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**The German School of Naval
Thought and the Origins of the
Tirpitz Plan 1875 - 1900**

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Preface

This paper has gone through several incarnations over the last three years. Parts of it were first presented to Prof. Wolfgang Mommsen's *Oberseminar* at Düsseldorf University. More recently it has benefitted from comments received after presentations to Prof. Stig Förster's War and Society seminar at Berne University, the Twelfth Naval History Symposium at the United States Naval Academy at Annapolis and the graduate seminar at the Historical Institute of the University of Trondheim. I would especially like to thank Dr. Gary Weir of the Naval Historical Center and Prof. György Péteri at Trondheim for their comments on these occasions. Dr. Toby Philbin of the US National Intelligence Council and Dr. Keith Bird, President of New Hampshire Technical College were also very encouraging. Prof. Volker Berghahn of Brown University made some useful suggestions in a long telephone conversation.

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Introduction

Naval Strategy in an Industrializing World, 1850-1890. The British and French Schools, Professionalization and Imperialism

The origins of modern naval thought can be traced back to the latter third of the nineteenth century. There are several reasons for this. The most obvious one is the revolution in the technology of naval warfare that began around 1840. In the course of a generation warships that were not that different from their seventeenth century predecessors became obsolete. By 1870 the iron-hulled, steel-armoured, steam-driven battleship had appeared on the scene as the most complicated machine of the nineteenth century. None of the contemporary technological innovations in land warfare could be compared with these fundamental changes. The consequences for naval thought were profound, first at the tactical level, then, from the mid-1860s, at the strategic.¹

A second reason for the growing interest in naval matters in this period was related to the changes in the strategic context brought about by industrialization. In 1846 Britain abolished the Corn Laws and inaugurated the new era of Free Trade and *laissez faire* capitalism. Twenty years later the workshop of the world was far wealthier but no longer capable of feeding itself. The problem of protecting the sea lanes that carried commerce to and from the British Isles took on a new urgency.

During the last great era of naval conflict at the beginning of the century the Royal Navy's command of the sea had protected Britain against invasion and enabled it to exert considerable economic pressure on the continental states through its blockade. Napoleon's response was the self-blockading "continental system" which, by shutting British commerce out from its most profitable markets, caused serious economic dislocation and hardship. Fifty years later policy makers and military men were beginning

to recognize that the danger Britain faced if the Royal Navy were to lose command of the sea, was no longer just invasion and economic hardship, it was also starvation and social revolution. Out of their discussions grew the British "Blue Water" school of naval thought, which represented an adaptation of centuries of historical experience with naval warfare to the strategic realities of industrialization and economic specialization within the new capitalist world economy.²

In France, too, naval strategists were beginning to adjust themselves to the new realities of an industrializing world. For twenty years *La Royale* had attempted to gain a technological advantage over its rival across the Channel. The resulting naval competition culminated in three intense arms races. By 1865, however, it had become obvious that French technological brilliance could not offset the productive and financial resources that Britain could mobilize behind its first line of defence. As early as 1869, Richild Grivel proposed to switch to a strategy of commerce warfare against Britain's newly exposed Achilles' heel, whilst continuing to build battleships for use against the weaker navies of France's continental rivals.³

This was to be the strategic stance finally adopted by the French navy after thirty years of furious debate.⁴ That discussion was above all caused by the efforts of the so-called *Jeune école* to find a way out of the strategic dilemma facing France after its crushing defeat by the North German Confederation. After 1871 the French navy had to accept not only its inferiority with regard to the Royal Navy but also the indisputable budgetary priority given to the army in the scheme of national defence. France could no longer compete with Britain in building battleships. In any case, the men of the *Jeune école* reasoned, the new tactical certainties of war under steam ensured that a weaker battlefleet would have no choice but to remain in port and could accomplish nothing during a war.

The leading advocates of the new approach, Admiral Aube and Gabriel Charmes, believed that technology provided a way out.⁵ Numerous small, swift torpedo boats would threaten the vulnerable battleships of the "tyran de la mer", thus forcing his fleet, too, to remain in port while commerce

raiders carried on a ruthless campaign of destruction on the high seas. The *Jeune école* did not believe that they could starve Britain into submission, but they hoped that soaring maritime insurance rates would create sufficient economic and social turmoil to force Britain out of a war.

The *Jeune école*'s analysis of the new conditions of naval warfare proved to be a surprisingly accurate prediction of the stalemate of 1914-18 and of the coming pitiless war on commerce - in short of the total war that pitted whole societies against each other. Their prescriptions also drew on centuries of experience with commerce raiding against the superior sea power of the British. At the time of writing, however, their belief in the effectiveness of the new technologies was overly optimistic; their commerce raiding strategy would only become a viable option with the invention of the ocean-going submarine thirty years later. In addition, the strategic debate became entwined with the power struggles of domestic politics and between sectional interests within the service itself, making it almost impossible for the Ministry of Marine to pursue a coherent policy.

A third reason for the renewal of naval thought was the process of military professionalization, which was given a great boost by Prussia's victories in the wars of unification. In the decades following 1871 armies all over the world set up general staffs to systematize war planning, and some form of conscription was introduced in most countries, often in the teeth of sustained opposition from conservative officer corps. For our purposes the Prussian professionalization of military education is most interesting. All armies eventually introduced some form of staff college in imitation of the *Kriegsakademie*, founded in Berlin in 1810. Navies were slower to follow this trend, with the exception of two countries.

The United States had been inspired by the Prussian model of military education long before it had proven itself in battle. It may also have followed the early lead of the Imperial German Navy in setting up a similar institution for the higher education of naval officers.⁶ In this respect the two younger navies differed significantly from those of Britain and France. With next to no historical experience of naval warfare, and in a period characterized by dramatic technological changes and a general lack of

interest in naval matters, teachers in these two navies had to start from scratch. They had to develop the concepts needed to analyze naval warfare and naturally took the strong theoretical traditions of their military academies as their point of departure.

At the same time, the marginal importance of their services in the respective schemes of national defence made these discussions highly abstract. The temptation to develop theories that enhanced the importance of the service to the nation was stronger than in countries where it had a demonstrably useful role to play. The lack of historical experience combined with a strong institutional motive to ensure that the early professionalization of naval education influenced naval thought more strongly in Germany and the USA than in the two well-established sea powers.

The fourth reason for the revival of interest in naval matters towards the end of the last century actually has little to do with naval *strategy* as such. It was a consequence of High Imperialism, the rapid expansion of European political control over most of the non-European world from the early 1880s onwards. It is a fact of fundamental historical importance that the early development of naval strategic thought was caught up in and overshadowed by the *political* instrumentalization of navies in the age of imperialism. Navalism (which will be defined below) invented roles for sea power which had little to do with its tasks in war, but which were very useful in mobilizing taxpayers behind programmes for the construction of vast fleets of battleships.

Again it was to be the navies of the United States and the German Empire which proved most receptive to navalism. Their abstract approach to naval theory and their need to prove their importance to an indifferent nation were perfect preconditions for their enthusiastic adoption of an imperialist interpretation of sea power. Strategic theory, naval history and imperialist ideology were inextricably linked in the unsystematic thought of Alfred Thayer Mahan, probably the most influential international publicist of the 1890s. He developed his theories while teaching at the United States Naval War College in the second half of the 1880s. When he began to

publish them in the early 1890s, they were quickly picked up in Germany. More than in any other country, imperialist theories of sea power directly influenced the strategic concepts of what will be defined below as the *German school* of naval thought.

This term does not exist in the many studies of the Imperial German Navy, but I believe it was a historical reality and that it can be distinguished from both the British and French schools. It had more in common with important trends within US naval thought, but it also differed from them in one important respect: the peculiar political and institutional structures of the German Empire made it possible not only for the glaring contradictions between the «military» and «political» interpretations of sea power to exist side by side within the navy, but even for the latter to become the most important plank of the *Kaiserreich*'s foreign policy from the turn of the century.

The following pages are an attempt to trace the development of German naval thought from its Prussian origins in the 1870s to the form that it took in the so-called Tirpitz Plan around 1900. The political framework within which this development took place has been left out of the narrative.⁷ The implementation of the Tirpitz Plan was also the expression of the will to world power of the newly-united German nation-state and especially of its aspiring middle classes. Here, however, I will consider the navy as a profession resentful of the public's indifference and craving recognition in its own right, as a bureaucratic corporation seeking to enhance its influence and command more of the available resources, and as a service wanting to step out of the shadow of the best army in the world. It is these institutional motives that I believe provide the key to an understanding of the chain that links the first lectures in naval history given at the *Marine-Akademie* in the 1870s with the German Empire's attempt to become a world power at the beginning of this century.

The German School of Naval Thought

The modern German navy was brought into being in 1867 by an article in the constitution of the North German Federation. Four years later it became the Imperial German Navy. It and the Reichstag were the only truly national institutions of the German Empire. Both had a very short history on which to look back. During the revolution of 1848/9 the Frankfurt assembly, which was trying to create a German national state by parliamentary means, also decided to create a fleet to defend the coasts of northern Germany in the conflict with Denmark; bourgeois patriotic associations collected voluntary contributions to finance it. After the failure of the revolution, some of the ships were sold, others formed the nucleus of a small Prussian navy, and that, in turn, was eventually absorbed by the new federal institution of 1867.

The German Empire was a continental state. It was forged in three wars in which the Prussian General Staff under the elder Moltke won quick, decisive victories that served perfectly the purposes of Bismarck's diplomacy. The navy played an insignificant role in these stirring events. For the following quarter of a century, the most ambitious younger elements in the officer corps smarted under its apparent irrelevance to the nation's destiny. Then (as we shall see below) they adopted an ideology of sea power, in the light of which a powerful battlefleet seemed to be the necessary spearhead of the Empire's further development into a twentieth century world power.

For the first 25 years of its existence the navy's tasks were narrowly and precisely defined, first by the Prussian war minister Roon in 1865.⁸ Moltke himself described them in February 1873 as protecting against invasion from the sea, hampering a close blockade and preventing the bombardment of coastal towns.⁹ The first head of the Admiralty, Stosch, added the use of cruisers to protect German merchants overseas; but he was equally clear that the navy could not hope to face up to a major European antagonist in home waters.¹

His successor from 1883 to 1888, Caprivi, was if anything even more determined to give the army absolute budgetary and strategic priority.¹¹ After he had left the Admiralty to follow Bismarck as Reich Chancellor, Caprivi did however concern himself with the problem of securing supplies of foodstuffs to the army in time of war.¹² Germany's rapid industrialization was making it increasingly dependent on imports of food and raw materials from overseas; if they were interfered with, that could at least affect the army's staying-power in a protracted war. Caprivi saw that the navy would have a role to play in preventing a close blockade of the coast; but he also recognized that the country's abysmal geographical position, with the British Isles obstructing its access to the Atlantic trade routes, would make it easy for France to bottle up the North Sea. Since Germany could not break such a wide blockade, he concluded pessimistically that only the superior speed of modern merchant steamers would help them escape the blockaders and make it to the safe area of the North Sea that the navy could manage to control.¹³

The basic premise underlying these definitions of the navy's tasks remained the same for 25 years: Germany was a continental state; its fate in a war with France or Russia, or both, would be decided on land by the army. This did not mean that Germany did not need a navy, but that it needed one to cover the chinks in its armour left by its exposed North Sea coastline and growing dependence on overseas trade. There is little to add to the evaluation of this strategic stance that Theodore Ropp made in 1937:

The German navy was simply another arm of a rational system of national defense. [...] the navy was merely the part of the army that happened to watch the sea frontier. [...]

Germany's policy of a mobile coast defense on land and sea, a product of the army's domination of strategy, was [...] but the reasoned policy of the military masters of Europe in accord with the principle of the greatest economy of forces under a unified command.¹⁴

The Development of Tactics

The strategic framework within which the navy was to develop, was securely set, but there was a vast amount of work to be done to develop the matériel, know-how and doctrines necessary for it to be able to fulfill these tasks. The fleet was being built from scratch at a time when the new technology of the industrial revolution was undermining many assumptions about how the ships, and what kind of vessels, were to be used.

The British and French navies had faced the same problems since the 1850s. Their initial response to the uncertainty caused by the new and changing capabilities of steam warships was to fall back on the tried and tested maxims of land warfare. By the end of the 1860s, however, this «militarization of naval warfare»¹⁵ receded into the background as the weight of historical experience, tempered by contemporary strategic analysis, began to reassert itself. During the 1870s, as already mentioned, two very different national schools of naval thought began to emerge, the *British Blue Water* school and the French *Jeune école*.

In Germany, too, tactical doctrines developed through a process of methodical experimentation that drew on analogies from land warfare.¹⁶ Under Stosch, tactical patterns were drawn up on paper and tested in evolutions at sea; the results were evaluated, and the conclusions drawn eventually took the form of formal tactical doctrines. They were to guide commanders in the period after the enemy had been sighted but before battle was joined.¹⁷ After a period of revision during the 1880s, these formal tactics were further developed into what Curt von Maltzahn called applied tactics.¹⁸ Caprivi led the way in building a bridge between tactical doctrines and manoeuvres, on the one hand, and battle tactics, on the other. In 1888, shortly before he stepped down from the Admiralty, he circulated his *Twelve Tactical Questions* within the officer corps. The responses summed up much of the experience gained as a result of fifteen years of work on the systematic development of tactics.¹⁹

The further development of battle tactics owed much to the methodical work carried out by the Torpedo Section, which was founded in 1877 and

led for twelve years by *Korvettenkapitän* Alfred Tirpitz.²⁰ The Torpedo Section pioneered a scientific approach towards resolving specific problems. It would test a theoretical solution in experiments and exercises; this process of trial and error resulted in practical applications of doctrine that came as closely as possible to reproducing war conditions. By the end of the 1880s squadron tactics had begun to emerge as a by-product of the work of the so-called *torpedo gang*. The evolution of German tactical thought had reached a point where it fitted neatly into the concepts of the emerging ship-of-the-line school.

A caveat must be entered here. The obsession with the decisive battle on the high seas between fleets organized in squadrons of battleships acting in accordance with clearly defined and tested tactical doctrine - an obsession that was to grip all major navies during the 1890s - was *not* the end result of a long process of practical experimentation or the attempt to solve concrete strategic problems. It was derived from a completely different source.

According to Maltzahn, the concept of the decisive battle on the high seas between fleets of battleships owed more to gut feeling or *abstract speculation* than to the practical experience gained by navies during the decades of rapid technological change.²¹ Herbert Rosinski, who was in an unrivalled position to compare German naval thought with that of other countries, stated later that the special circumstances of the Imperial Navy's early years led it to develop a "peculiar deductive approach" to the study of naval warfare. As we shall see below, German theoreticians were not alone in adopting certain abstract principles or "laws" drawn from the study of land warfare. But their deductive approach did mislead them "into pressing naval warfare into a conceptual framework evolved out of the totally different conditions obtaining on land, or else into purely abstract discussions and distinctions which gave their work a strange atmosphere of unreality."²²

In Germany, as in the United States, one of the most important centres from which this abstract strain of thought emanated, was the highest educational institution within the naval establishment. In the latter case, this

was the Naval War College at Newport, Rhode Island, which opened its doors in 1884. In the former, it was the *Marine-Akademie*, founded twelve years earlier.

The Strategic Axioms of the Prussian School: Stenzel and the *Marine-Akademie*

In 1872 Stosch decided that the new navy would need an institution for advanced studies. It should further the education of the best qualified officers in a broad range of fields. Among other subjects, which included modern languages, hydrography and international law, they should also be taught strategic theory and naval history.²³ The *Marine-Akademie* (MA) was first situated near Kiel and drew on lecturers from the university in certain subjects. It later moved to Mürwik, near Flensburg. From 1875 to 1883 the course lasted for three years; Caprivi reduced it to two.

The obvious model for the new institution was the *Kriegsakademie* in Berlin, but it is more interesting here to see it in its international context. It is often stated that the US Naval War College was the first institution of its kind in the world.²⁴ In fact, that particular honour belongs to the *Marine-Akademie*. (Perhaps it has been confused with the Naval Academy at Annapolis because of its similar name. But the equivalent German institution for the education of naval cadets was the *Marineschule*. The most likely explanation for the mistaken claim is that whereas the USNWC has been the subject of much scholarly attention, the MA has received hardly any).²⁵

The parallels between the two establishments throw an interesting light on the origins of modern naval thought. It is pertinent to speculate as to whether they did not exert a stronger influence within their respective naval establishments than did the equivalent (and much later) institutions of further education in Britain and France. Institutionally, as well as with regard to the methods and content of the subjects taught, the Berlin *Kriegsakademie* and the Prussian professionalization of the study of war

were obviously the ideal both sought to emulate.²⁶ Both the Imperial German and the US Navy were much younger than the Royal Navy and *La Royale*. They did not have centuries of historical experience with naval warfare to draw on, and the imponderables of technological change probably made them more receptive to the abstract theories taught to the young elite of the officer corps.

Even more importantly, they were both assigned a marginal role in their countries' schemes of national defence. The recently re-United States were not threatened by anyone, and the German navy was a very junior partner of the glorious army that had forged the Empire and continued to defend it. Neither was faced with pressing tasks of vital national import. It seems probable that this restricted strategic context provided a certain latitude for imaginative theories: any consideration of tasks that went beyond coastal warfare or gunboat diplomacy opened up a wide field for abstract speculation. Although documentary evidence is hard to come by, it is also reasonable to suspect that a strong institutional motive lay behind the adoption of theories that served to enhance the importance of the navy to the nation.²⁷

One problem that both institutions of higher education obviously did face, was a complete lack of modern studies of the theory of naval warfare. "The US Naval Institute *Proceedings*, the Navy's most learned publication, did not run a single article on strategy or tactics from its founding in 1874 until 1886."²⁸ Neither did any of the leading military periodicals in Germany. The *Marine Rundschau* was only founded in 1890 and shied away from anything remotely connected with politics until the High Command gained control of it in 1894.²⁹ Before that, the only publication devoted to naval affairs was the *Beihefte zum Marine-Verordnungsblatt*. During the 1870s and 1880s it published less than a handful of decidedly uncontroversial, anonymous articles on tactical subjects; more importantly, it contains only the most sporadic of references to contemporary debates in British and French journals. The more widely circulated military periodicals also yield a very poor harvest. The *Neue militärische Blätter* contains not a single article on naval matters before 1892; the *Revue der gesammten Armeen und Flotten* did provide the

occasional descriptions by naval officers of life in the mangrove swamps of South-East Asia or among Peruvian indians; the *Militär-Wochenblatt* had even less to offer. Where was a teacher of naval history and strategy to turn?

In 1887, Captain Mahan described the situation thus:³⁰

There is an entire lack of textbooks upon which to base a course of instruction. [...] There is nothing in the range of naval literature to place alongside the many and elaborate treatises in the art of war on land in its various branches. Much indeed has been written. But what has thus far been produced is for the most part fragmentary, representative of special views, partial and unsystematic in treatment. No attempt has been made to bring the whole subject under review in an orderly well-considered method.

A decade earlier, the first teacher of naval strategy and history at the *Marine-Akademie*, *Kapitän zur See* Alfred Stenzel complained of the same difficulty. He could only mention two attempts to master the theory of naval warfare, Richild Grivel's *La guerre maritime* (1869) and *Seekrieg und Seetaktik* by the Austrian Atlmayr - and he regarded both as being only partially successful. Stenzel was forced to prepare his lectures on the theory of naval warfare from scratch, with no similar works to draw on. They were not published until seven years after his death in 1906; but according to his pupil and editor of his posthumous papers, Kirchhoff, the text was substantially finished within a few years of his taking up the position in 1875.³¹

Stenzel taught at the *Marine-Akademie* until 1881, and then again from 1894 to 1896 when he resigned in disgust and ill-health.³² During his first stint as lecturer his pupils included several officers who, as Admirals, were to lead the Imperial Navy in the decades before the First World War.³³ How then is his influence to be measured? Kirchhoff described him as the "German Mahan". Borckenhagen, who translated *The Influence of Sea Power on History* into German, also compared Stenzel favourably to

Mahan; he recalled, in 1896, how stimulating his lectures had been and thought it a shame that none of his successors had had the same stature or been able to build on the foundations he had laid. Even in 1929, in Otto Groos's apologia for Germany's pre-war naval strategy, Stenzel got a favourable mention as the founder of a German science of naval warfare. In his memoirs, Tirpitz stated that naval history was taught "insufficiently" when he was a pupil at the academy, but that did not mean that he did not learn anything from it.³⁴

Instead of making claims about Stenzel's influence that would be difficult to prove one way or the other, it is sufficient to state that he was the most pronounced representative of tendencies within early German naval thought which can also be substantiated by other references. These tendencies can be summed up as the transfer of the central tenets of German military thought to the theory of naval warfare. More specifically, the influence of Clausewitz is present throughout Stenzel's work, and especially in his theoretical writings: they are full of unacknowledged quotations from *On War*, some of them slightly altered, most of them verbatim. Indeed, Stenzel originally wanted to publish his lectures under the title *On War at Sea* ("Vom Seekriege"). His borrowing of innumerable quotations from *On War*, and even more of a specific approach to the subject, are so obvious that *Kriegführung zur See* can best be described as one long attempt to baptize Clausewitz with salt water.

