacific in World War II, featured the sinking of the largest aircraft carrier in the world, Imperial Japan’s *Shinano*, by a diminutive American submarine (the USS *Archerfish*). Nor is the faulty reasoning limited to lay history buffs. In his highly revisionist account of *English Public Opinion and the American Civil War*, Duncan Andrew Campbell declares that “the Royal Navy, with its ocean-going ironclads, was always more than a match for the northern navy.” Citing David Paul Crook’s *The North, the South and the Powers, 1861–1865*, Campbell assures his readers that “Britain had a marked world lead in armoured warships . . . made for the high seas, whereas the Americans’ ships tended to capsize.”⁴⁸ Captain John Wells, RN, in *The Immortal Warrior: Britain’s First and Last Battleship*, offers an interesting appendix on the “*Warrior* in battle” next to French ironclads’ strengths and weaknesses, including a comparison of size, tonnage, draft, armor and armament, and speed. If the *Warrior* or the *Black Prince* had been sent to intervene in the American Civil War, he asserts, “they could have coped quite easily with *Monitor*, *Merrimac* and any of the Federal frigates.” Again no suggestion of evidence is provided. Furthermore, the 1976 *Oxford Companion to Ships and the Sea* retorts to John Ericsson’s naming of the *Monitor* as a warning to British authorities by noting that “Downing Street, in fact, viewed the *Monitor* with complete indifference, having two years earlier launched the *Warrior*, which could have blown fifty *Monitors* out of the water.”⁴⁹

Thus, to paraphrase Lincoln, we must *disenthrall* ourselves from the “dogmas of the quiet past”: that “Britannia ruled the waves” or that the nineteenth century saw a *Pax Britannica*.⁵⁰ One does not voluntarily *give up* power; the British did not *give* the United States its independence in the eighteenth century any more than they granted it to India in the twentieth. And the mid-Victorians only backed away from their empire, retreating into so-called splendid isolation from the mid-nineteenth century, because they realized there was little choice. The great tipping point of British interventionism in the

Age of Palmerston—Britain's most aggressive prime minister and no lover of American society, government, or national power—was the Civil War. "The U.S. have no navy of which we need be afraid," the 70-year-old "Mongoose" wrote in a cabinet memo of 1854, "& they might be told that if they were to resort to privateering, we should however reluctantly be obliged to retaliate by burning all their Sea Coast Towns."⁵¹ But Lincoln was characteristically able to liken the Anglo-American balance of power in North America to "two fields separated by a fence"—the fence in this case being the sea:

In each field there was a big bulldog, and these dogs spent the whole day racing up and down, snarling and yelping at each other through that fence. One day they both came at the same moment to a hole in it, big enough to let either of them through. Well, gentlemen, what do you think they did? They just turned tail and scampered away as fast as they could in opposite directions. Now, England and America are like those bulldogs.⁵²

¹Kenneth Bourne, "British Preparations for War with the North, 1861–1862," *English Historical Review* 76 (October 1961); "The Naval Warfare of England and America," *Colburn's United Service Magazine and Naval and Military Journal* (January 1862, pt. 1): 28–37. The article concluded that despite American heavy shell-firing ordnance, HMS *Warrior*, Britain's first oceangoing ironclad frigate, was "by far the most formidable ship of war in the world."

²"Hundredweight," equalling 112 pounds. So the 8-inch gun weighed 7,280 pounds/3.5 tons.

³See David Lyon and Rif Winfield, *The Sail and Steam Navy List: All the Ships of the Royal Navy 1815–1889* (London: Chatham, 2004), 185, 189. Milne was promised shipments of experimental 110-pounder Armstrong Guns, but these rifled breechloaders proved overcomplicated to operate and seriously defective once in service, and had to be recalled worldwide. See Milne to Sir Frederick Grey (First Naval Lord), December 25, 1861, Milne Papers, MLN 116-2, National Maritime Museum, Greenwich, in which he also expresses surprise at seeing a heavy Parrot rifle gun on the visiting USS *Keystone State* (a converted merchant paddle steamer).

⁴Regis A. Courtemanche, *No Need of Glory: The British Navy in American Waters, 1860–64* (Annapolis, MD: Naval Institute Press, 1977), 153. See also C. I. Hamilton, *Anglo-French Naval Rivalry 1840–1870* (Oxford: Clarendon Press, 1993), 92, who observes that after Hampton Roads "it was patently obvious that all battleships had to be armoured. The British parliament and press realized that the country's screw-liner fleet was obsolete and that recent shipbuilding policy had been purblind and wasteful."

