



THE INFLUENCE OF THE BOER WAR (1899 – 1902) ON THE TACTICAL DEVELOPMENT OF THE REGULAR BRITISH ARMY 1902 – 1914

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Abstract

This thesis examines the influence of the Boer War 1899 – 1902 upon tactics and training in the regular British Army 1902 – 1914. The work argues that several key lessons drawn from South Africa became the tactical cornerstones for infantry, artillery and cavalry throughout the pre-First World War period and shaped the performance of the B.E.F. during the early battles of 1914. The experience of combat against well armed opposition in the Boer War prompted the British Army to develop improved tactics in each of the three major service arms. For example, infantry placed new emphasis on dispersion and marksmanship; cavalry improved their dismounted work and reconnaissance skills; and artillery adopted methods of concealment and strove to improve accuracy and co-ordination. Across the army as a whole, the experience of combat lead to an overall downgrading of the importance of drill and obedience, replacing it instead with tactical skill and individual initiative. In addition, the thesis also examines the impact of the Boer War upon overall British Army doctrine and ethos.

The process of reform prior to the First World War was marked by wide ranging debates upon the value of the South African experience, and not all lessons drawn from the conflict endured, with tactical restructuring being further complicated by changes of government and financial restrictions. Nevertheless, key lessons such as dispersion, marksmanship, concealment and firepower were ultimately retained and proved to be of great value during initial clashes against the Germans in 1914. Additionally, the Boer War caused the British to place new emphasis upon overall training of the individual, allowing advanced tactical skills to be inculcated more easily than had been possible in earlier years.

However, the short duration of the conventional period of the Boer War meant that there was less opportunity to derive operational lessons for future employment. Furthermore, the colonial policing role of the British Army and the likelihood of small scale deployments meant that developing an operational doctrine was of less immediate value than ensuring flexibility and tactical skill. This meant that the British Army took a somewhat skewed developmental path in the 1902 – 1914. The process of reform ultimately produced a highly adaptable force that was tactically skilled, but which was ill-prepared for the operational complications posed by large scale deployment.

While the Boer War was the principal factor in driving reform during the 1902 – 1914 period, there were additional influences at work, including examples from the Russo-Japanese War 1904 – 1905 and various ideas drawn from the armies of the continent. However, this thesis argues that while these outside influences contributed to ongoing debate, they did not offer any particular fresh ideas and were therefore of less importance than the Boer War in shaping British Army development.

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Introduction and Literature Review

The 1902 – 1914 period was one of the most critical in the history of the development of the British Army to that date. In the twelve years between the end of the Boer War and the outbreak of the First World War, the army underwent vast and important organisational and tactical reforms that ultimately produced, in the words of historian John Dunlop, “...incomparably the best trained, best organised, and best equipped British Army which ever went forth to war.”¹ The Boer War 1899 – 1902 played an important part in creating this elite force. The shock of battlefield defeat dispelled the aura of complacency that had settled over the British Army during the years of easy victories against crudely armed foes during the Victorian era. Faced with determined and well armed opponents in unusual climatic conditions, the British were forced to confront the key tactical problem of how to cross the fire swept zone in an age of smokeless ammunition and magazine rifles. The shock of new conditions led to a series of disturbing defeats in the early part of the war. Although the army was ultimately able to adapt and overcome the Boers, the duration and cost of the war led to public outcry and searching introspection within the military. Furthermore, the hostile attitude of continental powers such as France, Germany and Russia during the war left Britain feeling especially vulnerable. In this respect, the conflict in South Africa provided the key impetus to undertake a thorough overhaul of the British Army in the years following the end of the conflict.

However, while many historians have identified the Boer War as being a catalyst for change and reform in the British Army, this has tended to focus upon organisational level reform, as characterised by the creation of the Territorial Army and the General Staff.² Other writers have commented upon the tactical skill demonstrated by the British in 1914, but have neglected or referred only in passing to the role of the Boer War in developing the army to this level.³ Some historians have even seen the South Africa experience as a negative influence.⁴ The comparative lack of detailed study of the influence of the Boer War upon tactics in the 1902 – 1914 period represents a gap in the historiography. This in turn has led to recent historical studies of the B.E.F. of 1914 offering only vague assertions that the Boer War had played a role in tactical reform.⁵ Therefore, it is the aim of this thesis to analyse the extent to which the bitter conflict in South Africa shaped the tactical and operational development of the British Army 1902 - 1914.