Clausewitz did not become famous for his penetrating analysis of naval warfare. In fact, he was completely ignorant of the subject and had not a word to say about sea power in any of his writings. Whether or not his maxims can be adapted to suit the conditions of naval warfare has been discussed. Julian Corbett certainly found inspiration for his great study of the subject in a surprisingly sophisticated and modern reading of *On War*. Since 1945, the differentiated approach to Clausewitz founded by Hans Delbrück, Corbett and Rosinski was further developed by Jehuda Wallach and Peter Paret and culminated in Raymond Aron's magisterial study.³⁵ Their work revised the interpretation of Clausewitz as the prophet of the decisive battle of annihilation. They drew heavily on the plans for a revision

of the manuscript of *On War* that Clausewitz outlined shortly before his death in 1831. This research has made it clear that had he lived longer, he probably would have toned down his previous insistence on the destruction of the enemy's main force in battle being the sole objective in war.

However, Azar Gat has recently subjected this interpretation of Clausewitz to withering criticism. He claims that Aron, Bernard Brodie and other *defense intellectuals* have created a distorted image of the philosopher of war that suited the needs of strategists in the age of Mutual Assured Destruction, but ignored the real influence of Clausewitz on the men of the nineteenth century. The crux of Gat's argument is that although Clausewitz may have recognized that the military objective in a war need not always be the destruction of the enemy's main force, the concept of battle was inherent in his very definition of war itself: there may be various *objectives* in war, but for Clausewitz battle is the only *means*; it is the activity that defines the very phenomenon of war and isolates it from other forms of human interaction.³⁶

There is no doubt that Gat's interpretation is borne out by a study of Clausewitz's influence on German naval thought in general and on Stenzel in particular. It is not necessary here to discuss Stenzel's borrowings, or their usefulness for naval theory, in detail, because one stands out above all the rest, and from it all the major consequences flow. In Book I, Chapter 2 of *On War*, Clausewitz wrote the following:³⁷

There is only one [means in war]: combat [...] it is inherent in the very concept of war that everything that occurs must originally derive from combat. [...] The whole of military activity must therefore relate directly or indirectly to the engagement. The end for which a soldier is recruited, armed, and trained, the whole object of his sleeping, eating, drinking, and marching is simply that he should fight at the right place and the right time. [...] Thus it is evident that destruction of the enemy forces is always the superior, more effective means, with which others cannot compete.

On this subject, Stenzel had the following to say:³⁸

Whether directly or indirectly: The destruction of the enemy forces is the foundation of all military activity; in order to bring it about, we have only one means, combat. The end for which the crew is recruited, clothed, trained and fed, for which the ships are built, equipped, and armed - is simply to fight at the right time at the right place.

Stenzel does recognize that there are differences between land and sea warfare, the most important being that at sea there is no terrain to present obstacles to progress in any direction. Therefore, naval warfare is divided into coastal war, where the proximity of land does present certain obstacles, and war on the open seas, where there are none. He concludes that though these factors may make naval warfare *appear* very different to war on land, they are *essentially* ("ihrem Wesen nach") very similar.³⁹ But he appears to have no clear conception of what battle was supposed to achieve, apart from the destruction of the enemy fleet. He seems to regard secondary operations such as commerce interdiction and blockade as akin to Clausewitz's pursuit after battle: the object is to complete the destruction of the enemy's organized resistance. Although he speaks of "commanding the sea", it is obvious that the Mahanian concept of command as the object of battle is not part of his vocabulary. A comparison with other sources makes it highly likely that the concepts of "command" and "sea power" entered German naval thought only after the publication of *The Influence of Sea Power on History* in 1890.⁴⁰

One final point to be made is that there is no trace in Stenzel's work of an ideology of sea power, such as will be identified with Mahan in the sections below. When he addressed the problem of protecting sea interests, he thought in terms of the *direct* protection of German merchantmen by cruisers on the high seas.⁴¹ Similarly, when Stosch expressed his concern for Germany's overseas commercial interests, he wanted more cruisers on foreign stations, so as to provide *direct* protection to German merchants in

areas where the rule of law was liable to break down. Even though he was in favour of colonial expansion, Stosch, while head of the Admiralty, did not share the later belief of German navalists that a battlefleet in European waters would provide the military backbone necessary for overseas economic expansion.⁴² This is even more true of Caprivi's plans for a navy designed to break a close blockade of the German coast.⁴³

To sum up, Stenzel must be regarded as the founder, or at least as the most pronounced representative, of a Prussian school of naval thought. The axioms of this school provided the theoretical framework within which the Imperial Navy developed during the first half of its existence. Three characteristics distinguished the Prussian school from contemporary British and French naval thought, as well as from the German school that grew out of it from the mid-1890s. The first was its speculative nature, which can be put down mainly to the marginal role of the navy in the scheme of national defence. The second was the transfer of Clausewitzian axioms to naval warfare. The third was the fact that the Prussian school was *not* imperialist: where they occur, terms such as "sea power", "command of the sea", "the protection of sea interests" and so forth, do not yet have the connotations they were to acquire during the course of the 1890s.

The early professionalization of higher education in the Imperial Navy was probably the most important factor contributing to the propagation of abstract, axiomatic theories of naval warfare; and their insistence on the pivotal role of the decisive battle facilitated the rise of the proponents of a big battlefleet. It is certainly hard to identify any alternative source of such doctrines in the late 1880s, whether in foreign influences or in the experimental work carried out at the tactical level. Furthermore, the similarities between developments in the German and US navies also led the former to embrace Mahan's ideology of sea power when it became publicly known in the first half of the 1890s.

Mahan the Strategist and the Peculiarities of Naval Warfare

It is well-known that when Mahan found himself in the same situation as Stenzel had been in a decade earlier, he turned to the Swiss military theoretician Jomini for inspiration⁴⁴. From him he borrowed "the principle of concentration, the strategic value of the central position and interior lines, and the close relationship between logistics and combat."⁴⁵ Due to the enormous success of his historical studies and political commentaries, Mahan's thought became an international benchmark. He can therefore be said to have initiated the scientific study of naval warfare.⁴⁶ His transfer of Jominian concepts may have been irrelevant, inappropriate or downright wrong, but by having set a standard, he opened the way to debate, revision and greater precision.

Mahan's most important borrowing from Jomini, however, was the transfer of the concept of the decisive, Napoleonic battle of annihilation to naval warfare.⁴⁷ As he put it himself: "Jomini's dictum that the organized forces of the enemy are ever the chief objective, pierced like a two-edged sword to the joints and marrow of many specious propositions."⁴⁸ Mahan gave the term "command of the sea" a specific content and a wide currency; but he also linked it inextricably to the concept of the decisive engagement on the high seas between fleets of battleships. There was some historical justification for that linkage; but it will be shown in the following that Mahan's understanding of the exclusiveness of command had logical consequences which did not easily fit his unshakeable belief in the decisive battle as the primary means in naval warfare.

Azar Gat has pointed out that - by historical coincidence - there *were* striking parallels between land and sea warfare in the era of the great conflict between Britain and Napoleonic France. Specifically, Napoleon and Nelson stood as representatives of a new kind of tactics that sought to break with the "indecisiveness" of eighteenth-century warfare by seeking a decision in battle.⁴⁹ Mahan studied the history of this last great period of naval warfare in detail, and it was a logical step to find in it conclusive proof of the "eternal" principles of war he derived from Jomini. He ignored the

fact that such decisive warfare was made possible a century earlier by technologies that had since changed beyond all recognition. Above all, after the introduction of the ocean-going submarine in 1910, his concept of command of the sea was being literally undermined by the ability to evade it.

Yet that concept itself had consequences that were incompatible with Mahan's emphasis on the decisive battle. According to Rosinski, Mahan's most important insight into the peculiar nature of war at sea was his recognition of the *exclusiveness* of command. Although in historical reality command had often been in dispute, Rosinski pointed out that the *concept* of command and its indivisibility which is to be found in Mahan, must serve as the point of departure for a theory of naval strategy.⁵⁰ From it Mahan derived the "fundamental principles of all naval war, namely, that defence is insured only by offence, and that the one decisive objective of the offensive is the enemy's organized force, his battlefleet."⁵¹

Yet this did *not* necessarily imply that command could only be gained through victory in a decisive battle. As Julian Corbett was to point out:⁵²

The attempt to seek the enemy with a view to a decisive action was again and again frustrated by his retiring to his own coasts, where either we could not reach him or his facilities for retreat made a decisive result impossible. [...] It is a curious paradox, but it is one that seems inherent in the special feature of naval war, which permits the armed force to be removed from the board altogether.

Thus, to quote Rosinski again, "the dynamic strategic problem" of naval warfare is the "*control of the enemy's armed forces*", and not necessarily their destruction. «What we wish to command or to control is not 'the sea', but our opponent...[...] 'Command of the Sea' thus in the last resort rests upon the power to blockade".⁵³

From Mahan's insight into the indivisibility of command, we therefore arrive at the conclusion that *blockade* is the primary means in naval warfare. It is a means of both exercising and attaining command. Battle, which for Clausewitz was the only means and inherent in his definition of war

itself, was much rarer at sea. Since the consequences of defeat were so much more decisive, the weaker fleet would prefer to retire to harbour and to act as a "fleet in being", a permanent threat to the blockader if he did not maintain the strength of his forces. Battle was a *secondary* means of gaining command which would only occur if the weaker side believed it had a good chance of victory.

In the age of sail, accidents of wind and weather blurred this picture, providing opportunities for the enemy to evade the control of the blockader and to dispute his command. The Royal Navy seldom held absolute command in its wars with France; and it exercised its control of the enemy through smaller vessels - to a much greater extent than Mahan was willing to recognize.⁵⁴ But the introduction of steam propulsion in the mid-nineteenth century did serve for some decades to move the realities of naval warfare closer to the concepts of theory. "When steam propulsion finally became universal, the advantage formerly going to the weather-gage passed to a degree, but to a degree only, to the fleet possessing greater speed. [...] A margin of material superiority became a more dependable guarantee than formerly of supremacy in the theatre of war."⁵⁵ The weaker side would have no illusions about what it could achieve against a stronger opponent; hence it would run from battle and submit to the control of the stronger.

Surprisingly perhaps to those who might still consider Mahan the only true prophet of naval strategy, conclusions close to those above were clearly drawn by the strategists whom he most consistently criticized, the French *Jeune école*. In 1882, Admiral Théophile Aube surveyed the capabilities of modern navies and envisaged the following consequences of steam, armour and torpedos:⁵⁶ 1) Given technological equality, the numerically stronger fleet was assured of victory. 2) Since the weaker fleet would foresee its defeat, battle would have to be forced by the stronger. 3) Since the relative strengths of the fleets would be known at the outbreak of hostilities, the empire of the sea would pass to the fleet with the greatest number of armoured battleships. 4) No more battles for the empire of the sea would be fought. 5) Maritime war would cease altogether.

Aube believed this to be an absurd conclusion. The *Jeune école* sought to avoid it by embracing the opportunities opened up by new technology. In their enthusiasm they over-estimated the effectiveness of torpedo boats. It was only the invention of the diesel-driven submarine thirty years later that made their vision of an all-out war on maritime commerce possible. Yet, as both Theodore Ropp and Hervé Coutau-Bégarie have pointed out, their description of the paralysis of the great battlefleets and the coming war on commerce was an accurate prophecy of the events of 1914-18.⁵⁷ These French strategists drew conclusions from their analysis of contemporary technological developments that Mahan was unwilling to deduce from his own theoretical insight into the exclusiveness of command.

The Prussian School Meets Strategic Reality: The Honing of German Naval Doctrine, 1891-1894

How did the Prussian school fare in adapting its strategic axioms to the realities of modern naval warfare and to the defence needs of Germany? The answer is: fairly well, for a while.

The central figure in this process was *Kapitän zur See* Alfred Tirpitz. He became Chief of Staff at the Baltic squadron in 1891; then, from 1892 to 1895, he exerted an enormous influence on the intellectual development of the navy in his capacity as Chief of Staff at the High Command. His two most important - and completely distinct - contributions to the emergence of the German school of naval thought were the adaptation of its abstract concepts to the realities of naval warfare and the adoption of Mahan's ideology of sea power.

During 1891 Tirpitz wrote three memoranda on organizational and theoretical topics.⁵⁸ The thrust of his arguments can be summed up in one sentence: all aspects of the navy's activity had to be directed towards preparing it for the strategic offensive that was to culminate in a decisive battle. This idea was almost certainly not derived from Mahan; "command of the sea" and "sea power" do not yet get a mention. Nor can they be seen

as the culmination of his twelve years' work at the Torpedo Section; his belief in the central importance of battle on the high seas can be documented well before 1877.⁵⁹

There are strong grounds for tracing Tirpitz's obsession with battle back to the same source as Stenzel's: Clausewitz. A memorandum he wrote in September 1877 opens with a statement that he had made six years earlier and that he was to repeat in 1891 and 1894:⁶⁰

It is characteristic of battle on the open sea that its sole goal is the annihilation of the enemy. Land battle offers other tactical possibilities, such as taking terrain, which do not exist in war at sea. Only annihilation can be accounted a success at sea.

Caprivi said the same in 1888. This statement of first principles, to which Tirpitz apparently was very much attached, certainly echoes the early chapters of *On War*.⁶¹ More revealing is the way in which the memorandum of February 1891 approaches the question of how to use the navy in a European war. The matter could be studied from below, starting with the individual ship and working upwards through tactics. But Tirpitz prefers to treat it from above, from politics through strategy, starting with the "well-known thought of Clausewitz, that war is the continuation of politics, an approach which will have to embrace our whole treatment of naval strategy." He repeated this in the April memorandum; and both there and in Service Memorandum IX three years later, Clausewitz is named as an authority and quoted at length, specifically on the need for the concentration of force. In fact, even after he has read Mahan, Clausewitz is the *only* military authority whom Tirpitz quotes directly.

Now, there is nothing exceptional about a nineteenth-century German officer from a patriotic Prussian family reading and quoting Clausewitz.⁶² Even if Tirpitz had never heard of him before, he would have received a full dose of his maxims for two hours each week when he attended Stenzel's (compulsory) lectures at the *Marine-Akademie*. In this respect he was a typical representative of the Prussian school of naval thought:

whatever intellectual activity there was in the navy during its first twenty years drew its inspiration from the Prussian army and Clausewitz and not, to any noticeable degree, from foreign sources such as the emerging Blue Water school or the *Jeune école*.

In Tirpitz's case, it is especially interesting that he stuck to his dogmatic insistence on the decisive battle between battleships even after twelve years of hard work on sea-going torpedo boats. In the memorandum of February 1891, he explicitly stated that the navy should gratefully transfer as much as at all possible from the essence ("Wesen") of the glorious army; at the same time, it should seek to judge where the peculiarities of naval warfare began. The experience of the Torpedo Section had shown that the systematic treatment of tactical matters over a period of years could produce results. Once the question of the navy's use in a European war had been determined by working downwards from politics through strategy, this well-trying method should be used to develop the necessary tactics for the whole navy from the ship upwards.

This was precisely the manner in which Tirpitz proceeded as Chief of Staff at the High Command. Like many of his contemporaries within the officer corps, it was axiomatic for Tirpitz that the main task of the navy in a European war was to prepare for a decisive battle on the high seas. In 1891 he is apparently in favour of battle under *any* circumstances. This insouciant disregard for the consequences of defeat can be explained by the widespread belief that the next war would be as brief as the last one. Tirpitz had at least as strong an institutional motive as Caprivi had had in 1884 to make sure that the navy "bought itself into" the nation's history. His most important achievement during the following years of manoeuvres and evaluation was to *define the conditions* under which the strategic offensive should be undertaken. In other words, he specified when it could serve a useful military purpose - which suicide for institutional motives did not.⁶³

Tirpitz adapted the abstract dogmas that had not hitherto been connected to the practical aspects of operational planning, and in so doing, he came close to an understanding of the peculiarities of naval warfare that

were outlined in the section above. If that had been all he did for the German school in Service Memorandum IX, it would have been a useful and impressive achievement; unfortunately it was not, as will be shown in the next section.

For the purposes of this section, the crucial passage of Service Memorandum IX is the following. It takes as its point of departure the axiom that in Tirpitz's thought can be traced back to 1871 and which is probably derived from Clausewitz:⁶⁴

Land warfare seeks primarily to reach its objective through the destruction of the enemy's force and through the occupation of enemy territory. To prevent the latter, the enemy army will generally seek to do battle at the outset and thereby risk annihilation. However, the enemy fleet as an object can remove itself completely from the strategic offensive, and the mere presence of a fleet in enemy waters does not by any means mean absolute command of the sea. To possess this, forces have to be divided and spread; but, on the other hand, this should not occur as long as the enemy fleet is still present and ready for battle, or in other words as long as it has not been decisively beaten. Only then can a situation be brought about near the enemy coast which can be considered analagous to the occupation of enemy territory in land warfare. The whole effort of the strategic fleet offensive must therefore be directed towards forcing a battle as soon as possible.

In the following paragraphs, Tirpitz recognized, as had Aube in 1882 and as Julian Corbett was to do several years later, that a numerically weaker opponent would probably remain in harbour, waiting for more opportune circumstances.⁶⁵ This, Tirpitz believed, would force the attacker to use some of the means normally applied after command had been won (in other words to *exercise* command) in the hope of drawing the enemy out to do battle. The peculiar nature of naval warfare did however make it possible that he would refuse to do so and would remain in harbour, acting on events through the mere fact of his existence (in other words as a *fleet*

in being). For these reasons, the attacker would need a considerable numerical superiority over the defender. The greater that superiority, the greater the degree of command would be, even if the defender were to maintain his fleet intact in harbour. Tirpitz concluded that the experience of the age of sail showed that a numerical superiority of at least one third was a necessary precondition for the fleet offensive.

He continued by stating that naval history had shown that squadron warfare was the most effective form of fleet offensive and that battle was its decisive element. He advanced several rather specious arguments against the *Jeune école* who had had the temerity to think otherwise. The only alternative to the struggle for command was inactivity, the passive waiting for the enemy that Tirpitz described as morally self-destructive. In the light of later events, it is important to note that in 1894 he unequivocally condemns the strategic defensive, indeed he does not seem to believe that there even exists such a mode of naval warfare.⁶⁶

The importance of Service Memorandum IX can hardly be overrated. It created the theoretical framework within which naval officers thought for the next twenty years.⁶⁷ It is especially interesting to note that in defining the necessary preconditions for the strategic offensive, Tirpitz had taken note of certain peculiarities of naval warfare that were also observed by the *Jeune école*, Corbett - and were at least potentially deductible from Mahan's more random utterances. The great advantage of his definition of the necessary numerical superiority was that a definite picture of Germany's naval needs could be drawn up on the basis of it. An appendix to the memorandum proposed a two-squadron battlefleet of 17 ships of the line, flanked by six flotillas of torpedo boats, six large and twelve small cruisers.