⁵Bourne, "British Preparations," 624.

⁶Russell F. Weigley, *A Great Civil War: A Military and Political History, 1861–1865* (Bloomington: Indiana University Press, 2000), 80–81.

⁷Andrew Lambert, "Winning Without Fighting: British Grand Strategy and Its Application to the United States, 1815–65," in *Strategic Logic and Political Rationality: Essays in Honor of Michael I. Handel*, ed. Bradford A. Lee and Karl F. Walling (London: Frank Cass, 2003), 164–95; Roger Willcock, *Bulwark of Empire: Bermuda's Fortified Naval Base, 1860–1920* (Princeton, NJ: Roger Willcock, 1962), 47–52.

⁸The annual *Report of the Secretary of the Navy*, Gideon Welles, dated December 2, 1861, listed "Forty-two vessels, carrying five hundred and fifty-five guns" in commission before the Civil War began, in March 1861; another 16 frigates and sloops had been called up out of reserve and placed in commission, with new additions expected to make the United States Navy 264 strong, with 2,557 guns and over 22,000 seamen. The following year, on December 1, 1862, Welles reported a collective mobilized strength of 427 men-of-war (323 of them steam-powered) mounting 3,268 guns, with 54 ironclads built and building.

⁹Jack Greene and Alessandro Massignani, *Ironclads at War: The Origin and Development of the Armored Warship, 1854–1891* (Combined, 1998), 108. This expanded on their article "World War 1862? Potential European Military Intervention in the American Civil War," *Command*, September 1996, 40–46.

¹⁰Francis M. Carroll, "The American Civil War and British Intervention: The Threat of Anglo-American Conflict," *Canadian Journal of History* 47 (Spring 2012), 87–115; Lambert, "Winning," 188–89.

¹¹Foreman notes that Palmerston "only ever employed his gunboat diplomacy against smaller nations such as Greece, while his manner towards the other Great Powers of Europe . . . was far more conciliatory," and (in an endnote) that Milne had decided the strategic situation had changed a "mere three months" after the *Trent* mobilization with the appearance of the USS *Monitor*, but he fails to make the connection when asserting that "the United States did not have a naval plan against Britain"—at the beginning of the same note. Amanda Foreman, *A World on Fire: An Epic History of Two Nations Divided* (London: Penguin, 2011), 23, 848n63. The special *Report of the Secretary of the Navy* (Gideon Welles) of July 4, 1861, recommended under "Iron-Clad Steamers or Floating Batteries" that a board of naval officers review plans for three experimental prototypes, publicly advertised, and the following month John Ericsson penned a letter to the White House warning that because forts could no longer be relied upon to stop warships that were clad in iron, civilian targets like New York City were likewise "quite at the mercy of such intruders, and may at any moment be laid in ruins" by European-built varieties carrying "Armstrong Guns." Ericsson to Lincoln, August 29, 1861, John Ericsson Papers, American-Swedish Historical Foundation, Philadelphia. By the time his vessel was ready to launch in January 1862 Ericsson named her "Monitor" partially on the basis that "Downing Street" and the "Lords of the Admiralty" would be "startled and admonished by the booming of the guns from the impregnable iron turret." See Howard J.

Fuller, *Clad in Iron: The American Civil War and the Challenge of British Naval Power* (Westport, CT: Praeger Security International, 2008), 44–56, 78.

¹²Journal entry dated August 11, 1862, in *Diary of Gideon Welles: Secretary of the Navy under Lincoln and Johnson*, ed. Howard K. Beale (New York: W. W. Norton, 1960), 1:79.

¹³Ericsson to Seward, April 23, 1862, John Ericsson Papers. See also William Conant Church, *The Life of John Ericsson* (New York: Charles Scribner's Sons, 1890), 2:5–6.

¹⁴Charles Francis Adams to Charles Francis Adams Jr., April 4, 1862, in *A Cycle of Adams Letters, 1861–1865*, ed. Worthington Chauncey Ford (Boston: Houghton Mifflin, 1920), 1:123.

¹⁵*Times* (London), April 1, 1862.

¹⁶Called the “Steam Reserve” from July 1861.

¹⁷See Milne to Board, March 3, 1863, British National Archives (Kew) (hereafter TNA), ADM (Admiralty) 128-22.

¹⁸Rear Admiral Robert Spencer Robinson (Controller) to Board, June 8, 1861, TNA/ADM 1-5764.

¹⁹Commissioned for the first time in July 1862.