1894 was the year in which the military convention between France and Russia was turned into a fully-fledged alliance. Faced with the prospect of a two-front war, the task of the navy was fairly easy to define: it was to prevent the allied navies from gaining a crushing superiority by combining the strengths of the Russian Baltic and French Northern fleets. Given Tirpitz's definition of the necessary numerical superiority, it followed that

the German fleet must be one third stronger than the largest of these two fleets. France and Russia had sharply increased their naval expenditure in their rivalry with Britain. If the German navy was to be able to fulfill the tasks assigned to it in the scheme of national defence outlined by Moltke, Stosch and Caprivi, it had to follow suit.⁶⁸

There was therefore considerable justification behind the pleas of the High Command to the Imperial Navy Office. They asked for an accelerated construction programme in accordance with the demands of Service Memorandum IX, concentrating on battleships for use in European waters. On 14 February 1895 Tirpitz sent two memoranda to Hollmann, State Secretary of the Imperial Naval Office. One of them is exclusively concerned with the strategic situation in a war with France and/or Russia and paints a gloomy picture of what it will be like in a few years time if nothing is done to catch up the lead of the potential enemies⁶⁹ Hollmann ignored this appeal, and a few weeks later Tirpitz gave up and asked to be transferred to active service. His friends from the "torpedo gang" remained at the High Command and continued to press its demands. These culminated in a new memorandum in November, in which it asked among other things for the construction of 12 battleships and three armoured cruisers.⁷⁰

This lucid document was the fruit of Tirpitz's three years of systematic work at the High Command. It took as its point of departure the political constellation - the fact that Germany would have to face the allied might of France and Russia - and analyzed the navy's needs in the light of the operational doctrines of Service Memorandum IX. Although it recognized that the Kiel canal now provided a means of concentrating against one enemy at a time, it also pointed out that its value would decline once even the united German fleet became incapable of facing either of the potential enemy fleets. The simple fact of the matter was that France and Russia were building faster than Germany; by 1901 the Imperial Navy would be hopelessly outnumbered. The consequences for German naval construction were easy to draw:

Given the present political constellation in Europe, if our planned strategic defensive is to have the likelihood of success, the German fleet must be larger than the strongest of the two northern fleets of our probable enemies. Since we cannot prevent the Danish fleet from joining one of our adversaries, such a superiority must be one of at least 30% if after a victorious battle our fleet is to be able to oppose the second enemy with an effective defensive.

The memorandum also stated that a long-term construction programme would be the most rational means of building up to the necessary level of strength.

Tirpitz was asked to comment on these proposals for the benefit of Wilhelm and did so in a note of 3 January 1896.⁷¹ Not surprisingly, he agreed entirely with the memorandum. But by this time, the reasons he gave for the expansion of the fleet were drawn less from the operational doctrines of Service Memorandum IX and more from the second element he had injected into the German school in that document: his Mahanian ideology of sea power. It is to this increasingly irrational aspect of German naval thought that we must now turn.⁷²

The German School and Mahan the Imperialist

Mahan was not just a strategist who adapted Jominian concepts to the study of naval warfare. Together with Admiral Philip Colomb and John Knox Laughton, he was also responsible for the revival of interest in the scientific study of naval history. By placing his narrative of events at sea within the broader framework of political developments, he drew attention to the workings of a historical force, sea power, which historians had hitherto ignored.

But he was without doubt most influential in his role as propagandist for an ideology of imperialist expansion. Mahan's imperialism, social darwinism and racism are often disregarded by those who are most

interested in his contributions to naval thought and history;⁷³ his imperialism is implicitly dismissed as irrelevant when he is described as a "child of his times", even though he described himself in 1900 as "[...] the earnest advocate of oversea expansion [...]".⁷⁴ But it was precisely as a child of his times that he most influenced his times, by infusing into the imperialism of the 1890s a strong current of navalism.⁷⁵

The reason why we cannot ignore Mahan's imperialism here, is that *it also affected his strategic concepts*, or rather gave them a double meaning. The first chapter of *The Influence of Sea Power on History*, with its discussion of the elements of sea power, was the most influential piece Mahan ever wrote. It is a cleverly disguised navalist tract, permeated with his "theory of national prosperity and destiny founded upon a programme of mercantilistic imperialism".⁷⁶ It provided a checklist against which navalist agitators everywhere could tick off their own national assets; but it was divorced from his historical analysis of the role sea power actually played in the wars he was describing.⁷⁷

Most importantly, as Rosinski pointed out, "Mahan fell into the fatal error of appearing to make [...] [the] peaceful utilisation [of the sea] dependent upon its military control, and of paralleling 'control of the sea by maritime commerce' with 'control of the sea by naval supremacy.' [...] Mahan] was induced to make the conquest and retention of oversea markets dependent not so much upon the economic ability of the individual merchant as upon the power of his state to open and retain his markets for him by force."⁷⁸ His claim that economic expansion overseas must be protected by the military force of the state, made up the most powerful argument in the navalist armoury: the state must possess a fleet "commensurate with the size" of its merchant navy, its colonial trade, its "sea interests", or whatever.⁷⁹

"Command of the sea" is a military concept that is only relevant to the study of war because it implies the exclusion of the enemy from the use of the sea *by force*. Mahan extended its use into the study of *peacetime* international relations.⁸⁰ Similarly, his use of the term "sea power" implies that navies exert a force in peacetime which benefits the growth of over-

seas trade; yet this force somehow seems to work independently of the role that the fleet would be able to play in a war. In the final analysis, sea power, too, can only be defined by measuring the potential of a specific fleet, perhaps enhanced or diminished by its geographical position - relative to the same factors affecting the *military* potential of its enemies. Any other definition of sea power turns it into a magical force which it is impossible to define.

This aspect of Mahan's thought polluted the German school from the mid-1890s and for decades to come.⁸¹ In Germany, perhaps more than anywhere else, the rationales that Mahan the propagandist of expansion devised to justify the need for a large US Navy, were taken as a description of strategic realities. The belief that only sea power could guarantee the economic and political future of the Reich supplanted the rational calculation of potential threats and military capabilities. Together with the initial influence of Clausewitz on the Prussian school, this ideology of sea power represented the second major influence on the formation of the German school of naval thought.

Although Tirpitz does not mention Mahan in Service Memorandum IX, it contains certain passages which prove conclusively that he has been reading his work since he wrote the three memoranda of 1891.⁸² They are concerned with providing arguments, both historical and contemporary, to show what beneficial effects a navy can have in peacetime. There is *no logical connection* between these claims and the analysis of the preconditions for the strategic offensive referred to in the previous section. The latter were concerned with the use of the navy in a European war; the new arguments drawn from the ideology of sea power claimed that a powerful fleet in European waters would also provide the necessary «backbone» for the peacetime activities of Germany's world trade and industry, even its high seas fisheries, global transportation and colonies. And:⁸³

"Only when a nation has understood that a fleet creates economic advantages for the fatherland even in peacetime, [...] will it possess the necessary understanding for the nature and purpose of a navy."

Tirpitz later gave this interpretation of the magical peacetime effects of a battlefleet a name. He called it "the political importance of sea power" and distinguished it from "the military importance of sea power". The latter was based on the strategic analysis of the needs of the navy in a war with designated opponents; it continued to draw on the doctrines developed since 1891. The former interpreted the navy as "nothing more than a function of our sea interests."⁸⁴

It is not surprising that Tirpitz increasingly stressed the political importance of sea power at the same time as he began to consider Germany's chances in a war with Britain. The doctrine of the strategic offensive which he had developed in Service Memorandum IX, provided a perfectly clear answer to this problem: the German fleet had no chance in a war against the overwhelmingly superior Royal Navy. This was the conclusion he drew in a letter to Stosch of 13 February 1896. But instead of giving in to despair at the thought of Germany's impotence, he sought solace in the alternative interpretation of sea power.⁸⁵

Our policy completely lacks the concept of the political importance of sea power. But if we have any intention of moving out into the world and of increasing our economic strength through the sea, we will be erecting a completely hollow structure if we do not at the same time provide ourselves with a certain measure of naval strength.

What he believed such strength could accomplish, was apparent in his analysis of the strategic situation with regard to Britain. Although he had just described it as almost hopeless, he was convinced that once Germany had acquired "two to 3 modern [battleship] squadrons with the necessary cruisers", it would "suddenly" become apparent to the City of London (who in reality determined Britain's policies) that this was a state that had to be accommodated in all matters. What Tirpitz did not explain, however, was precisely *how* such a fleet would alter the strategic relationship. It would presumably still be inferior to the Royal Navy, so from a military point of view, in a war not much would have changed. Service Memorandum

dum IX stated explicitly that an inferior fleet would be condemned to the morally self-destructive strategic defensive. Even were the three modern squadrons "suddenly" to appear, the Royal Navy would still possess a measure of strength which, *according to Tirpitz's own theory*, would force the German fleet to remain in harbour and submit to the blockader's control. In addition, Tirpitz could hardly be unaware of what his distant cousin, chancellor Caprivi, had pointed out to the Reichstag in 1893: that a western sea power would probably not bother to institute a close blockade of the German coast, but instead bottle up the entrances to the North Sea in a wide blockade.⁸⁶

It is hard to see why "the City" should force the British government to be more accommodating, even after German naval strength had been increased. The strategic situation would stay the same as long as the latter remained in a position of significant numerical inferiority. This discrepancy between Tirpitz's "political" and "military" interpretations of sea power can be followed down to the Risk Theory in 1900 (see below). Mahan used the ideology of sea power to justify the further expansion of the navy; it might not be strictly necessary for national defence, but it could serve as an instrument of world power. Tirpitz went further than Mahan, however, in giving increasing priority to the political importance of sea power over its military role - to the extent that he chose to ignore the doctrines that he had evolved himself during the first half of the decade. A navy's deterrent effect in peacetime was apparently stronger than its uselessness against a superior opponent in a war would lead one to believe.

How can one explain this slide *away* from determining the national defence needs of the navy in the light of precise operational doctrines and *towards* a programme of potentially unlimited expansion based on the alleged «political» importance of sea power and justified by the battlefleet's role as a "function of sea interests"?⁸⁷

The most likely explanation would seem to be the strength of the institutional and personal motives driving Tirpitz. Like Mahan, Tirpitz was searching for arguments in favour of a stronger navy, but there was more at stake for him. If we consider the events of 1895 from the point of view

of the High Command, the "torpedo gang" and Tirpitz himself, the sense of personal and professional failure must have been overwhelming. The Imperial Navy Office had ignored the patently obvious need for naval expansion to meet the most basic of operational tasks. Powerful figures had intimated to Tirpitz that he had a great future ahead of him; yet Hollmann seemed secure in Wilhelm's favour and continued to ask the Reichstag for cruisers. Rather than face further humiliation and the repudiation of three years' hard work, he decided to return to active service.

When the opportunity arose to restate his case towards the end of the year, Tirpitz cast around for whatever new arguments he could find. For the first time, Britain swims into his ken in his comments on the High Command's memorandum of November 1895. This is *before* the Kaiser's telegramme to Kruger first raises the spectre of war between the two countries.⁸⁸ It is the ideology of sea power which suggests the argument that a stronger fleet will serve as a political power factor in relations with Britain.⁸⁹

Even the strongest European sea power [Seestaat] would be more accommodating towards us if we were capable of throwing 2-3 well trained squadrons [of battleships] into the political scales and, if necessary, into the scales of a conflict. We would never achieve that with overseas cruisers.

We have already seen how Tirpitz wrestled with the strategic problem of fighting the Royal Navy once the Transvaal crisis gave matters a more serious complexion, and how he consoled himself with the belief that the increased political importance of "two to 3 modern squadrons" would somehow alter the situation. We shall see below that nothing had really changed four years later when the Risk Theory was enunciated in the preamble to the second Navy Law of 1900.⁹⁰ The identification of the need for a "political power factor" against Britain simply served the interest of the navy in building as many ships as possible. This undefinable goal would always remain far enough ahead to justify further expansion.

In the same memorandum of 3 January 1896 Tirpitz used another new argument that can also be found in a letter to Stosch of 21 December.⁹¹ He now claimed that the economic and the political effects of the fleet programme would also prove to be a useful countermeasure to the socialist movement. In its best-known formulation, this read:⁹²

It is my opinion that in the coming century Germany will rapidly decline from its present position as a Great Power unless the further development of its general sea interests is taken in hand energetically, immediately and systematically. Not least because the great new national task and the economic gains flowing from it will also work as a strong palliative against educated and uneducated Social Democrats.

An impressive interpretative edifice has been erected on the foundation of Tirpitz's views on the social question⁹³. But in the context of this article I would suggest that this famous quote provides less of an insight into the peculiar political, social and structural problems facing Germany than it does into Tirpitz's willingness to grasp at any straw that could serve to relaunch his faltering career. Just as the ideology of sea power led him to identify Britain as a state against which it was necessary to possess a certain measure of "political" sea power, it seems likely that he also borrowed this thought from Mahan.

In August 1895, Freiherr Curt von Maltzahn, Tirpitz's boyhood friend from Frankfurt an der Oder, sent him a letter in which he discussed the role sea power had to play for the future of Germany.⁹⁴ Obviously replying to a previous query from Tirpitz, he stated that of course he had read Mahan's "French revolution and empire" (which goes to show that they both regarded the American as an authority in historical matters). In the rest of the paragraph Maltzahn is at pains to demonstrate that he shares Tirpitz's interpretation of the relationship between the navy and Germany's sea interests. He finishes it with the following sentences:

Germany's future as a world power depends upon these peacetime activities of our navy. The fleet is called upon to play an important role in solving the social question. It alone can open the roads for the fruitful expansion of the forces of our people and prevent Germany from either choking on its excess population or bleeding to death through useless emigration.

This argument was common enough among nationalists at the time. Max Weber, for example, used it in a newspaper article in December 1897, explaining why he supported the First Navy Law. In a speech he gave at Mannheim on 13 December he prophesied that the time was rapidly approaching when power, naked power alone, would decide what share of the world's markets a country could exploit for its own benefit. Germany's workers would then have to make their living exclusively within the area that the capital and the military might of their fatherland could provide for them.⁹⁵ Maltzahn gave the thought its navalist formulation: it was the role of the fleet to provide the necessary backbone for the economic expansion that would provide Germany's rapidly growing population with jobs and prosperity. The similarities with Mahan's interpretation of the peacetime role of sea power are obvious.

But Mahan had also commented on the domestic *political* benefits that would flow from the increasing rivalry between the great powers. In the November 1894 edition of the *North American Review* he published an article on "Possibilities of an Anglo-American Reunion".⁹⁶ Here, with his usual verbosity, Mahan saw the most important consequence of the United States becoming a naval power - not in a pledge of peace or international cooperation:

Rather in the competition of interests, in that reviving sense of nationality, which is the true antidote to what is bad in socialism, in the jealous determination of each people to provide first for its own, of which the tide of protection rising throughout the world, whether

economically an error or not, is so marked a symptom - in these jarring sounds which betoken that there is no immediate danger of the leading peoples turning their swords into ploughshares - are to be heard the assurance that decay has not touched yet the majestic fabric erected by so many centuries of courageous battling.

It is not unlikely that Tirpitz kept himself informed of the highly topical political commentary that flowed from the pen of the historian who perhaps influenced him even more than Treitschke had. And certainly the similarities between the medicinal metaphors ("antidotes" and "palliatives" being used against the *socialist* movement, not towards solving the *social* problem) are so similar as to be hardly coincidental.⁹⁷ There is certainly a case to be made for the interpretation that Tirpitz, as he did when he identified the need for sea power against Britain in the same memorandum of 3 January, was using whatever arguments he could come up with to amplify his demands, tilting the balance away from the military need for a two-squadron battlefleet and towards the undefinable "political importance of sea power."

From now on it becomes impossible to disentangle Tirpitz's personal and institutional motives from the ideology of sea power. It is pointless to ask whether he really believed that the navy was a "function of sea interests", that a «risk fleet» would provide a necessary "political power factor" against Britain or that the new national task would be a "palliative against educated and uneducated Social Democrats". For the rest of his life nothing served his interests better than to believe it really was so, and to convince others that he was right. His well-founded pleas for the construction of a battlefleet that would serve the needs of national defence had got him nowhere. These new arguments, put forward just as public opinion began clamouring for a more assertive *Weltpolitik*, served to relaunch his career in 1897, making him one of the most powerful men in Germany for the next two decades, and allowing him to mobilize vast sums of money to build the world's second largest fleet. Success such as this would have made even the most sceptical of men turn a blind eye to the inconsistencies

behind the idea of a "risk fleet" directed against Britain. When it failed both to deter Britain from entering the war and to break the Royal Navy's hunger blockade, Tirpitz did all he could to lay the blame elsewhere and to convince the world that he had been right all along.

* * *

At the theoretical level, the German school found its leading exponent in Curt von Maltzahn. He had attended the three courses at the *Marine-Akademie* between 1879 and 1882 and was described by Kirchhoff as one of Stenzel's leading pupils, who carried on where he had left off. Maltzahn taught at the MA from 1895 to 1900, when he became its director. It has been stated that he differed significantly from Tirpitz in strategic matters and that he was a partisan of the *Jeune école*.⁹⁸ In fact, he was just as Mahanian as his old friend. He believed equally strongly in the ideology of sea power and in the necessity of eventually creating a battlefleet against England.⁹⁹ He did, however, want to proceed in a different manner, by first creating a fleet of overseas cruisers to speed up the growth of Germany's "sea interests".¹⁰⁰ As those interests increased, the battlefleet in home waters would grow "commensurately" until it was strong enough even to face up to the Royal Navy.

(It is fascinating to speculate on whether history might not have followed a different course had Maltzahn's project been presented to Wilhelm in 1897 instead of Tirpitz's. It shows that the Tirpitz Plan was not the only necessary outcome of Mahan's influence on German navalism, and it says something about the importance of individuals in history. If Germany had spent ten years pouring money into cruisers, Wilhelm would have been happy, the nationalists in the Reichstag content - for a while - and the open rivalry with Britain would have taken longer to develop. With the benefit of hindsight, however, it seems likely that the growth of extra-parliamentary radical nationalism eventually would have pushed a Maltzahn Plan in the direction it wanted to go anyway).¹⁰¹

At the *Marine-Akademie*, Maltzahn's lectures on naval strategy drew on two sources, Clausewitz and Mahan.¹⁰² From them he derived his most important lesson, that in naval warfare only the clash of battlefleets is decisive. To the weaker side, he recommended the "defensive battle", in which, although beaten himself, he destroyed so much of the enemy that he would have to withdraw from the war, if only out of fear of neutral powers. Maltzahn's study of the "defensive battle" was his attempt to resolve the same contradictions that Tirpitz faced, in effect providing the "risk fleet" with a tactical theory.¹⁰³ It founders on the same rock as the Risk Theory itself, the doctrines of Service Memorandum IX,¹⁰⁴ and it is not necessary to consider it in detail here.

More important for our purposes and for the further development of the German school of naval thought, was that Maltzahn transformed himself from a Mahanian imperialist into a disciple of Friedrich Ratzel's "political geography".¹⁰⁵ That was not such a big step to take, but it did ensure that German naval thought now could travel freely to the wilder shores of expansionist ideologies. Henceforth, there would be literally no *limit* to what the German school believed navies could, and therefore should, accomplish. Its first major attempt to swim round the world came with the implementation of the Tirpitz Plan towards the end of the century.

The Tirpitz Plan

With the accession to the throne of Wilhelm II in 1888, the navy had acquired an enthusiastic and powerful advocate at the very highest level. From then on, the question was not whether the fleet would grow in size, but what form the increase would take. This turn of events was part of an international trend. Britain opened the door on the era of the «new navalism» by sharply increasing the Admiralty's budget in 1889 and 1893. Mahan's writings were of decisive importance in turning the imperialism of the age towards the sea; the publication of *The Influence of Sea Power on History* in 1890 provided navalists everywhere with an arsenal of arguments in favour of big battlefleets.

The peculiar aspect of the situation in Germany was the key role of the emperor in the political system designed by Bismarck. This, however, did not mean that the adoption after 1897 of the Tirpitz Plan - the long-term construction of a battlefleet directed against Britain¹⁰⁶ - was inevitable. It resulted from the conjunction of two political forces that did not subscribe to any particular strategic concept (other than that Germany should have a big navy that could rival Britain's), with the ideology of sea power that was grafted on to the German school of naval thought.

Wilhelm's "personal rule" was the first of these necessary preconditions. He himself was certainly inspired by Mahan, but he did not develop a systematic understanding of strategy. He simply wanted more ships.¹⁰⁷ Whether they were cruisers or battleships was of secondary importance; and he would place his considerable political weight behind the man who could cajole the Reichstag into giving him what he wanted. His most important intervention in the course of events was to choose Tirpitz for the job as State Secretary of the Imperial Navy Office and to provide him with the latitude he needed to carry out his plan.¹⁰⁸

The second political precondition was the will to overseas expansion and increasing anglophobia of the German bourgeoisie, its intellectual elite and its representatives in the Reichstag. If they had been against imperialism and navalism, there would have been no fleet, whatever the emperor or

his ministers said.¹⁰⁹ A majority of the Reichstag liberally supported the battlefleet against England for fifteen years; but they would equally willingly have voted for a differently structured fleet if the competent authorities had told them that a strong contingent of cruisers was necessary to defend Germany's overseas interests against British encroachments.

The Kaiser, chancellor Bülow and broad sectors of the population all shared Tirpitz's *political* objective of forcing the British empire to recognize Germany's equality as a world power. But it is highly unlikely that they understood the *strategic* calculations behind the "navy against England". They certainly never grasped the long-term nature of the plan or the diplomatic restraint it required.¹¹⁰ In the final analysis, the question of the rationality or otherwise of the Tirpitz Plan - its chances of success or failure - rests on the strategic assumptions underlying it. Therefore, the ideology of sea power was the third necessary precondition for the course of naval expansion that Germany entered on at the turn of the century.¹¹¹

Since the Second World War, most historians have concentrated on analyzing the political assumptions of the Tirpitz Plan. In the following pages, I shall attempt to show that the political objectives of the plan rested on strategic foundations which, *in the light of Tirpitz's own theory*, were irrational. The very adoption of Tirpitz's concept of a "fleet against England" was an irrational act; no amount of political acumen could have improved its chances of success. An analysis of its strategic foundation carried out *within the conceptual framework of the German school itself* is sufficient to show that the search for the irrationality of the Tirpitz Plan begins and ends at its military base.

The Risk Theory and the "Political Importance of Sea Power"

In the years between the Kruger telegramme of 1896 and the passage of the second Navy Law in 1900 the only development in German naval thought was that the "political importance of sea power" supplanted its "military" interpretation. The defining moment in this process was the

interview Tirpitz had with Wilhelm II on 15 June 1897.¹¹² He had succeeded Hollmann as State Secretary a few months earlier. On his return from East Asia he found that the naval leadership at Wilhelm's behest had worked out a construction programme very similar to the one the High Command had presented in its memorandum of 28 November 1895.¹¹³

The great difference between these proposals and Tirpitz's lay in the *opponent* against which the construction programme was to be directed, and the *reasoning* behind it. On 9 April 1897, Wilhelm had decreed that the naval authorities were to cooperate in drawing up a construction programme for a fleet that was to be half the size of the combined Franco-Russian fleet. Although the yardstick was slightly different, such a proposal was still in accordance with the ideal of constructing a fleet capable of acting according to the operational doctrines of Service Memorandum IX.: "That is to say, it must be capable of maintaining an *unconditional* superiority over the Russian Baltic fleet and of successfully challenging the French 'Northern or Channel fleet' when sent into action in the North Sea."¹¹⁴

Tirpitz, on the other hand, proposed to Wilhelm on 15 June that the basis of the construction plan should be the "strengthening of our political power and importance against England:"¹¹⁵

Since any effective form of transoceanic or cruiser warfare against England is completely ruled out by our lack of overseas bases and because of Germany's geographical position - and as English naval officers, the Admiralty etc. are fully aware of this - all depends, from the political point of view as well, on the battlefleet between Helgoland and the Thames.

In the memorandum he wrote in July,¹¹⁶ he returned to the dual aspect of the problem. It was by basing the construction programme on the worst case - a war with Britain - that one could best insure against other possible constellations. But in addition: "England is also the opponent against which we desperately need a certain measure of sea power as a *political power*

factor." The rest of the memorandum concerns itself with showing that Germany's military situation with regard to Britain dictates that it station as many battleships as possible between Helgoland and the Thames, and that such a fleet would also serve its needs in a war with France and/or Russia.

Yet Tirpitz's treatment of these matters obscured the most important consequences of changing both the designated opponent and the reasoning behind the buildup. For both these steps would significantly affect the new battlefleet's *military* potential.

To begin with, when seen exclusively from the perspective of numerical fleet ratios, it was correct that measuring the new battlefleet against the Royal Navy would also cover Germany's needs in a war against the Dual Alliance. But from a *geographical* perspective the turn against Britain meant exchanging an exceptionally favourable interior line that enhanced the effectiveness of the German fleet, for an exceptionally unfavourable position with regard to the Atlantic trade routes on which both countries depended; and that would diminish significantly its effectiveness in a war against the new opponent.

Secondly, emphasizing the political importance of "a certain measure of sea power" against Britain merely disguised the fact that the proposed fleet against France and Russia *would* be able to act in accordance with the operational doctrines of Service Memorandum IX, whereas a fleet inferior to the British - by whatever factor - *would not*.

It has already been noted that Reich Chancellor Caprivi had pointed out the weakness of Germany's geographical position in a war with a western sea power to the Reichstag in 1893. Astoundingly, Tirpitz himself discussed the matter in the notes he drafted for the interview with Wilhelm on 15 June 1897.¹¹⁷ Lambi's translation and dry comment says all there is to say on this subject:

[Tirpitz:] The operations plan of the High Command bases itself on the strategic defensive in the Baltic and the North Seas. One wants to await the enemy and to defeat him here. The purpose is to keep open our imports. But I believe now that the enemy will not come at once and that we will then wait with our large fleet while France without much loss cuts

off two-thirds to three-quarters of our imports in the Channel and North of England. But this is not my business.

[Lambi's comment:]

This was certainly becoming Tirpitz's business, particularly as the same course of action could be expected from the British. Tirpitz had thus placed his finger on the most vulnerable point in his operational planning against Britain before World War I and on the futility of his own program.

Neither were other authorities on the subject unaware of Germany's geographical weakness. Ratzel alluded to it in 1900; Mahan pointed it out in 1902; and the Chief of the Admiralty Staff, Fischel, attempted to draw Wilhelm's attention to it in a memorandum of 18 August 1910.¹¹⁸

The second consequence, the implicit disavowal of Service Memorandum IX, has hardly been recognized as such by historians. This is because Tirpitz was very successful at concealing it behind a succession of terms which ostensibly assigned a definite role to the projected fleet. He never seems to have admitted that none of these roles was compatible with the operational doctrines he had drawn up in 1894.

The preamble to the first Navy Law of 1898 stated that: "The task of the battlefleet is coastal defence in home waters. [...] When facing the stronger sea powers, the battlefleet will merely play the role of a sortie fleet [*Ausfallflotte*]"¹¹⁹ Two years later the famous Risk Theory was enunciated in the preamble to the second Navy Law, which doubled the size of the projected battlefleet to four squadrons of eight battleships each, plus reserves and armoured cruisers:¹²⁰

[...] it is not necessary that the battle fleet at home is equal to that of the greatest naval power. In general this naval power would not be in a position to concentrate its entire naval forces against us. Even if it succeeds in encountering us with a superior force, the destruction of the German fleet would so much damage the enemy that his own position as a world power would be brought into question.

There is no doubt that Tirpitz wanted to go beyond the first two navy laws, although carrying them out was a massive task in itself. He was also constrained by what he could get the Reichstag to accept and by the need not to cause alarm in Britain about German intentions. His foremost objective was to stabilize the rate of construction at a tempo of three capital ships per year for as long a period as possible.¹²¹ In November 1903 the budgetary department of the Imperial Navy Office discussed the various means of reaching this goal. One possibility was simply to ask for a third double squadron in addition to the two already voted into existence.¹²² This would have stabilized the "three tempo" for years ahead and made any further amendments unnecessary; given certain preconditions, by 1915 Germany would have had a fleet equal in strength to the Royal Navy in the North Sea.

But the political consequences of going for the "sea-defence battlefleet" (*Seewehr-Schlachtflotte*) were daunting. Tirpitz opted instead for a more gradual approach. The amendment to the Navy Law (*Novelle*) of 1906 stabilized the three tempo for a further six years and gave the Imperial Navy Office the financial room for manoeuvre it needed to follow Britain's lead in building Dreadnoughts. The *Novelle* of 1908 reduced the replacement age of capital ships from 25 to 20 years, thus increasing the construction tempo to four capital ships per year until 1912; after that it would fall to two per year until 1917. Tirpitz tried to iron out this wrinkle in the "three tempo" with the *Novelle* of 1912.

As a result of this succession of amendments, Germany was set to have a battlefleet of sixty ships by 1920. Thanks to the twenty-year replacement clause and the operations of a stable "three tempo", it would be self-renewing and beyond the control of fickle Reichstag majorities.¹²³

Is it possible to define the size of the fleet Tirpitz ultimately wanted to build? In November 1905, when weighing the pros and cons of a third double squadron, he also mentions the possibility of eventually arriving at an "offensive fleet".¹²⁴ The mere proclamation that Germany intended to build a *Seewehr-Schlachtflotte* of 50-60 ships of the line, would represent so dramatic an alteration in the balance of power that he believed Britain would be forced to eliminate its rival in a preventive strike. There was therefore no alternative

to proceeding step-by-step. The first, insufficient force would gradually grow into a purely defensive fleet (*bloße Verteidigungsflotte*). This could eventually be superseded by an "offensive fleet"; but such a change of direction could only be contemplated once the defensive fleet was actually afloat. "At the present time, it would be irresponsible openly to proclaim such an objective."

Tirpitz did not specify how large an "offensive fleet" would have to be. He might have been thinking of the six-squadron navy equal to the Home Fleet; perhaps he even contemplated one that could act in accordance with the operational doctrines of Service Memorandum IX. If that is the case, his ultimate goal would seem to have been a monster fleet of perhaps *ninety* capital ships (if the British did not go beyond sixty); in any case, it would have to be one-third stronger than the British Home Fleet for it to be capable of carrying the strategic offensive to the enemy's coast.

It has been pointed out that a fleet larger than the British would have given the Tirpitz Plan the ultimate rationality that the Risk Theory lacked. But whatever Tirpitz's distant goal may have been, there are numerous sources to suggest that he actually *did* believe in the concept of the risk fleet, however he might define the necessary ratio between it and the British fleet in the North Sea. Or, more precisely, he did believe that a weaker fleet could achieve something, and that therefore the danger of a British attack was diminishing as Germany increased the risk.

In 1911, when discussion in the Imperial Navy Office centred on the possibility of passing a *Novelle* to re-establish the "three tempo", one of the new phrases being bandied about was the "prospect of a real defensive chance" (*aussichtsreiche Defensivchance*). Tirpitz now claimed that a ratio of three British capital ships to two German would guarantee a "good defensive chance."¹²⁵ Earlier he had been holding out for a political agreement with Britain based on a ratio of four to three.

Let us first consider the chances of a "risk fleet" from a strategic point of view. As it was originally conceived at the turn of the century, the Risk Theory was based on the notion that a "two-thirds fleet" of 60 capital ships would represent a sufficient measure of sea power to give Britain pause

and deter it from attacking for fear that it would lose its command of the sea. Volker Berghahn has illustrated the rationale behind the calculations of the Risk Theory by extrapolating from Service Memorandum IX¹²⁶:

Instead of writing that a minimum superiority of 33% was necessary for the successful prosecution of an offensive war, it was also possible to reverse the postulate by claiming that the chances of success in a defensive war began with an inferiority of 33%. With the "two to three"-formula, therefore, Tirpitz's calculations were moving along a knife's edge upon which - given the supposition that Britain was the attacker and Germany the defender - there existed a theoretical equality of strength. If the State Secretary were to succeed in tying the British down to such a formula, there existed the possibility of slowly and quietly tilting the balance towards the Reich by improving the German fleet's chances of victory through qualitative improvements.

In fact, the "knife's edge" was a broad gap, because the two postulates in the first sentence are irreconcilable.¹²⁷ A fleet of 60 ships is facing a numerical superiority of 1/3 when it is opposed by 80 enemy ships. That same fleet of 60 ships is numerically inferior by a factor of 1/3 to a fleet of *ninety* enemy ships. According to the doctrines of Service Memorandum IX, a British fleet of 80 ships would be strong enough to gain command of the sea, either by destroying the 60 German ships in battle or - more likely - blockading them when they sought refuge in port. This was hardly compatible with the second postulate that the weaker fleet would have a chance of beating an *even larger* enemy fleet of 90 ships, when it would be facing a superiority of 50%! Neither a German fleet two-thirds the size of the British, nor one three-quarters its size could reconcile these two postulates with each other. Hence, neither would be a "risk fleet".

The doctrines of the Risk Theory are incompatible with the doctrines of Service Memorandum IX. The recognition in the latter document of the helplessness of the weaker side in naval warfare led to the requirement that the strategic offensive should only be undertaken with a sufficient numeri-

cal superiority, and to the denigration of the strategic defensive. The Risk Theory was explicitly based on the acceptance of a numerical inferiority that *according to Tirpitz's own theory* implied submitting to the control of the enemy in war. (This conclusion can be drawn from the doctrines of 1894 alone. It does not take into account Tirpitz's further recognition of the fact that a western sea power could exert that control by means of a wide blockade of the entrances to the North Sea.)

Tirpitz claimed at the time, as well as in his post-war propaganda campaign, that the German navy could reduce the effects of British superiority by gaining an edge in technology and tactics. Besides, there were many historical instances of weaker fleets beating stronger ones in battle.¹²⁸ Several historians have since followed him in emphasizing this aspect of his plans. In fact, as Assmann pointed out in 1939, there were very few such instances of a weaker fleet defeating a stronger, and when they had occurred, they were mostly due to grave errors on the part of the commander of the stronger fleet. It was mere wishful thinking to believe that a significant margin of technological or tactical superiority could be gained over the world's largest and most experienced navy.¹²⁹

So perhaps Tirpitz really was aiming all along at building a navy equal or superior to Britain's, i.e. one that would be in accordance with the doctrines of Service Memorandum IX. This solution would finally give the Tirpitz Plan a sense of strategic rationality. The problem is that what was strategically rational was so obviously *politically* irrational.¹³⁰ It seems hardly credible that Tirpitz was so naïve as to believe that Britain would watch idly as Germany gradually built up the world's largest concentration of naval power on its doorstep - no matter how softly German diplomats trod during the years of the "risk zone".

On the other hand, what was politically rational, i.e. not posing an open challenge to Britain by accepting a fleet that was numerically inferior to the Royal Navy, was, as we have seen, *strategically* irrational. And this can be seen, not with the benefit of hindsight, or by claiming that the Germans never understood Mahan's theories, but by showing that the "military" and "political" interpretations of sea power that existed within the German

school of naval thought, were incompatible with one another.

No wonder Tirpitz laid such stress on the "political importance of sea power" and what it could achieve. On 19 August 1897 he pointed out to the kaiser that the Navy Law merely projected a sortie fleet, "not a battlefleet that would enable Germany to carry out a world policy."¹³¹ Two years later he visited Wilhelm at the royal hunting lodge in Romintern to discuss the prospects for the second Navy Law, which had become a possibility somewhat earlier than planned.¹³² He proposed to double the size of the fleet, so that:

Once the goal has been reached, Your Majesty will possess an effective force of 45 ships of the line plus all the necessary support. Such a powerful force that only England will be superior. But even with regard to England, thanks to our geographical position [sic], our conscription and mobilization systems, torpedo boats, tactical training, planned organizational structure and the unified command of the monarch, we will without doubt have a good chance.

Quite apart from "our definitely not hopeless" situation in a war (a topic upon which he did not elaborate),

England will - for general political reasons, and from the pragmatic point of view of the businessman - have lost any inclination to attack us and will consequently accord Your Majesty such a measure of sea power [Seegeltung] that Your Majesty will be enable to carry out a great world policy.

Without such a fleet Germany would face ruin. It must continue down the road of industrial and commercial development: to keep its population German, to afford to create and maintain a powerful fleet, and because further economic growth - as unstoppable as a law of nature - itself increased its power. The growth of its interests would cause friction with other powers, therefore sea power was essential to prevent Germany's

decline. Tirpitz envisaged a world dominated by four world powers, Russia, England, the United States and Germany. Two of these could only be reached by sea, and therefore "the state's power at sea" must spearhead this development.

This was heady stuff, but it also avoided explaining precisely *how* a battlefleet based in the North Sea could influence the future course of events. This was to be the tone of all of Tirpitz's pronouncements on the subject in the years ahead. The strategic presuppositions underlying the Risk Theory were never discussed in detail, but time and again the propaganda machine of the Imperial Navy Office emphasized the political importance of sea power to Germany's growth to world power.

* * *

The extent to which Tirpitz used the ideology of sea power to paper over the strategic inconsistencies of his policy, can be illustrated by considering some of the explanations historians have given for the ineffectiveness of the Risk Theory.

Wolfgang Wegener's claim that the "cant" of the Risk Theory derived from the influence of continental military thought within the German navy will be considered in the next section. Here we shall start with the completely different explanation Eckart Kehr gave for the half-hearted nature of the Risk Theory:¹³³

The social crisis forced the ruling classes to seek foreign policy successes, but the same social crisis also forced them to avoid the risk of a war that would end their dominance if it were to be lost. They had to be gung-ho and peaceful at the same time. Only when one understands this vicious circle is it possible to explain the enthusiasm aroused by phrases like "world policy" and the bloodless victory that the "risk fleet" was supposed to win.

This same attitude of the imperialist bourgeoisie also found expression in the fleet Tirpitz built: a fleet incapable of taking the offensive against England and beating it near its own coast, but that instead waited modestly in the Helgoland Bight for the English to attack it. According to Kehr, Tirpitz's phrase about the great national task being a "palliative against educated and uneducated Social Democrats" proved that he, too, was strongly influenced by this motive: "to avoid offensive war for social reasons while at the same time enveloping oneself in enormous armaments."

Kehr's book is the most influential study of German imperialism ever written. His analysis of the domestic political foundations of *Weltpolitik* and the navy laws has been integrated into a sophisticated critique of the political and social development of Wilhelmine Germany. The so-called "Kehrite" tendency within West-German historiography has a leftist slant which is due less to Marxist influences than to the necessary process of *die Bewältigung der Vergangenheit* carried out by the first post-war generation of historians.¹³⁴ Although Kehr's interpretations were the major inspiration of this school, the peculiar political circumstances under which the Kehr renaissance took place have tended to obscure an important aspect of his work which is also relevant to his interpretation of the Risk Theory.

It is well-known that Kehr was strongly influenced by Max Weber's sociology. He also obviously admired Weber's political world view, his contemporary critique of Wilhelm II's "personal rule" and, especially, of the dominant role of the junker aristocracy within the political and social system of the *Kaiserreich*. The "Kehrite" school has amplified both Weber's and Kehr's criticism of the "feudal" influence on German politics. More specifically, these historians have further developed Kehr's interpretation of the symbiotic relationship between the "Sammlung" against socialism and the new departures in foreign policy.

What has not received the same degree of attention, however, is the fact that Kehr also explicitly stated his agreement with some of Weber's

sillier political notions. For both, imperialism was a "tragic necessity" dictated by economic and political developments.¹³⁵ Only political quietists and pacifists believed that Germany could stand aside when every other Great Power was building an overseas empire. Realists knew that there was no alternative to participating in the coming struggle for markets and colonies; the burden had to be shouldered, even at the risk of war. Kehr obviously admired Weber's "statesmanlike" attitude towards the fleet programme.¹³⁶ And, most importantly for our purposes, he shared Weber's belief that it was necessary to democratize the Wilhelmine political system and break the junkers' hold on power *so as to be able to pursue imperialism more effectively*.¹³⁷

Over time it was impossible to pursue a capitalistically motivated foreign policy without providing this world policy with the necessary social base.

In Kehr's interpretation, the half-hearted nature of the Risk Theory was due to the social and political constraints imposed by *Sammlungspolitik*. The political compromise between the bourgeoisie and the conservatives, underpinned by the trade-off between industrial and agrarian interests, served to keep the labour movement beyond the pale of political power. It dictated the need for a foreign policy of cheap successes that could be exploited in propaganda; but their pursuit must on no account carry the risk of real conflict. Tirpitz and his brother officers identified Britain as a potential opponent to serve their professional interest in building a large fleet. The *Sammlung* identified Britain as the main international rival of German industry. But the naval policy that resulted from this conjunction of interests was not carried out as ruthlessly as it could have been if it had had the whole nation behind it and not just the ruling classes.