²⁰Robinson to Board, August 4, 1868, TNA/ADM 1-6081.

²¹*Hansard*, April 4, 1864, 440.

²²Gordon H. Warren, *Fountain of Discontent: The Trent Affair and Freedom of the Seas* (Boston: Northeastern University Press, 1981), 139; Lambert, “Winning,” 186.

²³*Gloire*'s designer, Minister of Marine Dupuy du Lôme, considered it an obvious truth that “in an action between two ships that were equal in speed, armor protection, nautical qualities, and radius of action the smaller ship would have the advantage.” See J. P. Baxter, *The Introduction of the Ironclad Warship* (Cambridge: Harvard University Press, 1933), 99, 110, 116–17, 155–80. Also see Hamilton, *Anglo-French Naval Rivalry*; and Howard J. Fuller, “Seagoing purposes indispensable to the defence of this country’: Policy Pitfalls of Great Britain’s Early Ironclads,” *Northern Mariner/Le Marin du nord* 13 (January 2003). If the Admiralty wanted a fully armored screw-frigate, like *Gloire*, British Surveyor of the Navy Sir Baldwin Wake Walker warned it that the tactical “security from Shot and Shell” would require forfeiting “important qualities of sea-going ships” and thereby make any British response “unsuited for general service.” See Walker to Board of Admiralty, January 10, 1861, TNA/ADM 1-5774.

²⁴See, e.g., Palmerston to Foreign Secretary Lord John Russell, October 19 and November 4, 12, and 26, 1859, Russell Papers, TNA/PRO 30-22, 20. Also see Palmerston to Russell, October 11, 1859, in Evelyn Ashley, *The Life and Correspondence of Henry John Temple, Viscount Palmerston* (London: Richard Bentley and Son, 1879), 2: 374–75; and Herbert C. F. Bell, *Lord Palmerston* (1936; repr., Hamden, CT: Archon Books, 1966), 2: 277–78. “Till lately I had strong Confidence in the fair intentions of Napoleon towards England,” Palmerston wrote to Russell, “but of late I have begun to feel great distrust and to suspect that his formerly declared intention of avenging Waterloo has only lain dormant and not died away.”

²⁵William Gladstone, “Defence of Canada,” confidential memorandum, July 12, 1864, Palmerston Papers (Henry John Temple, 3rd Viscount), MS 62 (“Broadlands”), University of Southampton, Southampton, CAB/183-193; “The Iron-Clads,” *Army and Navy Journal*, July 16, 1864. See also Paul Knaplund, *Gladstone and Britain’s Imperial Policy* (London: Frank Cass, 1966).

²⁶See, e.g., Andrew Lambert, “Australia, the Trent Crisis of 1861 and the Strategy of Imperial Defence,” in *Southern Trident: Strategy, History and the Rise of Australian Naval Power*, ed. David Stevens and John Reeve (Crow’s Nest, Austl.: Allen and Unwin, 2001), 99–118; Greg Kennedy, ed., *Imperial Defence: The Old World Order 1856–1956* (London: Routledge, 2008); and John Beeler, “A One Power Standard? Great Britain and the Balance of Power, 1860–1880,” *Journal of Strategic Studies* 15 (December 1992), imparting the logical tautology that because no war occurred during these years, Britain’s dominance at sea was acknowledged. Beeler (564) cites Stanley Sandler’s *The Emergence of the Modern Capital Ship* (Newark: University of Delaware Press, 1979) as proof that the Royal Navy held a decisive lead in first-class ironclads over France by 1867; however, Sandler misquotes the Admiralty sources as discounting all but “four” of the French ironclads as effective because of their “unarmored wooden ends” (59). In fact, the cited reports of the controller, Vice Admiral Robert Spencer Robinson, note that “at present the first class iron-clads of England, as compared with those of France, may be said to be 19 to 16; but, certainly, the four [British] partially-protected iron-clads, viz., the ‘Warrior,’ ‘Black Prince,’ ‘Resistance,’ and ‘Defence,’ are not as well qualified for action as any four French ships that may be selected.” *A General Outline of the Wants of the Navy at the Present Moment with Reference to Ships*, August 23, 1866, TNA/ADM 1-5981, also found in Milne Papers, MLN/143/2. See also *New Designs for Ships*, November 20, 1866, TNA/ADM 1-5982, in which Robinson again condemns Britain’s early (partially armored, broadside-) ironclads and urges the Board of Admiralty to begin construction of turreted ironclads and low-freeboard monitors. His report in July had already acknowledged that “American Artillery, will, there is no doubt, not be behind either ours or the French. I cannot too strongly deprecate building, or contemplating the building of, Iron Clads notoriously too weak to resist the artillery which is certain to be brought against them. A sham Iron Clad in action would lead I am convinced to the gravest disaster.” Robinson to Board, July 31, 1866, TNA/ADM 1-5981.

²⁷“Customs and Inland Revenue Bill,” Second Reading, *Hansard* (166), 1361–1446; Winston Churchill, *A History of the English-Speaking Peoples*, vol. 4, *The Great Democracies* (New York: Dodd, Mead, 1958), 92. “The papers agree in giving Palmerston the greatest credit for his recent speech in reply to Disraeli, whom he has almost annihilated,” recorded Liberal MP Sir John Trelawny in his diary the next day. “I think D. will have lost caste among Tory landlords by his denunciation of ‘bloated armaments.’” T. A. Jenkins, ed., *The Parliamentary Diaries of Sir John Trelawny, 1858–1865*, Camden Fourth Series 40 (London: Royal Historical Society, 1990), 200–201. See also William White, *The Inner Life of the House of Commons* (Richmond: Richmond Publishing, 1973), 167–73, who described cheers “at the conclusion of every sentence” of Palmerston’s speech that evening, “and every now and then there were bursts of hearty laughter so loud and long-continued that the House seemed for a time more like a theatre during the performance of a broad farce than a hall of legislation.”

²⁸Muriel E. Chamberlain, *Lord Palmerston* (Washington, DC: Catholic University Press, 1988), 122–23. See also David Brown, *Palmerston: A Biography* (New Haven: Yale University Press, 2010), 300–301, 316–18, 352–59, 449–51; and Brown, *Palmerston and the Politics of Foreign Policy 1846–55* (Manchester: Manchester University Press, 2002), 215–17.

²⁹Michael Stephen Partridge, *Military Planning for the Defence of the United Kingdom, 1814–1870* (New York: Greenwood Press, 1989), 148.

³⁰Steaming at an average of 8 knots/9 miles per hour.

³¹Milne complained there were no troops assigned to man the forts at his main base of Bermuda, while it was “painful to think that in our principal sea coast defenses here 24 pdr guns should be still mounted.” Milne to Grey, January 2, 1862, Milne Papers, MLN 116-2.

³²Milne warned the Admiralty that “every 8 to 10 days we must replenish coal” and that this would involve “nearly a double set of ships as relays in the Blockades will be required.” Milne to Grey, December 25, 1861, Milne Papers, MLN 116-2.

³³Lambert, “Winning,” 111.

³⁴*List of the Chief Ports on the Federal Coast of the United States, showing the Shipping, Population, Dockyards and Defences as far as known; also how far accessible or vulnerable to an Attack, as far as can be gathered from the Charts. With an approximate Estimate of the Number of Vessels required to blockade the several Ports and Rivers* (London, 1861); copy found in Milne Papers. See also Kenneth Bourne, *Britain and the Balance of Power in North America 1815–1908* (London: Longmans, Green, 1967), 240. Washington may have based much of his information in turn on the pre-Civil War alarmist pamphlets of Major J. G. Barnard of the United States Army Corps of Engineers; namely, *Dangers and Defenses of New York* (New York, 1859) and *Notes on Sea-Coast Defense* (New York, 1861), which specified the importance of the new Rodman 15-inch gun in checking the ascendancy of armored batteries over fortifications. In the latter work see 27–28, 44–48, 56–60. British military professionals had already pointed to heavy seacoast mortars as a powerful antidote to slow-moving floating batteries weak on deck armor. See, e.g., Admiral Sir Edmund Lyons to Lieutenant General Sir John Pennefather, May 22, 1857, TNA/ADM 1-5682; Captain Thomas Spratt to Rear Admiral Sir Houston Stewart, dated May 1856, enclosed in Vice Admiral Sir Arthur Fanshawe to Admiralty, March 7, 1859, TNA/ADM 1-5682; and esp. Captain Bartholomew Sullivan (Board of Trade) to Admiralty, November 13, 1860, TNA/ADM 1-5763. A February 1859 memorandum from the Inspector-General of Fortifications, Sir John Fox Burgoyne, foresaw “a time, and at no distant period,” when vertical bombs would “crush all ordinary artificial bomb-proof cover . . . and by their explosions, ruin ramparts, and even overturn escarps” (TNA/WO [War Office] 33-07). For the British ironclad batteries from the Crimean War see David K. Brown, *Before the Ironclad: Development of Ship Design, Propulsion and Armament in the Royal Navy, 1815–1860* (London: Conway Maritime Press, 1990), 156–57; also target tests against HMS *Erebus*, in report from Captain Richard S. Hewlett, HMS *Excellence*, to Admiral George Seymour (Commander in Chief, Portsmouth), October 26, 1858, TNA/ADM 1-5691. Brown notes the British batteries’ armor plate thickness to be 4 inches at the waterline only; “the rest being 3½-inch. The upper deck was of wood but 9in thick to give some protection. There were two conning towers protected with ⅝ in plate”—practically unprotected from anything but musket fire. In 1864 the Controller of the Royal Navy, Rear Admiral Robinson, condemned the iron-hulled *Thunderbolt* as “very weakly built,” her plate backing of only 6 inches of teak, to be used on the American station at Bermuda (i.e., in the event of war with the United States). See Robinson to Board, September 3 and November 23, 1864, TNA/ADM 1-5891 and 1-5892. Palmerston, frustrated, wrote to First Lord of the Admiralty (during the Crimean War) Sir Charles Wood on January 14, 1856: “If 4½ inches of Iron will not stop a Shot why should we not add as much as will do so? and as to making the Machine float, that surely cannot be an Impossibility.” Halifax Papers (Hickleton), Borthwick Institute of Archives, York University, A4-63.