I have suggested above that the famous "palliative"-quote does not so much illustrate Tirpitz's understanding of the peculiar political situation of the *Kaiserreich* as it does his reading of Mahan and his search for further arguments in favour of building a battlefleet. The fleet's functions as a

"political power factor against England", as a "palliative" against Social Democracy, and an early version of the Risk Theory *all* appear at the same time, late December 1895. They can all be traced back to the ideology of sea power, and they all served Tirpitz's personal and professional interests at a turning-point in his career.

Seen from this perspective, the inconsistency of the Risk Theory was not due to the constraints imposed by *Sammlungspolitik*, but was rather the expression of Tirpitz's claim that sea power could exert a force in peacetime that was somehow independent of its military effectiveness in war. There is a parallel inconsistency in the attitude towards the fleet of Weber himself: at the time he was very much in favour of building the necessary power instrument, the more so as he was sure that the time was approaching when the Great Powers would have to fight for their respective shares of the world market. Yet after the war he was heavily critical of the manner in which Tirpitz had alienated Britain and claimed that he himself had been in favour of pursuing *Weltpolitik* in accordance with Britain.¹³⁸

It would seem most correct to state that a naval programme based on the Risk Theory was an attempt to reconcile the expansionist policy that Weber and his fellow liberal imperialists demanded, with an insoluble strategic problem. With the benefit of hindsight, Weber himself recognized the conundrum in January 1919:¹³⁹

*[Experience has taught us] that for defensive purposes a fleet the size of the French navy would have sufficed for us. When the geographical positions of Liverpool on the one hand, and Hamburg on the other, are taken into account, even a fleet equal to the British would not have been strong enough to carry out a real blockade of England. These were indeed major errors in Tirpitz's attempt to carry out a great power policy [*Gernegroßpolitik*], a policy which we opposed.*

Twenty years earlier Tirpitz's emphasis on the "political importance of sea power" had helped disguise that conundrum. Weber did not accept these

claims, but at the time he wholeheartedly supported the fleet programme, despite its effect on Anglo-German relations. Furthermore, even if, as Weber and Kehr claimed, reform had created the necessary social base for a more assertive world and naval policy, surely the consequences would have been at least as catastrophic?¹⁴⁰

After the Second World War historians gained access to the German naval archives that had been captured by the Allies. The most thorough analysis of the strategic calculations upon which Tirpitz's naval policy was based, was carried out by Paul Kennedy in the late 1960s and early 1970s.¹⁴¹ Better than anyone before or since, he was able to lay bare and document the glaring inconsistencies in Tirpitz's concepts. This is above all true of Kennedy's strategic critique of the role that the "risk fleet" was supposed to play in peacetime. He sees Tirpitz as wanting to alter the power ratio with Britain and states that: "[...] Tirpitz saw his battlefleet in the form of a sharp knife, held gleaming and ready only a few inches away from the jugular vein of Germany's most likely enemy."¹⁴²

Kennedy goes on to ask precisely *how* this "dagger at the throat" strategy was supposed to function in peacetime. How could the political lever function? Was the fleet supposed to cruise closer to Britain in times of tension and thereby exert a form of diplomatic pressure? His conclusion is simple: "[...] the lever principle could not work in peacetime, either as a way to protect German interests in a colonial quarrel, or to pressure Britain, or to affect rapidly-changing developments on the other side of the globe."¹⁴³

Kennedy exposes the astounding "logic gaps" that culminate in the «basic paradox» of the Risk Theory, and concludes that "The basic error was to believe that the British could be forced into concessions by the creation of this lever[...]"¹⁴⁴ His exposure of Tirpitz's "silly" concepts is compounded by the fact, which Kennedy does not mention, that the Risk Theory was also incompatible with Tirpitz's own operational doctrines in Service Memorandum IX.

All of this begs the question *why* Tirpitz pursued such a hollow policy, and how he got away with it. Kennedy proposes two motives, one being

the domestic political calculation propelling him forward, the second being that Tirpitz's final objective was probably to build a fleet larger than Britain's. This was, as has been mentioned earlier, the only means by which the fleet programme could be given a sense of strategic rationality.

But it is precisely because the inconsistencies that Kennedy exposed are so glaring and incredible that it seems necessary to add a further explanation. Since a strategic critique of the navy's alleged role in peacetime highlights its pitiful inadequacy, does it not seem more likely that its leaders actually believed their own claims about the "political importance of sea power"? We have seen that from Service Memorandum IX onwards Tirpitz advanced two alternative interpretations of sea power and that there is no logical connection between them. The difference between them can be illustrated thus:

In a strategic analysis of the role of navies in war, sea power is a *relative* force, its strength depending on the ratio between the opposed fleets. Within the ideology of sea power the force exerted by navies in peacetime is understood in an *absolute* sense. The concept of the "political importance of sea power" implies that the mere possession of a navy represents a measure of sea power; it exerts a force in peacetime which seems to be more or less independent of the relative military strength of the same fleet in a war. Doubling your fleet doubles the "political importance" of your sea power in peacetime, *whoever* you may consider your most likely enemy in war.

Kennedy's *strategic* critique of the role the "risk fleet" was supposed to play in peacetime exposes the futility of Tirpitz's claim that an altered power ratio with Britain could act as some kind of political lever. But if Tirpitz also did believe that each new battleship increased the fleet's "political importance" in peacetime, then he was acting somewhat more rationally (within the limits of the ideology of sea power). This would make it less likely that Tirpitz actually saw the fleet as a "dagger at the throat" of Britain. It would be more correct to say that he saw the "political importance" of a powerful fleet as a kind of reverse magnetic force that could prevent the iron gates from clanging shut in the tariff fortresses of Germa-

ny's economic rivals. Or, to use a simile which would probably have been familiar to Tirpitz and which he might have heard from Bülow or the kaiser:

Our situation is like that of the Athenians during the period when they had to build the long walls to Piraeus without being prevented from finishing by the more powerful Spartans.¹⁴⁵

As I have stated above, it is impossible to determine the extent to which Tirpitz actually believed in this interpretation of sea power, but he certainly had every incentive to do so. An ideology does not have to be logically consistent; and the ideology of sea power could serve the useful purpose of filling the logical gaps exposed in Kennedy's strategic analysis. This does not mean that the Tirpitz Plan was less offensive or more defensive than historians claim; it simply means that it is impossible to determine the exact mix of the various elements.

It could well be that Tirpitz eventually aimed at building a larger fleet than Britain's. But making him a rational actor from the mathematical point of view, by squaring the projected fleet with Service Memorandum IX, only solves half the problem. One is still left with the fact that he ignored his own insight into Germany's abysmal geographical position in relation to the British Isles and into the likelihood of a wide blockade. Once again it would seem that the best way to compensate for the strategic diminution of relative sea power in war was to emphasize the enhancing «political importance» of sea power as an absolute factor in peacetime.

Wegener's Strategic Alternative and the Continuity of the German School

Hitherto, I have interpreted the inconsistencies of the "risk fleet" against Britain as a result of the Mahanian ideology of sea power supplanting the operational doctrines within the German school. But a very different

explanation has been advanced. Since it is connected with a strategic alternative to the risk theory, it should also be considered in detail.

Wolfgang Wegener's explanation was that pre-war German naval thought had been dominated by continental military thought ("landmilitärisches Denken"), which had led it to develop a doctrine of the "battle in itself", a battle devoid of strategic necessity or meaning. The Risk Theory, which Wegener rightly dismissed as "cant", was predicated on the notion that the British would seek out the German fleet to do battle in the Helgoland Bight. In fact, Wegener stated, such a battle would only occur when Germany threatened Britain's command of the sea; where there was no need to fight, it would not occur. Wegener quoted with approval the *Schadenfreude* of a British officer writing in 1923:¹⁴⁶

The British fleet did not exist for the purpose of fighting the German Fleet on a battleground and at a time of the latter's choosing and purely for the sake of fighting. It existed for the purpose of obtaining and maintaining command of the seas. And in so doing it fulfilled its rôle.

During the war, this concept of battle, as embodied in the Risk Theory, condemned the fleet to a strategically defensive, tactically offensive stance, the purely passive role of a "fleet in being".

In the light of the influence that Clausewitz had on German naval thought, especially through the medium of Stenzel, it is highly tempting to accept Wegener's explanation of the contradictions in Tirpitz's policy. But a closer examination of the solution he provided to Germany's strategic dilemma shows that we must search elsewhere for a more convincing explanation. Wegener defined command of the sea as "control of sea communications"; sea power he defined as the sum of fleet strength and geographical position relative to the great trade routes - if one of these two factors is zero, it considerably reduces the effectiveness of the other.

The vital trade routes upon which both Britain and Germany depended, all ran across the *Atlantic* and not through the North Sea. Wegener there-

fore concluded that the decisive battle for command of the sea could only be forced on the British by breaking their wide blockade and threatening their control of communications in the Atlantic. A true strategic offensive should therefore have sought first to improve Germany's geographical position relative to the Atlantic by gaining bases on the French and Norwegian coasts.

Wegener recognized the fundamental geographical problem that Tirpitz had chosen to ignore after 1897. His definition of sea power as the sum of "fleet" and "position" led to the correct conclusion that the German navy could only carry out a true strategic offensive against Britain by first improving its position with regard to the great sea lanes. But his definition of command as the control of sea communications ignored the fact that in the final analysis, as Rosinski pointed out, command could only be exercised by *controlling the enemy*.

Tirpitz had recognized this fact in 1894, and from it he had drawn the conclusion that the strategic offensive must possess a numerical superiority of one third to succeed. Wegener ignored the problem. He sought to find a solution to Germany's geographical weakness but overlooked the pressing matter of *how* the weaker fleet was supposed to gain a victory after it had challenged the Royal Navy to battle.¹⁴⁷ In its own way, Wegener's solution to Germany's strategic problems in a war with Britain was just as incomplete as Tirpitz's. In addition, his strategic irrationality was compounded by an astonishing political blindness. How was it possible, after the experiences of 1917, to propose a method of defeating Britain which ignored the likelihood that the United States would intervene to save it?¹⁴⁸

The insufficiency of Wegener's solution to Germany's strategic conundrum suggests that his diagnosis of what caused Tirpitz's blindness - continental military thought - might also be off the mark. Indeed, we have seen that between 1891 and 1894 Tirpitz himself had honed the Clausewitzian dogmas of the earlier Prussian school on the realities of modern naval warfare to produce sharply defined operational doctrines. And we have subsequently seen that it was the new ideology of sea power

that lay behind the "cant" of the Risk Theory. Could it be that in this respect Wegener himself belonged to the German school he criticized so severely?

A cursory reading of *The Naval Strategy of the World War* shows this to be the case. None of the post-war partisans of Wegener's critique of Tirpitz have mentioned that he himself shares the latter's ideology of sea power. He frankly advocates a brutal policy of overseas expansion and extols the value of the struggle for life.¹⁴⁹ Wegener's theories in fact represent one of the most important bridges within the ideology of sea power between the imperialism of the Tirpitz generation of naval officers and the fascism of the one that followed.¹⁵⁰

There is evidence to suggest that Wegener was more influenced by geopolitics than he was by strategic thought. He was a better Mahanian than Tirpitz in his understanding of the importance of the Atlantic for Germany's sea power, but his expansionism has more of a fascist ring to it than that of the previous generation.¹⁵¹

It is probably correct to see Stenzel as the originator of the Prussian school of naval thought. His abstract, Clausewitzian approach to the study of naval warfare was adapted by Tirpitz to meet the needs of the real navy in the early 1890s; this systematic work resulted in precise operational doctrines and a construction programme that was to provide Germany with the modern battlefleet it needed to defend itself in a war against France and Russia. At the same time Tirpitz introduced into the German school the ideology of sea power. By the end of the decade, his "political" interpretation of sea power had displaced the parallel "military" approach. The Risk Theory's emphasis on the decisive "battle in itself" in the Helgoland Bight was *not* a product of the line of thought that ran back to Stenzel and Clausewitz. It was a product of the ideology of sea power derived from Mahan.

The cant of the Risk Theory was an expression of the belief in sea power as a magical peacetime force. Wegener merely carried this cant to its absurd conclusion. He discarded the navalist notion that sea power could underpin Germany's rise to world power *without* war, in favour of

the fascist notion that world power would have to be wrested from the "Anglo-Saxons" by force. Seizing control of bases on the Atlantic coastline would certainly level out the disparity between the geographical positions of Germany and Britain - and perhaps force the latter to fight for command. But levelling-out is not enhancement; improving the "sea-strategic" position of the German fleet could not also compensate for its numerical inferiority. In the final analysis, Wegener was saying that his strategic offensive would somehow make the weaker fleet stronger than the stronger fleet - a proposition that owes more to metaphysics than it does to mathematics.

Tirpitz, Maltzahn, Wegener and Assmann were leading influences on the development of the German school of naval thought for over a half a century. They all firmly believed in the ideology of sea power that first took shape in the Tirpitz Plan. Whether or not the Risk Theory really represented the strategic calculations on which the military foundations of Germany's political offensive rested, is less important than the fact that the alternatives proposed by Wegener and Assmann¹⁵³ were equally ineffective. They all founder on the rock of the doctrines of Service Memorandum IX.

National Defence, Expansionism and Militarism

The difference between the approach that culminated in those doctrines, on the one hand, and the ideology of sea power, on the other, is a perfect illustration of the distinction Alfred Vagts drew between the "military way" and the "militaristic way".¹⁵³ The first seeks to serve specific political objectives efficiently. "It is limited in scope, confined to one function, and scientific in its essential qualities." Militarism is unlimited in its objectives and may even "hamper and defeat the purposes of the military way." With imperialism, "it shares the tendency to extend dominion." The former generally seeks size in the form of more territory, the latter strength in the form of control over ever more men and more money.

The operational doctrines of Service Memorandum IX precisely defined

the conditions under which the strategic offensive should be undertaken if it was to serve a meaningful military purpose. The objectives of the ideology of sea power, on the other hand, were *unlimited* and *undefinable*. It provided a rationale for an imperialist foreign policy of expansion without object,¹⁵⁴ and in domestic politics it served the militarism of a naval establishment that sought continuously to extend its control over men and resources. There are therefore strong grounds for suspecting that an institutional motive lay behind the enthusiastic adoption of the ideology of sea power

If we give up the search for the ultimate rationality behind the Tirpitz Plan, it becomes easier to place German navalism within the context of High Imperialism. Irrational, pseudo-scientific theories were the hallmark of the age. As Hannah Arendt has pointed out, the nineteenth century was full of absurd philosophies which are completely forgotten today; if it had not been for the scramble for Africa, the racial theories developed in France and Britain by Gobineau, Galton and others would have followed their authors onto the rubbish dump of history. Since imperialism could not be justified by - indeed completely contradicted and undermined - the theory of the nation state developed in Europe since the French Revolution, racialist theories came into their own to legitimize expansion and the subjugation of non-European peoples.¹⁵⁵

Claude Raffestin has recently pointed out that the pseudo-science of geopolitics, as inspired by Mahan and developed by Ratzel, served the same purpose of legitimizing expansion in the eras of imperialism and fascism. Maltzahn's admiration for Ratzel has already been referred to. An interesting file among Tirpitz's papers contains his correspondence with Houston Stewart Chamberlain and his widow during the 1920s. There can be little doubt that his fervent admiration for the author of the racist and antisemitic *Foundations of the Nineteenth Century* (1899) dates back to before the war. If Tirpitz could find anything at all to admire in Chamberlain's ravings,¹⁵⁶ it makes his adherence to the ideology of sea power and his belief in the magical properties of navies seem the very height of lucidity. When that ideology took concrete form in the Tirpitz Plan, it provided the most

important stepping-stone on Germany's road from Bismarck's saturated continental policy of balance and moderation to Nazism's unlimited "expansion without object".

One final word must be said on the narrower subject of the history of naval thought. Mahan, Tirpitz, Maltzahn, Castex, Wegener and Assmann were intelligent thinkers who made important contributions to the study of naval history and theory. At the same time, they all subscribed to expansionist political ideologies which ranged from the pre-fascist to the lunatic.¹⁵⁷ It is impossible to study the one and ignore the other because they continuously interacted. At this distance in time, historians should attempt, not to extract the "lasting insights" of such thinkers, but to study the interaction between the development of modern naval thought and the *Zeitgeist*.

In the case of the German school, the ideology of sea power gave birth to the Risk Theory, the supposedly solid strategic underpinning for a more assertive German world policy. When its contradictions were laid bare after the outbreak of the First World War, other thinkers within the same school sought to cleanse their theories of the wishful thinking that had prevailed earlier. But since they, in turn, sought to pursue even more radical world political objectives, they were equally blind to the contradictions in their own solutions to the same strategic problem. That blindness cannot be adequately explained without reference to the political ideology that drove them.

Notes

¹For a survey of these developments see William H. McNeil: *The Pursuit of Power. Technology, Armed Force, and Society since A.D. 1000* (Chicago, 1982), pp.223-55. The classic, and unsurpassed, study of technological change is James P. Baxter III: *The Introduction of the Ironclad Warship* (Cambridge, Mass., 1933). See also Michel Mollat (ed.): *Les origines de la navigation à vapeur* (Paris, 1970). For the adaptation of tactics and strategy to technological change, see Bernard Brodie: *Sea Power in the Machine Age* (Princeton, N.J., 1940); and C.I. Hamilton: *Anglo-French Naval Rivalry 1840-1870* (Oxford, 1993).

²This discussion can be said to have begun with the publication of J.C.R. Colomb's *The Protection of Our Commerce and Distribution of our Naval Forces Considered* (London, 1867) and can best be followed in the pages of the *Journal of the Royal United Services Institute*. The standard works on this subject, Arthur Marder: *The Anatomy of British Sea Power* (New York, 1940) and Donald Schurman: *The Education of a Navy. The Development of British Naval Strategic Thought* (London, 1965) are now somewhat dated.

³Baron Jean-Baptiste Grivel: *De la guerre maritime avant et depuis les nouvelles inventions* (Paris, 1869).

⁴Theodore Ropp: *The Development of a Modern Navy. French Naval Policy 1871-1904* (Annapolis, Md., 1987), p.334.

⁵*Ibid*, pp.155-80; Volkmar Bueb: *Die «Junge Schule» der französischen Marine. Strategie und Politik 1875-1900* (Boppard am Rhein, 1971).

⁶See below for references.

⁷I hope to integrate the naval with the political story in a more extensive study currently in preparation.

⁸Ivo Nikolai Lambi: *The Navy and German Power Politics 1862-1914* (Boston, 1984), p.1.

⁹Moltke to Stosch 22 Feb.1873, in Moltke: *Die deutschen Aufmarschpläne 1871-1890*, ed. Schmerfeld (Berlin, 1929), pp.31-4.

¹⁰Stosch to Gustav Freytag 3 Dec.1871, in U. von Stosch (ed.): *Denkwürdigkeiten des Generals und Admirals Albrecht von Stosch* (Berlin, 1904), p.272. *Flottengründungsplan* (Naval Construction Plan) of 1873, quoted in Ekkhard Verchau: "Von Jachmann über Stosch und Caprivi zu den Anfängen der Ära Tirpitz", in Schottelius & Deist (eds.): *Marine und Marinepolitik 1871-1914* (Düsseldorf, 1972), p.59.

¹¹Caprivi's Reichstag speech of 8 March 1893, *Schultheß' europäischer Geschichtskalender*, pp.20f. Tirpitz: *Erinnerungen* (Leipzig, 1919), pp.23ff.

¹²Lothar Burchardt: *Friedenswirtschaft und Kriegsvorsorge. Deutschlands wirtschaftliche Rüstungsbestrebungen vor 1914* (Boppard, 1968), pp.52, 162, 179f., 183f..

¹³Reichstag speech of 8 March 1893; letter to Max Schneidwin 22 Feb.1896, in Max Schneidwin: "Briefe des verstorbenen Reichskanzlers Caprivi" in *Deutsche Revue* 47 (1922), p.251.

¹⁴Ropp: *The Development of a Modern Navy*, p.28, 30.