³⁵“That singular weapon was [also] the naval gun that secured the monitors,” writes Jerry Harlowe, “especially the large sea-going, as being above and beyond the best in the world, British and French fleets included.” *Monitors: The Men, Machines and Mystique* (Gettysburg, PA: Thomas Publications, 2001), 20.

³⁶See, e.g., US National Archives, Record Group 74, Entry 99, Iron Target Reports, 62-66, box 1, vol. 1 (Targets 5–7); also Entry 98, “Reports Concerning Target Practice on Iron Plates, 1862–64, 2 vols.”

³⁷“Theseus, Late R.N.,” “England’s Naval Resources,” *Colburn’s United Service Magazine and Naval and Military Journal* 17 (January 1862): 219. *Warrior* and her sister ship *Black Prince* drew nearly 27 feet of water while the two smaller, partially armored frigates *Defence* and *Resistance* likewise drew 26 feet. This meant any attempt to force the Narrows would be limited to the ability of a good pilot fairly intimate with New York Harbor, maneuvering slowly through a narrow passage, under fire. *Warrior* herself was, for all her innovations, a remarkably traditional man-of-war turned monstrous by her prodigious iron-framed bulk; some 600 men out of a total crew of 700 were required to heave up her two-bladed screw for sail-only cruising on the high seas (with 100 men needed to raise the anchors), and she was unable to turn an extreme angle at her rudder helm beyond 18 to 25 degrees in less than 1.5 minutes with 40 men on relieving tackles. See Oscar Parkes, *British Battleships, ‘Warrior’ 1860 to ‘Vanguard’ 1950: A History of Design, Construction and Armament* (London: Seeley Service, 1970), 16–24.

³⁸Russell to Palmerston, March 31, 1862, Palmerston Papers, MS 62, GC/RU/691-716, January to June, 1862.

³⁹*Times* (London), April 1, 1862; *Illustrated London News*, April 5, 1862, 328.

⁴⁰Sir George Cornwall Lewis, “Recognition of the Independence of the Southern States of the North American Union,” memorandum, November 7, 1862, TNA/WO 33-12, 2; Robinson to Board, January 30, 1863, TNA/ADM 1-5840.

⁴¹Palmerston to de Grey (George Frederick Samuel Robinson, 3rd Earl de Grey and 2nd Earl Ripon), September 11, 1864, Palmerston Papers.

⁴²P. Barry, *Dockyard Economy and Naval Power* (London, 1863), xiii, 136–37, 207–8.

⁴³*Times* (London), March 12, 1864, and November 1, 1865.

⁴⁴See, e.g., Rebecca Berens Matzke, *Deterrence Through Strength: British Naval Power and Foreign Policy Under Pax Britannica* (Lincoln: University of Nebraska Press, 2011), who gratefully acknowledges the “particular help on the nineteenth-

century Royal Navy” given to her by Andrew Lambert and John Beeler, and who wholly buys into their mantra that “British dominance was genuine, and Britain’s policy of deterrence through naval strength suppressed attempts to challenge that dominance” (ibid., x, 225).

⁴⁵See Andrew Lambert, “‘Within Cannon Shot of Deep Water’: The Syrian Campaign of 1840,” in *Seapower Ashore: 200 Years of Royal Navy Operations on Land*, ed. Peter Hore (London: Chatham, 2001), 74–95. Lambert asserts that such actions “disabused France of her dreams of maritime equality” while thwarting Russian influence in Istanbul. Thus, “between the Battle of Trafalgar and the First World War every great power with a significant sea coast had good cause to fear the power of the Royal Navy” (ibid., 124). As the First World War broke out anyway, that fear may be said to have been fatal to *all* concerned.

⁴⁶Andrew Lambert, “Under the Heel of Britannia: The Bombardment of Sweaborg 9–11 August 1855,” in Hore, *Seapower Ashore*, 96–129.

⁴⁷For Cartagena see Francis Russell Hart, *Admirals of the Caribbean* (Boston: Houghton Mifflin, 1922); Richard Harding, *Amphibious Warfare in the Eighteenth Century: The British Expedition to the West Indies 1740–1742* (Woodbridge, UK: Boydell Press/Royal Historical Society, 1991). See also Richard Harding, *The Emergence of Britain’s Global Naval Supremacy: The War of 1739–1748* (Woodbridge, UK: Boydell Press, 2010); and Howard J. Fuller, *Empire, Technology and Seapower: Royal Navy Crisis in the Age of Palmerston* (London: Routledge, 2013), 204–6. Harding notes that so much of the Royal Navy was sequestered for the Cartagena assault that the kingdom itself “was exposed” (*Emergence*, 87). Hart gives the figure of “one hundred and twenty-four sail,” making it probably the largest concentration of British naval combined forces ever deployed in war until June 1944 (*Admirals*, 140–42).

⁴⁸Duncan Andrew Campbell, *English Public Opinion and the American Civil War* (Woodbridge, UK: Boydell Press, 2003), 241. See also Beeler, “A One Power Standard?”, 558. Crook himself does not offer a comparison between Anglo-American ironclads other than observing, rightly, that monitors were “likely to be confined to harbor service and local defense.” David Paul Crook, *The North, the South and the Powers, 1861–1865* (New York, John Wiley and Sons, 1974), 186–89. No monitors “capsized” during the American Civil War; the original prototype foundered in the “Graveyard of the Atlantic” for reasons still unknown, while the *Weehawken* sank at anchor December 6, 1863, when the forward hatch was accidentally left open, flooding the vessel (already down by the bow due to inordinate ammunition stowage forward) enough so that the pumps could not be brought into action in time. See *Report of the Secretary of the Navy in Relation to Armored Vessels* (Washington, 1864), 297–342; Ericsson to Welles, December 12, 1863, John Ericsson Papers, Library of Congress. Crucially, what the semisubmersible design lacked was a large reserve of internal *buoyancy*—a point that Oscar Parkes makes, though he might have added that such vessels (like submarines today), given the smaller margin for error, required all the more skill and diligence from their sailors (*British Battleships*, 46).

⁴⁹John Wells, *The Immortal Warrior: Britain’s First and Last Battleship* (Emsworth, UK: Kenneth Mason, 1987), 240–41; Peter Kemp, ed., *Oxford Companion to Ships and the Sea* (New York: Oxford University Press, 1976), 555. In 2006 the *Oxford Companion* was revised and updated for republication in paperback, with I. C. B. Dear as coeditor; the “fifty” remains.

⁵⁰“Nostalgia sometimes sees Britain as the greatest power in the world in the nineteenth century,” noted Muriel E. Chamberlain in 1980. “She was never that. It is true that her overseas interests had compelled her to assume the role of a world as well as of a European power but in terms of the continent of Europe she was always only one among five great powers.” *British Foreign Policy in the Age of Palmerston* (London: Longman Group, 1980), 3; see also Muriel E. Chamberlain, “*Pax Britannica*”? *British Foreign Policy, 1789–1914* (Harlow: Longman Group UK, 1988), 7–10.

⁵¹Memorandum dated September 10, 1854, from Kenneth Bourne, “Lord Palmerston’s ‘Ginger-beer’ Triumph, July 1, 1856,” in *Studies in International History*, ed. Kenneth Bourne and D. C. Watt (Hamden: Archon Books, 1967), 148–50.

⁵²Emanuel Hertz, *Lincoln Talks: A Biography in Anecdote* (New York: Viking Press, 1939), 356–57. While very “Lincoln,” this account is most likely apocryphal. In the context of ironclads, the hole here might be considered technological advances.