¹⁵C.I. Hamilton: *Anglo-French Naval Rivalry*, pp.106-43.

¹⁶The only study of the development of German tactics is Curt Freiherr von Maltzahn's *Geschichte unserer taktischen Entwicklung* (Berlin, 1910-11), two volumes printed for internal use. There is an earlier, more detailed survey prepared by an officer attending the *Marine-Akademie* course of 1907-8 in *Bundesarchiv-Militärarchiv* (BA-MA), Freiburg, RM 8/80; but Maltzahn's is by far the most comprehensive.

¹⁷Maltzahn: *Geschichte*, I, pp.142-55.

¹⁸Applied tactics, according to Maltzahn, should connect formal rules and theory with practice; manoeuvres should place tactical actions within a strategic framework. *Ibid*, I, pp.166, 185.

¹⁹*Ibid*, I, pp.155-66, 206-28.

²⁰See Patrick J. Kelly: "Tirpitz and the Development of the German Torpedo Arm", in *Naval History, the proceedings of the Eleventh Naval History Symposium* (USNA Annapolis, 1993), forthcoming. Maltzahn: *Geschichte*, I, pp.166, 192-99.

²¹*Ibid*, I, p.3f. (My emphasis).

²²Rosinski: "Strategy and Propaganda in German Naval Thought" (1945), reprinted in B. Mitchell Simpson III (ed.): *The Development of Naval Thought. Essays by Herbert Rosinski* (Newport, R.I., 1977), p.70. Rosinski is the only person to have identified a specifically German school of naval thought. This essay owes a lot to his brilliant insights. He taught at the *Marine-Akademie* during the late 1920s and translated Castex into German. After Hitler came to power, he emigrated to Britain and then to the US, where he lectured and wrote on strategic topics. His article on Clausewitz's late thought served as the point of departure for the post-war reinterpretation of the latter's theories: "Die Entwicklung von Clausewitz' Werk Vom Kriege im Lichte seiner Vorreden und Nachrichten", in *Historische Zeitschrift*, 151 (1935), pp.278-93. He also wrote a comparative study on Mahan and Clausewitz which was lost during the war; parts of it can be reconstructed from his papers at the USNWC. Unfortunately, Rosinski rarely completed his studies, which in addition are often written in impenetrable English. See Richard P. Stebbins: *The Career of Herbert Rosinski. An Intellectual Pilgrimage* (New York, 1989).

²³An interesting contemporary description can be found in the investigation carried out on behalf of Congress by Professor James R. Soley, who was later actively involved with the USNWC: *Report on Foreign Systems of Naval Education* (Washington, 1880), pp.190-93.

²⁴Samuel P. Huntington: *The Soldier and the State. The Theory and Politics of Civil-Military Relations* (Cambridge, Mass., 1957), p.241; Russell F. Weigley: *The American Way of War. A History of United States Military Strategy and Policy* (Bloomington, Id, 1973), p.172; Philip Crowl: "Alfred Thayer Mahan: The Naval Historian", in Peter Paret (ed.): *Makers of Modern Strategy from Machiavelli to the Nuclear Age* (Princeton, N.J., 1986), p.446. Etienne Colson: *La culture stratégique américaine. L'influence de Jomini* (Paris, 1995), p.190.

²⁵There is, for example, no German equivalent of Ronald Spector's *Professors of War. The Naval War College and the Development of the Naval Profession* (Newport, R.I., 1977). There are some marginal references to the MA in Herbert Graubohm: *Die Ausbildung in der deutschen Marine von ihrer Gründung bis zum Jahre 1914* (Düsseldorf, 1977) and Friedrich Forstmeier: "Probleme der Erziehung und Ausbildung in der Kaiserlichen Marine in Abhängigkeit von geistiger Situation und sozialer Struktur", in *Marine Rundschau* 1966, pp.189-98.

²⁶Spector: *Professors of War*, p.15.

²⁷A letter of Caprivi to Bismarck in August 1884 shows that there was a strong

institutional motive impelling the navy towards taking the offensive in the next war - *regardless* of whether such action would serve any rational military purpose: "In the next war, the navy must under all circumstances buy itself into the history of Germany, either through a victory or through a number of smaller successes." (Maltzahn: *Geschichte*, I, pp.124f.) Mahan was certainly also motivated by the wish to do something for his service (Robert Seager: *Alfred Thayer Mahan. The Man and His Letters* (Annapolis, Md., 1977), p.173; Colson: *La culture stratégique américaine*, p.207).

²⁸Spector: *Professors of War*, p.38.

²⁹Wilhelm Deist: *Flottenpolitik und Flottenpropaganda. Das Nachrichtenbüro des Reichsmarineamts* (Stuttgart, 1976), p.37f.

³⁰Spector: *Professors of War*, p.15.

³¹Stenzel: *Kriegführung zur See. Lehre vom Seekriege* (Hannover & Leipzig, 1913), pp.IV, 3. There is no surviving manuscript with which to compare the final version, so it is difficult to know how many alterations Kirchhoff made to the original text. Stenzel suffered from chronic ill-health; in a letter (to Batsch) of 8 Jan. 1893, he complains that it has prevented him from revising his lectures (BA-MA N226/7). It is unlikely that he did so during the last years of his life, when his health further declined. Almost every single historical illustration in the text is drawn from wars before 1871 (i.e. there are no references to the battles of Yalu or Tsushima etc.). Even more significant is the absence of a Mahanian terminology of "sea power" and "command of the sea" In a letter to Batsch of 29 Nov. 1891 (BA-MA N226/7), Stenzel comments favourably on Mahan and states that the influence of "sea-might" is an old theme of his, for which he has collected all kinds of material. Then he complains that nobody cares about the subject and that he has been very unlucky in his search for publishers. In the light of the available evidence it therefore seems probable that the structure and contents of the book provide a reliable picture of his teaching at the MA.

³²He then published a diatribe against what he believed the MA had become ("Bedarf unsere Marine einer militärischen Hochschule?", Beiheft zum *Militär Wochenblatt* 6 (1896), pp.265-94), which is interesting for the insights it provides into his theoretical and institutional models.

³³Maltzahn, Holtendorff and Galster attended the same course in 1880, Carl-Axel Gemzell: *Organization, Conflict and Innovation: A Study in German Naval Strategic Planning, 1888-1940* (Lund, 1973), p.114.

³⁴*Kriegführung zur See*, p.XXX; Borckenhagen: "Zum Studium der Seekriegsgeschichte, I, Aeltere und neuere Literatur", in *Marine Rundschau*

(1896), pp.50, 57; Groos: *Seekriegslehren im Lichte des Weltkrieges* (Berlin, 1929), p.XI. Tirpitz: *Erinnerungen*, pp.18ff. Tirpitz was one of only three young officers who applied to the Academy in the autumn of 1874. He attended it from October 1874 to May 1876, Hans Hallmann: *Der Weg zum deutschen Schlachtfloottenbau* (Stuttgart, 1933), p.103.

³⁵Rosinski: *Die Entwicklung von Clausewitz' Werk*; Wallach: *The Dogma of the Battle of Annihilation. The Theories of Clausewitz and Schlieffen and their Impact on the German Conduct of Two World Wars* (Westport, Ct., 1986); Peter Paret: *Clausewitz and the State* (Princeton, N.J., 1976); Aron: *Penser la guerre. Clausewitz*, 2 vols. (Paris, 1976-77). Arden Bucholz: *Hans Delbrück and the German Military Establishment. War Images in Conflict* (Iowa City, 1985).

³⁶Gat. *The Origins of Military Thought. From the Enlightenment to Clausewitz* (Oxford, 1989). For a survey of the debate see Rolf Hobson: *Fra kabinettskrigen til den totale krigen. Clausewitz-tolkninger fra Moltke til Aron* (Oslo, *Forsvarsstudier* 6/1994).

³⁷*On War* ed. and trans by Peter Paret & Michael Howard (Princeton, N.J., 1976), pp.95, 97. (Clausewitz's emphasis).

³⁸*Kriegführung zur See*, p.18. (Stenzel's emphasis). Identical quotes on pp.20f., 29, 37.

³⁹*Ibid.* pp.31-33.

⁴⁰In Tirpitz's work, for example, the term "command" only gets an inauspicious first mention in some rough notes, probably written towards the end of 1891, BA-MA N 253/31, pp.116f. He did not use it in any of the memoranda he wrote during the the first half of that year (see below for details). Indeed, there is an interesting marginal comment on the April memorandum (cf. V.R. Berghahn & W. Deist: *Rüstung im Zeichen der wilhelminischen Weltpolitik. Grundlegende Dokumente* (Düsseldorf, 1988), pp.82-7; on the original document (BA-MA RM 3/32), a commentator (probably Büchsel) crossed out Tirpitz's use of the phrase *Heerschlacht* (Berghahn/Deist, p.84), literally "army battle", and replaced it with *Herrschaft!* ("command!").

⁴¹Cf. Stenzel: *Die deutsche Flotte und der Reichstag. Ein Wort zu Gunsten der Deutschen Wehrkraft zur See* (Berlin, 1892), p.21f. This point is made by Eckart Kehr: *Schlachtfloottenbau und Parteipolitik 1894-1901. Versuch eines Querschnitts durch die innenpolitischen, sozialen und ideologischen Voraussetzungen der deutschen Imperialismus* (Berlin, 1930), p.37f., note 15.

⁴²Tirpitz was very eager to demonstrate that his naval policy was merely a continuation of Stosch's systematic promotion of Germany's "sea interests", cf.

Erinnerungen, p.12ff.. In fact, he was constructing a false continuity in the light of his own Mahanian ideology.

⁴³Kehr: *Schlachtflottenbau*, pp.247-59.

⁴⁴Robert Seager II & Doris D. Maguire (eds.): *Letters and Papers of Alfred Thayer Mahan*, vol.I (Annapolis, Md., 1975), pp.617, 622-4; Mahan: *From Sail to Steam. Recollections of Naval Life* (New York, 1907), pp.282f..

⁴⁵Crowl: *Alfred Thayer Mahan*, pp.455ff.; Colson: *La culture stratégique américaine*, pp.196-99.

⁴⁶John B. Hattendorf's introduction to *Mahan on Naval Strategy. Selections from the Writings of Rear Admiral Alfred Thayer Mahan* (Annapolis, Md., 1991), pp.IXf..

⁴⁷Seager: *Mahan*, p.202.

⁴⁸Mahan: *From Sail to Steam*, p.283.

⁴⁹Azar Gat: *The Development of Military Thought. The Nineteenth Century* (Oxford, 1992), pp.190-99.

⁵⁰He compares the "idealistic" approach to be found in the theories of both Clausewitz and Mahan - the advantage of which is the clarity of the lessons it provides - with a "realistic" description of historical events - which attempts to describe "war as it is", but may be more easily misunderstood. USNWC, Rosinski Papers, *Mahan's Theory*, p.11.

⁵¹Mahan: "Considerations Governing the Disposition of Navies" (1902), in *Mahan on Naval Strategy*, pp.297f..

⁵²Corbett: *Some Principles of Maritime Strategy* (1911 - Annapolis, Md., 1988), p.158. This aspect was also emphasized by Assmann: "Gedanken über die Probleme der deutschen Seekriegführung im Weltkriege", II, in *Militärwissenschaftliche Rundschau*, no.3 1939, p.316.

⁵³Rosinski: *Mahan's Theory*, p.6 (my emphasis); *idem*: "Command of the Sea", in *The Development of Naval Thought*, pp.4f.. Such a definition of command as control of the enemy rather than "of the sea" (Mahan) or "of communications" (Corbett, Wegener) is also in accordance with a doctrine of "sea denial" by submarines. It has interesting consequences for Wegener's critique of Tirpitz (see below).

⁵⁴G.J. Marcus: *A Naval History of England*, vol.2, *The Age of Nelson* (London, 1971).

⁵⁵Bernard Brodie: *Sea Power in the Machine Age*, p.83.

⁵⁶Aube: "La guerre maritime et les ports militaires de la France", in *Revue des deux Mondes*, 1882, p.323.

⁵⁷Ropp: *French Naval Policy*, pp.166f; Coutau-Bégarie: *La puissance maritime. Castex et la stratégie navale* (Paris, 1985), p.66.

⁵⁸*Gründe, welche für Beibehaltung eines Oberkommandos mit kräftigen Befugnissen sprechen*, 1 Feb.1891, BA-MA N 253/42 (& N 253/39 for additional marginalia); *Über unsere maritim-militärische Fortentwicklung*, 1 April 1891, BA-MA RM 3/32 (partially published in Berghahn/Deist: *Rüstung*, pp.82-7); *Denkschrift über die Neuorganisation unserer Panzerflotte* (autumn 1891) summarized in Maltzahn: *Geschichte*, II, pp.9-14.

⁵⁹The earliest example is a letter that the 22-year old *Unterleutnant zur See* wrote to his father in September 1871, Ulrich von Hassell: *Tirpitz. Sein Leben und Wirken mit Berücksichtigung seiner Beziehungen zu Albrecht von Stosch* (Stuttgart, 1920), pp.88-91.

⁶⁰Kelly's translation, from *Tirpitz and the Origins of the German Torpedo Arm.*

⁶¹Especially Book I, Chapter 2.

⁶²Although an interesting biographical sketch that his son wrote in 1918 shows that the Tirpitz family was exceptionally fascinated by Prussia's glorious past and the war of liberation against Napoleon, and that *On War* was held in great reverence by Tirpitz. BA-MA N 253/114. He himself testifies to the atmosphere in which he was raised, *Erinnerungen*, p.8.

⁶³The will to sacrifice the fleet for the glory of the navy lived on in the officer corps and surfaced again during the war. On 30 Aug. and 11 Sept. 1914 Tirpitz justified his demands for a naval offensive by pointing out that if the High Seas Fleet did not fight, it would lose respect, the Navy Law would have been in vain, and the navy would get nothing after the war had been won. (*Erinnerungen*, p.311ff.; Gemzell: *Organization*, p.178ff.) On 31 Aug. he wrote of the danger that the army would reap all the postwar financial benefits if the navy were to remain inactive: "There was no need to be victorious; it would be sufficient to be "ruhmreich" (glorious), because ... then the opinion will break through that we must have a fleet as strong as England's." (Quoted from *ibid*, p.193). Whereas at the beginning of the war the spur that gave the institutional motive its urgency was the prospect of the army's imminent victory, towards the end it was its imminent defeat. (See the similar statements by Trotha and Scheer in *ibid*, p.212). In October 1918, the orders for a final suicide offensive provoked the mutiny that sparked off revolution and brought down the monarchy.

⁶⁴Berghahn/Deist: *Rüstung*, pp.92f.

⁶⁵Tirpitz was not the first person to recognize this within the German navy, but he did draw the theoretical consequences more clearly than anyone had done previously. For what it is worth, a short review of Aube's book in the *Beiheft zum Marine-Verordnungsblatt* did underline this insight. More importantly, it was recognized as a fact to be reckoned with in the navy's operational planning, both in the first plan against Russia of 1882 and in the 1889 plan for a war against both France and Russia (cf. Lambi: *Navy*, pp.16, 42). The latter stated especially clearly that the strategic offensive, culminating in a battle for control of the sea, is the preferred procedure, but that a significant disparity in strength will lead the weaker side to avoid battle.

⁶⁶Although Tirpitz does not mention Mahan in the memorandum, it is necessary here to discuss his influence on its operational doctrines. Hervig calls the memorandum "purely Mahanian" ("The Influence of A.T. Mahan Upon German Sea Power", in John B. Hattendorf (ed.): *The Influence of History on Mahan* (Newport, R.I., 1991). At the other extreme Azar Gat says (in *The Development of Military Thought*, p.187) that Tirpitz "[...] apparently needed no Mahan to crystallize his ideas regarding German naval policy." Both, however, agree with most other historians that Mahan was above all used by German naval propaganda to further the fleet programme. I think it most likely that Mahan did not much influence the operational doctrines of the memorandum. His concept of the indivisibility of command was most clearly spelled out in the article "Blockade in Relation to Naval Strategy", published in *JRUSI* 39 (1895) and therefore unknown to Tirpitz at the time he was composing the memorandum. The doctrine of the strategic offensive was Tirpitz's adaptation of the Prussian school's axioms to the peculiarities of naval warfare as he understood them and to Germany's new international situation after the conclusion of the Franco-Russian alliance. On the other hand, it will be shown in the next section that the ideology of sea power that first appears in Service Memorandum IX was "purely Mahanian". The rest of this article will attempt to show that this "political importance of sea power" was not just used for propaganda purposes, but that it warped the operational doctrines - and eventually supplanted them.

⁶⁷A particularly strong testimony to its influence can be found in the letter by Mantey, head of the naval archives, to Hollweg, the head of the information bureau of the *Reichsmarineamt*, in April 1929, BA-MA RM 3/11675.

⁶⁸As early as 1886, Caprivi pointed out to Bismarck that the decline in the strength of the German, relative to that of the Russian, Baltic fleet would weaken its ability to carry out its tasks. (Lambi: *Navy*, p.18). See also Hallmann: *Der Weg*, p.129. Tirpitz put this argument especially clearly in the draft he wrote in

March 1896 for a Reichstag speech he never held, Hallmann: *Krügerdepesche und Flottenfrage* (Stuttgart, 1927), Appendix, p.79ff.

⁶⁹Berghahn/Deist: *Rüstung*, pp.99-103; Lambi: *Navy*, pp.81-4.

⁷⁰Memorandum by Knorr (Head of the High Command) to Wilhelm, 28 Nov. 1895, BA-MA N 253/3.

⁷¹Berghahn/Deist: *Rüstung*, pp.105-8.

⁷²The proposals of the November memorandum were repeated with few modifications in the construction programme presented at Wilhelm's behest in May 1897, but were immediately superseded by Tirpitz's plan for a navy against England. It is important to note that there is not a word of the ideology of sea power in the 1895 document, which is exclusively concerned with national defence.

⁷³Kenneth J. Hagan emphasizes his imperialist propaganda and militarism in "Alfred Thayer Mahan. Turning America Back to the Sea", in F.J. Merli & T.A. Wilson: *Makers of American Diplomacy*, vol.I (1974), pp.279-304. Claude Raffestin has recently placed Mahan where he belongs: together with Ratzel as one of the originators of the expansionist ideology of geopolitics, cf. Cl. Raffestin, D. Lopreno & Y. Pasteur: *Géopolitique et histoire* (Lausanne, 1995), pp.103-8.

⁷⁴Quoted by Thomas Baecker: "Mahan über Deutschland", in *Marine Rundschau* 73 (1976), pp.10-19. 86-102, who also emphasizes that Mahan was a propagandist for the expansion of the US Navy, p.11f.

⁷⁵I am using the term in the following sense: Navalism is the advocacy, or carrying out, of a policy of naval expansion that goes beyond the demonstrable requirements of national defence and is designed to serve as a means of national aggrandizement. It was closely linked to the High Imperialism of the three decades preceding the First World War. It depended on arguments based on "myths of empire" - claims about the future direction of international affairs drawn from the racist, social darwinist and mercantilist currents of thought prevalent in the era. As in Joseph Schumpeter's interpretation of imperialism and in Alfred Vagts's interpretation of militarism, it is essential to this definition that the objectives of navalism cannot be defined - because the expansion promoted is *limitless*, without object. These three closely related phenomena are therefore irrational and represent the opposite of a scheme of national defence based on a rational evaluation of threats, capabilities and needs. Cf. Ropp: *War in the Modern World* (New York, 1962), p.208.

⁷⁶Harold & Margaret Sprout: *The Rise of American Naval Power, 1776-1918* (Princeton, N.J., 1939), p.203.

⁷⁷Philippe Masson provides a clear critique of Mahan's tendency to see Britain's sea power as the product of economic and colonial, and not of strategic, interests, in *De la Mer et de sa stratégie* (Paris, 1986), pp.24-39.

⁷⁸Rosinski: «Mahan and World War II», in *The Development of Naval Thought*, pp.27f..

⁷⁹As early as March 1894, Tirpitz wrote the following: "Is it really so hard to comprehend that Germany cannot allow its interests to be limited to Europe if Germany wishes to remain viable as the present developments continue. Do people really believe that it is possible to have a world industry without world trade and world trade without world power? But world power is inconceivable without a strong navy." (Quoted in Deist: *Flottenpolitik*, p.35). Cf. Tirpitz: *Erinnerungen*, p.50.

⁸⁰"The due use and control of the sea is but one link in the chain of exchange by which wealth accumulates; but it is the central link, which lays under contribution other nations for the benefit of the one holding it, and which, history seems to assert, most surely of all gathers to itself riches." *The Influence of Sea Power on History* (London, 1965), pp.225f..

⁸¹Historians disagree about how influential Mahan was in Germany, but they do agree that he above all influenced the *political* world view of the navy and the nation. I am following Rosinski in emphasizing Mahan's influence on Tirpitz's *strategic* thought. According to Berghahn (*Der Tirpitz-Plan. Genesis und Verfall einer innenpolitischen Krisenstrategie unter Wilhelm II* (Düsseldorf, 1971), pp.145, 179ff., 421), Mahan's influence on the German navy consisted of 1) a social darwinist interpretation of the struggle for sea power; 2) an understanding of naval strategy similar to Tirpitz's; 3) a "philosophy of naval War", i.e. an interpretation of the influence of sea power on history which emphasized the rise and fall of great powers. Other historians have since written down Mahan's influence in Germany. Baecker (*Mahan über Deutschland*, p.14f.) points out that he was not only misunderstood, but that the kaiser, Tirpitz and others read what they wanted to find in his work and exploited this in their propaganda for the battlefleet. Similarly: Herwig: *The Influence of A.T. Mahan*; and Michael Epkenhans: "Seemacht = Weltmacht. Alfred T. Mahan und sein Einfluß auf die Seestrategie des 19. und 20. Jahrhunderts" in Elvert/Jensen/Salewski (eds.): *Kiel, die Deutschen und die See* (Stuttgart, 1992), pp.35-47. Baecker quotes Rosinski (*Mahan and World War II*, p.29) in support of this interpretation, but com-

pletely misses the point of the argument he truncates. Rosinski did point out that "a wildly exaggerated picture of his [Mahan's] influence on German public opinion" had been created. But in the same paragraph he is at pains to emphasize that "The profound influence of Mahan upon the development of German naval policy [...] is attributable rather to the fact that the peculiarity of Germany's position within the circle of the major sea powers made her, or rather made the leading spirit in German naval policy, Tirpitz, particularly susceptible to the fallacies in Mahan's arguments." It is a great pity that the only German writer to have noticed Rosinski should have misapprehended him to such a degree.

⁸²As in the case of Clausewitz's influence on Tirpitz's thought, the closest one can get to direct evidence of Mahan's importance for his development is the memoir written by his son in 1918 (BA-MA N 253/114): [My father] "was very interested in English history, Mahan's Influence of Seapower upon History left a permanent imprint [*nachhaltigen Einfluss*] on his thought."

⁸³Berghahn/Deist: *Rüstung*, pp.89f..

⁸⁴Cf. the letter to Stosch of 21 Dec. 1895, *Ibid*, pp.103f.. The best illustration of how he juxtaposed these two interpretations is the draft speech of March 1896 (Hallmann: *Krügerdepsche*, pp.79-87) which contains the essence of his military and political thought. Wilhelm, too, was directly influenced by his reading of Mahan when, in a speech given at the *Kriegsakademie* on 8 Feb. 1895, he pointed out "that the extent of a nation's maritime commerce ought to be the measuring-stick for the size of her navy." (Lambi: *Navy*, p.34). Theodore Ropp appositely commented on this notion: "The idea that a navy should be proportionate to the maritime interests of a country was a relic of the days when it was necessary to police the seas against the Barbary pirates or force civilization on the Chinese. As a doctrine for national defense against another first-rate European power, it was as irrational as the notion that an air force should be proportional to the "air interests" created by a Lufthansa or a Pan American." *French Naval Policy*, p.335. But it should be added that it was Mahan who created the conditions for this strange concept to be regarded as the very height of strategic wisdom.

⁸⁵Berghahn/Deist: *Rüstung*, pp.114-17.

⁸⁶That Tirpitz was well aware of this, is testified to by his notes for an interview with Wilhelm on 15 June 1897. Hallmann: *Der Weg*, pp.240f. (See below for further comment).

⁸⁷An interesting illustration of how Tirpitz used both arguments is quoted by Jonathan Steinberg in *Yesterday's Deterrent. Tirpitz and the Birth of the German*

Battle Fleet (London, 1965), p.193f. Replying to liberal criticism, Tirpitz told the Reichstag on 23 March 1898: "If the battle fleet is to prevent an acute illness in case of war, that is death by strangulation for Germany, it must equally prevent a chronic feebleness of our economic life in peacetime."

⁸⁸Eckart Kehr was the first to point out that Tirpitz identified Britain as a new potential enemy before the Transvaal crisis soured relations between the two countries, *Schlachtflottenbau*, p.381, note 5. In Kehr's view, Tirpitz and the officer corps were driven almost exclusively by institutional and professional motives, *ibid.*, pp.6f.note 13, 349f., 380f. He saw them as searching for an enemy to justify a big fleet and believed that Tirpitz also invented the claims of the ideology of sea power for the same reason. Kehr poured scorn on the notion put forward by naval propagandists that fleet construction was a "productive" investment, that naval strength underpinned economic growth in peacetime, and that history demonstrated that powers which lost their naval preeminence also declined economically - in short on the central claims of the ideology of sea power. pp.38, 45f., 102. But he did not recognize the extent to which Tirpitz drew on Mahan for these ideas (he only mentions Mahan in passing, e.g. p.45). In recent historiography, the notion that Tirpitz was above all a bureaucratic empire builder driven by *Ressortgeist*, is to be found in the work of Patrick J Kelly, *The Naval Policy of Imperial Germany, 1900-1914* (Ph.D. dissertation, Georgetown University, 1970), & *Tirpitz as Bureaucrat- Politician* (unpublished paper, 1976); also, drawing on Kelly, Gary Weir: *Building the Kaiser's Navy* (Annapolis, 1992).

⁸⁹Tirpitz's comments of 3 Jan. 1896 on the programme of the High Command, in Berghahn/Deist: *Rüstung*, p.197.

⁹⁰Jonathan Steinberg is right to point out that the Risk Theory did not represent anything new, but it can be followed even further back than to 1897. (*Yesterday's Deterrent*, p.201), cf. Hallmann: *Krügerdepesche*, pp.83ff.

⁹¹Tirpitz was in Kiel, waiting for the order to come through for him to take up the command of the East Asian squadron, when he was drawn to the attention of the kaiser. On 17 December, Wilhelm asked him to comment on the High Command's programme of 28 November. (Hallmann: *Der Weg*, p.169f.) The letter to Stosch was therefore written at the same time as Tirpitz was honing the arguments that were to convince Wilhelm.

⁹²Tirpitz to Stosch, 21 Dec. 1895, in Berghahn/Deist: *Rüstung*, p.103.

⁹³This is not the only source to show that Tirpitz believed that the growth of the socialist movement sapped the strength of the nation, cf. Hallmann: *Der Weg*,

p.134f.; letter to Prince Heinrich of 28 Jan.1907, in Berghahn/Deist: *Rüstung*, p.323. It is at this point that the story of the navy's development touches upon some of the most controversial topics in the historiography of Wilhelmine Germany. It was Eckart Kehr who first linked contemporary developments in domestic politics with the construction of the fleet against Britain. Several leading historians have since followed him in this, whereas Geoff Eley has attempted to untie the knot ("*Sammlungspolitik*, Social Imperialism and the Navy Law of 1898" in Eley: *From Unification to Nazism. Reinterpreting the German Past* (Boston, 1986), pp.110-53). A discussion of these matters lies outside the scope of the present article.

⁹⁴Maltzahn to Tirpitz of 28 Aug. 1895. BA-MA N 253/408.

⁹⁵Wolfgang J. Mommsen: *Max Weber und die deutsche Politik 1890-1920* (2nd ed., Tübingen, 1974), p.82.

⁹⁶It was republished in the collection *The Interest of America in Sea Power, Present and Future* (London, 1898), pp.107-36. The following quote is from p.122. According to Hattendorf (eds.): *A Bibliography of The Works of Alfred Thayer Mahan* (Newport, R.I., 1986), a German translation did not appear until the collection itself was translated as *Die weiße Rasse und die Seeherrschaft* (Leipzig, 1909).

⁹⁷In the memorandum of 3 Jan. 1896 (Berghahn/Deist: *Rüstung*, p.196) the argument is repeated in a slightly different form which mixes a quote from Maltzahn's letter with the same (probable) quote from the Mahan article. Tirpitz now speaks of "the *best means* against educated and uneducated Social Democracy" (although according to Berghahn: *Tirpitz-Plan*, p.146, note 132, the first drafts still speak of a "strong palliative"). He adds that through the promotion of its sea interests Germany will also be able to utilize the surplus wealth of its "human production", which at present "partly threatens to choke us, is partly either lost through emigration or serves to strengthen our competitors."

⁹⁸Lambi: *Navy*, p.165; Herwig: "The Failure of German Sea Power, 1914-1945: Mahan, Tirpitz, and Raeder Reconsidered", in *International History Review*, X (1988), pp.68-105; here p.78.

⁹⁹Conclusive proof of Maltzahn's Mahanian ideology of sea power can be found in his first article on the subject, "Seeherrschaft", in *Neue militärische Blätter*, June 1895. The following is based on his letter to Tirpitz of 28 Aug. 1895, BA-MA N 253/408.

¹⁰⁰Unfortunately, Maltzahn did not describe in detail the workings of this

magical force that would secure access to markets more effectively than the production of quality products at competitive prices would.

¹⁰¹On radical nationalism, see Geoff Eley: *Reshaping the German Right. Radical Nationalism and Political Change after Bismarck* (Ann Arbor, 1991) and Roger Chickering: *We Men Who Feel Most German. A Cultural Study of the Pan-German League, 1886-1914* (Boston, 1984). For the effects of radical nationalism on the army, see Stig Förster: *Der doppelte Militarismus. Die deutsche Heeresrüstungspolitik zwischen status-quo-Sicherung und Aggression 1890-1913* (Stuttgart, 1985).

¹⁰²According to Michaelis, who attended his lectures from the autumn of 1900, BA-MA N 164/4, (p.7 for the following quote). His discussion of the uses to which Clausewitz would be put in naval theory can be found in "Was lehrt das Buch des Generals von Clausewitz 'Vom Kriege' dem Seeoffizier?", in *Marine Rundschau* (1905), pp.683-702. Maltzahn's interpretation fits exactly what has already been said about Stenzel and needs no further comment here.

¹⁰³Cf. *Der Kampf gegen die Seeherrschaft*, a lecture Maltzahn gave in 1898, BA-MA, RM 8/1120.

¹⁰⁴See the next section for the incompatibility of the Risk Theory with Service Memorandum IX.

¹⁰⁵According to Ratzel the state was an organism linked to the soil and bound, like any organism, to grow in a "struggle for space" with its international competitors. He invented the term *Lebensraum* to describe this space. Drawing on Haeckel and Spencer, he sought to show that human societies were subject to the same biological laws as the rest of the natural world. His most important study for navalists was *Das Meer als Quelle der Völkergröße. Eine politisch-geographische Studie* (Munich, 1900). He published two long articles on *Die nordatlantischen Mächte* in the *Marine Rundschau* in 1903. Maltzahn's eulogistic obituary, *Friedrich Ratzel. Ein Gedenkwort*, also appeared there in 1905. On the strong links between Mahan's and Ratzel's imperialism and Kjellén's and Hauhofer's geopolitics, see Raffestin: *Géopolitique et histoire*, pp.29-117, and *passim*.

¹⁰⁶The term derives from Volker Berghahn's fundamental study: *Der Türpitz-Plan*. It describes a peculiar mixture of defensive military and offensive political strategies. Put simply, by constructing a battle fleet in the North Sea at least two-thirds the size of the opposing Royal Navy, Britain was to be deterred from attacking Germany. This so-called "risk fleet" would not itself be strong enough to attack Britain. On the other hand, the Royal Navy would not dare to risk a

battle for fear of losing so many ships that it would lose its command of the sea to other sea powers. On the foundations of this military deterrent, Germany would be able to pursue its world-political ambitions. These included access to overseas markets and supplies of raw materials, more overseas colonies, perhaps even the redistribution of the globe between the three or four world powers of the twentieth century. According to Berghahn, the plan also had a strong domestic element. The feudal political and military elite of Germany used world policy in general and the fleet construction plan in particular to manipulate public opinion. It was to serve as the rallying-point for an alliance between the bourgeois, conservative and Catholic parties to prevent the labour movement from democratizing German society. Tirpitz aimed through the Navy Law to establish an "iron budget" which would shield the navy from the interference of the Reichstag and effectively prevent the parliamentarization of the *Kaiserreich*. In Berghahn's interpretation, the fleet was therefore built against both parliament and England and would above all serve to preserve the anachronistic political and social structures of the Bismarckian Reich well into the twentieth century.

¹⁰⁷See Lambi: *Navy*, pp.33f., 155, 159 and Kehr: *Schlachtflottenbau*, pp.177f., 310, 315f., for a collection of Wilhelm's characteristically contradictory wishes.

¹⁰⁸If only Friedrich Hollmann, the State Secretary of the newly constituted *Reichsmarineamt* (the Imperial Navy Office) from 1888 to 1897, had been able to deliver his mixed bag of overseas cruisers and a motley collection of battle-ships, Wilhelm would not have replaced him with Tirpitz and his far more ambitious plan for a navy against England. Hans Hallmann: *Der Weg*, pp.XI, 56, 96, 188f., 210, 238, 339. The differences between Hollmann's last construction proposals and Tirpitz's first Navy Law six months later were not very significant; it was the systematic form of Tirpitz's proposals that so impressed the Reichstag, cf. Kehr: *Schlachtflottenbau*, pp.121, 125f. John C.G. Röhl ("Der Königsmechanismus im Kaiserreich", in idem: *Kaiser, Hof und Staat. Wilhelm II und die deutsche Politik*, (Munich 1987), p.129) gives Wilhelm too active a role in the *formulation* of naval policy. Wolfgang Mommsen ("Kaiser Wilhelm II and German Politics", in *Journal of Contemporary History*, 25 (1990), pp.289-316; here p.296f.) points out that "perhaps the most important source of Wilhelm's imperial power [...] was the area of personal appointment to high office." His personal choices could have enormous political consequences. In his appointment of Tirpitz, at least, he does not seem to have realized what they would be.

¹⁰⁹Jonathan Steinberg: *Yesterday's Deterrent*, p.25.

¹¹⁰Mommsen: *Kaiser Wilhelm II*, p.301f.; Lambi: *Navy*, p.158f.

¹¹¹It might seem that such a conjuncture was so peculiar as to have been only possible in Germany; the Tirpitz Plan would seem the outcome of that country's *Sonderweg*, or singular path of historical development. In fact, there is another contemporary example of a similar conjuncture: Russia after 1907. There also, the combination of the personal rule of a Tsar with an inclination towards the navy, expansionist bourgeois parties in the Duma and a construction plan based on the ideology of sea power skewed arms spending in favour of the navy. See the fascinating account of the motives (especially Izvol'skij's) behind the "Big" naval construction programme of 1909 and its acceleration in 1912, in K.F. Shatsillo: *Russkij imperializm i razvitie flota nakanune pervoj mirovoj vojny, 1906-1914gg.* (Moscow, 1968), pp.44-90. On the effects of the ensuing "disproportionate" spending on the navy, see *idem*: "O disproportsii v razvitii vooryzhenikh sil Rossii nakanune pervoj mirovoj vojny", in *Istoricheskie zapiski* 83 (1969), pp.123-36.

¹¹²Berghahn/Deist: *Rüstung*, p.134-36.

¹¹³Berghahn: *Der Tirpitz-Plan*, pp.102-7.

¹¹⁴*Ibid*, p.103.

¹¹⁵Berghahn/Deist: *Rüstung*, p.135. (My emphasis).

¹¹⁶*Ibid*, pp.122-27. (My emphasis).

¹¹⁷Hallmann: *Der Weg*, p.240f.; Lambi: *Navy*, p.143, for the following.

¹¹⁸Ratzel: *Das Meer als Quelle* (1910 ed.), pp.24, 33; Mahan: "Considerations Governing the Disposition of Navies", in *Mahan on Naval Strategy*, pp.281-319; Gemzell: *Organization*, p.79f.

¹¹⁹Draft of preamble, November 1897, in Berghahn/Deist: *Rüstung*, pp.147-54; here p.153.

¹²⁰Tirpitz: *Erinnerungen*, p.105f.; the following quote from Lambi: *Navy*, p.147. See also Paul M. Kennedy: "Tirpitz, England, and the Second Navy Law of 1900: A Strategical Critique", in *Militär-geschichtliche Mitteilungen*, 2 (1970), p.35ff.. for other references.

¹²¹See Berghahn: *Der Tirpitz-Plan*, *passim*, for the definitive treatment of this subject.

¹²²Dähnhardts memorandum of 2 Nov.1903, in Berghahn/Deist: *Rüstung*, pp.171-79.

¹²³Tirpitz explicitly stated this objective in a letter to Prince Heinrich of 28 Jan.1907, *Ibid*, p.323.

¹²⁴Tirpitz to Reich Chancellor Bülow, *Ibid*, pp.180-86.

¹²⁵Cf. Tirpitz's notes for an interview with Wilhelm on 26 Sept.1911, *Ibid*, p.335.

¹²⁶Berghahn: *Der Tirpitz-Plan*, p.194. See also Herwig: *The Failure of German Sea Power*, p.77 and his Introduction to Wolfgang Wegener: *The Naval Strategy of the World War*, ed. Herwig (Annapolis, Md., 1989), p.xvii.

¹²⁷The fundamental reason for this is a consequence of the theoretically indivisible nature of command: there is no difference between offensive and defensive warfare at sea. Tirpitz had himself recognized this in 1894.

¹²⁸In a letter to the Chief of the Admiralty Staff of 16 Sept. 1914, Tirpitz was desperately casting around for arguments in favour of a fleet offensive and even went so far as to claim that: "Almost always, throughout world history, weaker fleets have beaten stronger ones." *Erinnerungen*, p.312.

¹²⁹Assmann: *Gedanken*, II, p.320. These three articles by the head of the Historical Section of the navy contain a crushing indictment of Tirpitz's naval policy. Assmann is the only historian to have pointed out the incompatibility of Service Memorandum IX with the Risk Theory (*Gedanken*, I, pp.190f.). Cf. Rosinski: *Strategy and Propaganda*, pp.88f..

¹³⁰Which is the conclusion drawn by Paul Kennedy *Tirpitz, England*, pp.55-7 and *Strategic Aspects*, pp.158-60.

¹³¹Hallmann: *Der Weg*, p.262.

¹³²Interview of 28 Sept.1899, Berghahn/Deist: *Rüstung*, pp.159-62.

¹³³Schlachtflottenbau, p.317. (Kehr's emphasis). It is interesting to note, in light of the work of the later "Kehrite" school, that Kehr himself does not use it as evidence of Tirpitz's grand manipulative design. In Kehr's view, Tirpitz was above all an officer who sought to advance the interests of his service, but who was *also* attuned to social and political realities. The "palliative"-quote is therefore evidence that the «risk fleet» was the strategic *expression* of the "Sammlung" and not the centre around which it crystallized.

¹³⁴The term "Kehrite" was coined for this tendency by Wolfgang Mommsen in "Innenpolitische Bestimmungsfaktoren der deutschen Außenpolitik vor 1914", in *idem: Der autoritäre Nationalstaat. Verfassung, Gesellschaft und Kultur im deutschen Kaiserreich*, (Frankfurt, 1990), p.321f. The ensuing debate does not concern us here. For a survey, see Rolf Hobson: "Slutten på den tyske Sonderweg? Keiserrikets historiografi og Forbundsrepublikken går nye veier", *Historisk tidsskrift* 3/1989.

¹³⁵e.g. Kehr: *Schlachtflottenbau*, pp.7, 325f., 348. For Weber, see Mommsen: *Max Weber*, *passim*.

¹³⁶*Schlachtflottenbau*, p.403ff.

¹³⁷*Ibid*, p.431 and ff.

¹³⁸Wolfgang Mommsen points out the "Inkonsequenz" between Weber's attitudes towards England and towards the fleet in *Max Weber*, p.150.

¹³⁹Max Weber: *Zur Neuordnung Deutschlands* (Tübingen, 1991), p.65.

¹⁴⁰Mommsen: *Max Weber*, p.167.

¹⁴¹Kennedy: *Tirpitz, England & Strategic Aspects*.

¹⁴²*Tirpitz, England*, p.38.

¹⁴³*Ibid*. p.44.

¹⁴⁴*Ibid*. p.50.

¹⁴⁵Quoted in Berghahn: *Der Tirpitz-Plan*, p.390, Bülow to Wilhelm in Dec.1904. The latter answered: "My dear Bülow, how often I have used this very comparison myself in recent years!" In his *Erinnerungen*, p.51, Tirpitz writes that "The 'open door' that could all too easily be closed, was as important for us as their endless open spaces and inexhaustible natural resources were to the other world powers."

¹⁴⁶Brevet Lieutenant-Colonel R.H. Beadon: "The Sea Power of Germany and the Teaching of Mahan", in *JRUSI* 48 (1923), p.507; Wegener: *The Naval Strategy of the World War*, p.100.

¹⁴⁷Rosinski: *Strategy and Propaganda*, pp.84-7.

¹⁴⁸Even Tirpitz recognized that the Anglo-Saxon "blood-bond" would never acquiesce in the defeat of England, only in Germany's overtaking it peacefully, *Erinnerungen*, p.162.

¹⁴⁹e.g. *The Naval Strategy of the World War*, pp.120-27.

¹⁵⁰Adolf von Trotha, one of Tirpitz's closest collaborators and first biographers, went the whole hog and joined the Nazi party, as did Levetzow (Gemzell: *Organization*, pp.310, 317). Together with Michaelis, Wegener and several others, he demanded the revision of the Versailles Treaty as the first step on the road to a renewed struggle for world power with the Anglo-Saxons. On this topic, see the important articles and documents published by Gerhard Schreiber: (1) "Thesen zur ideologischen Kontinuität in den machtpolitischen Zielsetzungen der deutschen Marineführung 1897 bis 1945", in M. Messerschmidt et al. (eds): *Militärsgeschichte. Probleme - Thesen - Wege* (Stuttgart, 1982), pp.260-80; (2)

"Zur Kontinuität des Groß- und Weltmachtstrebens der deutschen Marineführung", in *Militärgeschichtliche Mitteilungen* 2 (1979), pp.101-71. Wegener is discussed in (1) p.263, and (2) pp.119f. The link between Wegener's ideas and geopolitics is apparent in Gadow: "Die seestrategischen Leitgedanken der schwachen Seemächte", in *Marine Rundschau*, Aug.-Sept. 1926.

¹⁵¹Perhaps it would be an idea to classify Wegener as a "maritime fascist" until such time as historians are given free access to his papers to prove otherwise? Gemzell (*Organization*, p.74) points out that Ratzel drew attention to the dangers of a wide blockade in *Das Meer als Quelle der Völkergröße* and that he also proposed acquiring territory bordering on the Atlantic. Herwig notes that Haushofer was greatly impressed by Wegener's book, Introduction, p.xxxvii.

¹⁵²Assmann outlined his ideas on U-boat warfare in "Wandlungen der Seekriegführung", in *Nauticus* (1943), pp.123-62; cf. Rosinski's comments in *Strategy and Propaganda*, pp.87-91.

¹⁵³Vagts: *A History of Militarism. Civilian and Military* (New York, 1959) pp.13ff.

¹⁵⁴Following on his important discovery of the Royal Navy's plans for a hunger blockade of Germany, Avner Offer has sought to justify the Tirpitz Plan as a rational and legitimate measure of national defence against the British threat. Cf. *The First World War: An Agrarian Interpretation* (Oxford, 1989), pp.325f. I do not share this view; but for reasons of space I must defer discussion of this subject to a more extensive study currently in preparation.

¹⁵⁵Hannah Arendt: *Elemente und Ursprünge totaler Herrschaft* (Munich, 1979), p.306.

¹⁵⁶Though it must be added in fairness that there is very little evidence that Tirpitz himself was an active anti-semite.

¹⁵⁷Readers who find that too strong an adjective, are advised to consider Castex's interpretation of history as the perpetual struggle between Europe and the Asian barbarians, Cf. Raoul Castex: *Strategic Theories*, ed. Eugenia C. Kiesling (Annapolis, Md., 1994), p.XXXV.

SOURCES

Unpublished material from the following archives

Bundesarchiv-Militärarchiv, Freiburg (BA-MA)
United States Naval War College (USNWC)

Periodicals (1875-1890)

Beihefte zum Marine-Verordnungsblatt
Marine Rundschau
Militär-Wochenblatt
Neue militärische Blätter
Revue der gesamten Armeen und Flotten

Théophile Aube: "La guerre maritime et les ports militaires de la France", in *Revue des deux Mondes*, 1882

Ludwig Borckenhagen: "Zum Studium der Seekriegsgeschichte, I, Aeltere und neuere Literatur", in *Marine Rundschau* (1896)

Curt von Maltzahn: "Seeherrschaft", in *Neue militärische Blätter*, June 1895

Curt von Maltzahn: "Friedrich Ratzel. Ein Gedenkwort", in *Marine Rundschau* (1905)

Curt von Maltzahn: "Was lehrt das Buch des Generals von Clausewitz "Vom Kriege" dem Seeoffizier?", in *Marine Rundschau* (1905), pp.683-702

Friedrich Ratzel: "Die nordatlantischen Mächte", in *Marine Rundschau* 1903

Published material

V.R. Berghahn & W. Deist: *Rüstung im Zeichen der wilhelminischen Weltpolitik. Grundlegende Dokumente* (Düsseldorf, 1988)

Julian Corbett: *Some Principles of Maritime Strategy* (1911 - Annapolis, Md., 1988)

- Ulrich von Hassell: *Tirpitz. Sein Leben und Wirken mit Berücksichtigung seiner Beziehungen zu Albrecht von Stosch* (Stuttgart, 1920)
- J.B. & L.C. Hattendorf (eds.): *A Bibliography of The Works of Alfred Thayer Mahan* (Newport, R.I., 1986)
- Alfred T. Mahan: "Blockade in Relation to Naval Strategy", in *Journal of the Royal United Services Institute* (1895)
- Alfred T. Mahan: *The Interest of America in Sea Power, Present and Future* (London, 1898), pp.107-36
- Alfred T. Mahan: *From Sail to Steam. Recollections of Naval Life* (N.Y., 1907)
- Alfred T. Mahan: *The Influence of Sea Power on History* (London, 1965)
- Mahan on Naval Strategy. Selections from the Writings of Rear Admiral Alfred Thayer Mahan*, ed. by John B. Hattendorf (Annapolis, Md., 1991)
- Curt Freiherr von Maltzahn: *Geschichte unserer taktischen Entwicklung* (Berlin, 1910-11), two volumes
- Friedrich Ratzel: *Das Meer als Quelle der Völkergröße. Eine politisch-geographische Studie* (Munich, 1900)
- Max Schneidwin: «Briefe des verstorbenen Reichskanzlers Caprivi» in *Deutsche Revue* 47 (1922)
- Schultheß' europäischer Geschichtskalender*
- Robert Seager II & Doris D. Maguire (eds.): *Letters and Papers of Alfred Thayer Mahan*, vol.I (Annapolis, Md., 1975)
- James R. Soley: *Report on Foreign Systems of Naval Education* (Washington, 1880)
- Alfred Stenzel: *Die deutsche Flotte und der Reichstag. Ein Wort zu Gunsten der Deutschen Wehrkraft zur See* (Berlin, 1892)
- Alfred Stenzel: *Kriegführung zur See. Lehre vom Seekriege* (Hannover & Leipzig, 1913)
- Alfred von Tirpitz: *Erinnerungen* (Leipzig, 1919)

BIBLIOGRAPHY

- Hannah Arendt: *Elemente und Ursprünge totaler Herrschaft* (Munich, 1979)
- Raymond Aron: *Penser la guerre. Clausewitz*, 2 vols. (Paris, 1976-77)
- Assmann: "Gedanken über die Probleme der deutschen Seekriegführung im Weltkrieg", I-III, in *Militärwissenschaftliche Rundschau* 1939
- Thomas Baecker: "Mahan über Deutschland", in *Marine Rundschau* 73 (1976), pp.10-19. 86-102
- James P. Baxter III: *The Introduction of the Ironclad Warship* (Cambridge, Mass., 1933)
- R.H. Beadon: "The Sea Power of Germany and the teaching of Mahan", in *JRUSI* 48 (1923)
- V.R. Berghahn: *Der Tirpitz-Plan. Genesis und Verfall einer innenpolitischen Krisenstrategie unter Wilhelm II* (Düsseldorf, 1971)
- Bernard Brodie: *Sea Power in the Machine Age* (Princeton, N.J., 1940)
- Arden Bucholz: *Hans Delbrück and the German Military Establishment. War Images in Conflict* (Iowa City, 1985)
- Volkmar Bueb: *Die "Junge Schule" der französischen Marine. Strategie und Politik 1875-1900* (Boppard am Rhein, 1971)
- Lothar Burchardt: *Friedenswirtschaft und Kriegsvorsorge. Deutschlands wirtschaftliche Rüstungsbestrebungen vor 1914* (Boppard, 1968)
- Raoul Castex: *Strategic Theories*, ed. Eugenia C. Kiesling (Annapolis, Md., 1994)
- Roger Chickering: *We Men Who Feel Most German. A Cultural Study of the Pan-German League, 1886-1914* (Boston, 1984)
- Carl von Clausewitz: *On War*, ed. and trans by Peter Paret & Michael Howard (Princeton, N.J., 1976)
- J.C.R. Colomb: *The Protection of Our Commerce and Distribution of our Naval Forces Considered* (London, 1867)

- Etienne Colson: *La culture stratégique américaine. L'influence de Jomini* (Paris, 1995)
- Hervé Coutau-Bégarie: *La puissance maritime. Castex et la stratégie navale* (Paris, 1985)
- Philip Crowl: "Alfred Thayer Mahan: The Naval Historian", in Peter Paret (ed.): *Makers of Modern Strategy from Machiavelli to the Nuclear Age* (Princeton, N.J., 1986)
- Wilhelm Deist: *Flottenpolitik und Flottenpropaganda. Das Nachrichtenbüro des Reichsmarineamts* (Stuttgart, 1976)
- Geoff Eley: *Sammlungspolitik, Social Imperialism and the Navy Law of 1898*" in *idem: From Unification to Nazism. Reinterpreting the German Past* (Boston, 1986), pp.110-53
- Geoff Eley: *Reshaping the German Right. Radical Nationalism and Political Change after Bismarck* (Ann Arbor, 1991)
- Michael Epkenhans: "Seemacht = Weltmacht. Alfred T. Mahan und sein Einfluß auf die Seestrategie des 19. und 20. Jahrhunderts" in Elvert/Jensen/Salewski (eds.): *Kiel, die Deutschen und die See* (Stuttgart, 1992), pp.35-47
- Stig Förster: *Der doppelte Militarismus. Die deutsche Heeresrüstungspolitik zwischen status-quo-Sicherung und Aggression 1890-1913* (Stuttgart, 1985)
- Friedrich Forstmeier: "Probleme der Erziehung und Ausbildung in der Kaiserlichen Marine in Abhängigkeit von geistiger Situation und sozialer Struktur", in *Marine Rundschau* 1966, pp.189-98
- Gadow: "Die seestrategischen Leitgedanken der schwachen Seemächte", in *Marine Rundschau*, Aug.-Sept. 1926
- Azar Gat: *The Development of Military Thought. The Nineteenth Century* (Oxford, 1992)
- Azar Gat. *The Origins of Military Thought. From the Enlightenment to Clausewitz* (Oxford, 1989)
- Carl-Axel Gemzell: *Organization, Conflict and Innovation: A Study in German Naval Strategic Planning, 1888-1940* (Lund, 1973)
- Baron Jean-Baptiste Grivel: *De la guerre maritime avant et depuis les*

nouvelles inventions (Paris, 1869)

Herbert Graubohm: *Die Ausbildung in der deutschen Marine von ihrer Gründung bis zum Jahre 1914* (Düsseldorf, 1977)

Otto Groos: *Seekriegslehren im Lichte des Weltkrieges* (Berlin 1929)

Kenneth J. Hagan: "Alfred Thayer Mahan. Turning America Back to the Sea", in F.J. Merli & T.A. Wilson: *Makers of American Diplomacy*, vol.I (1974), pp.279-304.

Hans Hallmann: *Der Weg zum deutschen Schlachtflottenbau* (Stuttgart, 1933)

Hans Hallmann: *Krügerdepesche und Flottenfrage* (Stuttgart, 1927)

C.I. Hamilton: *Anglo-French Naval Rivalry 1840-1870* (Oxford, 1993)

Holger Herwig: "The Failure of German Sea Power, 1914-1945: Mahan, Tirpitz, and Raeder Reconsidered", in *International History Review*, X (1988)

Holger Herwig: "The Influence of A.T. Mahan Upon German Sea Power", in John B. Hattendorf (ed.): *The Influence of History on Mahan* (Newport, R.I., 1991)

Rolf Hobson: *Fra kabinettskrigen til den totale krigen. Clausewitz-tolkninger fra Moltke til Aron* (Oslo, *Forsvarsstudier* 6/1994)

Samuel P. Huntington: *The Soldier and the State. The Theory and Politics of Civil-Military Relations* (Cambridge, Mass., 1957)

Eckart Kehr: *Schlachtflottenbau und Parteipolitik 1894-1901. Versuch eines Querschnitts durch die innenpolitischen, sozialen und ideologischen Voraussetzungen der deutschen Imperialismus* (Berlin, 1930)

Patrick J. Kelly, *The Naval Policy of Imperial Germany, 1900-1914* (Ph.D. dissertation, Georgetown University, 1970)

Patrick J. Kelly: *Tirpitz as Bureaucrat- Politician* (unpublished paper, 1976)

Patrick J. Kelly: "Tirpitz and the Development of the German Torpedo Arm", in *Naval History, the proceedings of the Eleventh Naval History Symposium* (USNA Annapolis, 1993), forthcoming

Paul M. Kennedy: "Strategic Aspects of the Anglo-German Naval Race", in *Strategy and Diplomacy 1870-1945* (London, 1983)

- Paul M. Kennedy: "Tirpitz, England, and the Second Navy Law of 1900: A Strategical Critique", in *Militärgeschichtliche Mitteilungen*, 2 (1970)
- Ivo Nikolai Lambi: *The Navy and German Power Politics 1862-1914* (Boston, 1984)
- William H. McNeil: *The Pursuit of Power. Technology, Armed Force, and Society since A.D. 1000* (Chicago, 1982)
- G.J. Marcus: *A Naval History of England*, vol.2, *The Age of Nelson* (London, 1971)
- Arthur Marder: *The Anatomy of British Sea Power* (New York, 1940)
- Philippe Masson: *De la Mer et de sa stratégie* (Paris, 1986)
- Michel Mollat (ed.): *Les origines de la navigation à vapeur* (Paris, 1970)
- Helmuth von Moltke: *Die deutschen Aufmarschpläne 1871-1890*, ed. Schmerfeld (Berlin, 1929)
- Wolfgang J. Mommsen: "Innenpolitische Bestimmungsfaktoren der deutschen Außenpolitik vor 1914", in *idem: Der autoritäre Nationalstaat. Verfassung, Gesellschaft und Kultur im deutschen Kaiserreich*, (Frankfurt, 1990)
- Wolfgang J. Mommsen: "Kaiser Wilhelm II and German Politics", in *Journal of Contemporary History*, 25 (1990), pp.289-316
- Wolfgang J. Mommsen: *Max Weber und die deutsche Politik 1890-1920* (2nd ed., Tübingen, 1974)
- Avner Offer: *The First World War: An Agrarian Interpretation* (Oxford, 1989)
- Peter Paret: *Clausewitz and the State* (Princeton, N.J., 1976)
- Claude Raffestin, D. Lopreno & Y. Pasteur: *Géopolitique et histoire* (Lausanne, 1995)
- John C.G. Röhl: "Der Königsmechanismus", in *idem: Kaiser, Hof und Staat*
- Theodore Ropp: *The Development of a Modern Navy. French Naval Policy 1871-1904* (Annapolis, Md., 1987)
- Theodore Ropp: *War in the Modern World* (New York, 1962)
- Herbert Rosinski: "Die Entwicklung von Clausewitz' Werk Vom Kriege im Lichte seiner Vorreden und Nachrichten", in *Historische Zeitschrift*, (1935), pp.278-93
- Herbert Rosinski: "Command of the Sea"; "Mahan and World War II";

"Strategy and Propaganda in German Naval Thought", reprinted in B. Mitchell Simpson III (ed.): *The Development of Naval Thought. Essays by Herbert Rosinski* (Newport, R.I., 1977)

Gerhard Schreiber: "Thesen zur ideologischen Kontinuität in den machtpolitischen Zielsetzungen der deutschen Marineführung 1897 bis 1945", in M. Messerschmidt et al. (eds): *Militärgeschichte. Probleme - Thesen - Wege* (Stuttgart, 1982), pp.260-80

Gerhard Schreiber: "Zur Kontinuität des Groß- und Weltmachtstrebens der deutschen Marineführung", in *Militärgeschichtliche Mitteilungen* 2 (1979), pp.101-71

Donald Schurman: *The Education of a Navy. The Development of British Naval Strategic Thought* (London, 1965)

Robert Seager: *Alfred Thayer Mahan. The Man and His Letters* (Annapolis, Md., 1977)

K.F. Shatsillo: "O disproportsi v razvitii vooryzhenikh sil Rossii nakanune pervoj mirovoj vojny", in *Istoricheskie zapiski* 83 (1969), pp.123-36

K.F. Shatsillo: *Russkij imperializm i razvitie flota nakanune pervoj mirovoj vojny, 1906-1914gg.* (Moscow, 1968), pp.44-90

Ronald Spector: *Professors of War. The Naval War College and the Development of the Naval Profession* (Newport, R.I., 1977)

Harold & Margaret Sprout: *The Rise of American Naval Power, 1776-1918* (Princeton, N.J., 1939)

Richard P. Stebbins: *The Career of Herbert Rosinski. An Intellectual Pilgrimage* (New York, 1989)

Jonathan Steinberg: *Yesterday's Deterrent. Tirpitz and the Birth of the German Battle Fleet* (London, 1965)

U. von Stosch (ed.): *Denkwürdigkeiten des Generals und Admirals Albrecht von Stosch* (Berlin, 1904)

Alfred Vagts: *A History of Militarism. Civilian and Military* (New York, 1959)

Ekkhard Verchau: "Von Jachmann über Stosch und Caprivi zu den Anfängen der Ära Tirpitz", in Schottelius & Deist (eds.): *Marine und Marinepolitik 1871-1914* (Düsseldorf, 1972), pp.54-72

Jehuda Wallach: *The Dogma of the Battle of Annihilation. The Theories of Clausewitz and Schlieffen and their Impact on the German Conduct of Two World Wars* (Westport, Ct., 1986)

Max Weber: *Zur Neuordnung Deutschlands* (Tübingen, 1991)

Russell F. Weigley: *The American Way of War. A History of United States Military Strategy and Policy* (Bloomington, Id, 1973)

Gary Weir: *Building the Kaiser's Navy* (Annapolis, 1990)

The German School of Naval Thought

This study describes the origins of the German school of naval thought. Its approach to the theory of naval warfare differed significantly from that of the British "Blue Water" school and the French *Jeune école*. The Prussian professionalization of military education and Clausewitz's theories were the most important formative influences on the early German school. In the first half of the 1890s Alfred Tirpitz honed its abstract strategic axioms on the realities of modern naval warfare and Germany's defence needs to produce precisely defined operational doctrines. During the second half of the decade these were in turn superseded by an ideology of sea power which provided a completely different interpretation of the tasks and capabilities of navies. This was chiefly derived from the works of Alfred Thayer Mahan, the third major formative influence on the German school. Out of that school grew the Tirpitz Plan, Germany's attempt to gain the status of a twentieth-century world power by building a fleet to rival Britain's.

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