¹ Dunlop, John, *The Development of the British Army 1899-1914* (Methuen, London, 1938) p.305

² Teagarden, Ernest, *Haldane at the War Office: A Study in Organization and Management*, (New York, Gordon Press, 1976); Tyler, J.E., *The British Army and the Continent 1904-1914* (London, Edward Arnold & Co, 1938); Bryce Poe II, “British Army Reforms 1902 – 1914” in *Military Affairs* 31(3), 1967, pp.131 - 138

³ For example, Terraine, John, *Mons: The Retreat to Victory* (Ware, Wordsworth Editions, 2000 reprint)

⁴ Searle, G.R, *The Quest for National Efficiency: A Study in British Politics and Political Thought 1899-1914* (Oxford, Basil Blackwell, 1971) p.50

⁵ Neillands, Robin, *The Old Contemptibles: The British Expeditionary, 1914*, (London, John Murray, 2004) pp.100, 136, 138

The terms doctrine, strategy, operations and tactics will be used throughout this thesis and it is important to define their meaning. The meaning of these phrases has altered subtly since they were first introduced, and thus modern definitions will be used to avoid confusion. Military doctrine, in the words of Stephen Badsey, "...means the prescriptive setting out of the courses of action the armed forces should follow".⁶ In the 21st century the definition of military doctrine has come to mean centralised, written guidelines for the conduct of military operations and tactics, and it is this definition that will be used throughout this work. Military strategy is the question of how to fight wars and win campaigns using the military forces available to an army. Operations relate to the handling of armies and larger formations such as corps and divisions during campaigns and in battle. Tactics refer to the manner in which lower level formations, typically brigade level and below, actually fight in battle. Unless otherwise stated, these definitions will be used throughout this work.

While the Boer War was a key element in the development of tactics in the 1902 – 1914 period, there were additional factors which shaped the tactical reform of the British Army. The Russo-Japanese War 1904-1905 distracted attention away from the South Africa experience and instead towards a conflict between two modern, regular armies equipped in the European style. Observers from Europe's armies flocked to study the war in Manchuria, their reports and observations sparking considerable debate within the British Army. Both the reformists and the more traditionally minded within the British Army used the conflict in the Far East to provide evidence to support their respective cases. However, as with South Africa, the apparent lessons from the war were not as clear-cut as some writers at first believed, and debate continued.⁷ The ambiguous nature of the lessons from the Russo-Japanese War meant that European militaries tended to use the examples to confirm existing ideas rather than change their thinking. In the case of the British Army, this meant that while the Manchurian conflict had relatively little direct impact upon tactics, it served as a prism through which many of the earlier Boer War lessons were viewed. Furthermore, as the period drew on and Britain became linked more closely through alliance to France, a third influence began to emerge upon the army, particularly the artillery, as French thinking filtered through into the British military. As war with Germany became ever more likely the example of the French, also preparing for a war with the Germans, drew attention from the Royal Artillery who began to wonder whether their tactical and operational ideas were suitable for continental warfare. French infatuation with the offensive also filtered into elements of the British Army, lending credence to arguments from traditional thinkers who rejected the arguments of the revisionist firepower school.

Thus in addition to the combat experience of the Boer War, several other influences were contributing to British tactical and operational thought in the years preceding the First World War. However,

⁶ Badsey, Stephen, *Doctrine and Reform in the British Cavalry 1880-1918*, (Aldershot, Ashgate, 2008) p.3

⁷ Keith Neilson, "That Dangerous and Difficult Enterprise: British Military Thinking and the Russo-Japanese War" in *War and Society*, 9(2), 1991, p.31

historical analysis of this vitally important period for the British Army has largely focused upon the strategic and larger organisational reforms that were underway at the same time. Studies of the reforms of Haldane and the creation of the British Expeditionary Force have shed light upon the organisation of the army without examining the tactical changes that were also being debated.⁸ While some aspects of tactical reform have received attention from historians, notably within the cavalry and at operational level, wider analysis of tactics in the British Army has been lacking, with only a handful of studies touching on this large and important issue. Although the British Expeditionary Force of 1914 has often been praised by historians for its high levels of training and impressive marksmanship, the process by which it grew and developed tactically from the Victorian army which had received repeated defeats at the hands of the Boers is a comparatively neglected field of study. It is the intention of this thesis to help fill this gap in the historiography of the British Army.

While the Boer War 1899 – 1902 ultimately provided a huge shock for the British Army, at the outset of war there appeared to be little cause for concern. Indeed, the conflict appeared, on paper, to be a mismatched struggle. On one side stood the two small Boer republics of Transvaal and Orange Free State, principally agrarian nations, with armies composed almost entirely of irregular militia called out by the government in times of crisis. Opposing them was the might of imperial Britain, commanding the greatest empire on earth, able to deploy regular troops from stations around the globe as well as able to draw upon volunteers from her white dominions of Canada, Australia and New Zealand. Yet the war would prove to be by far the largest and most costly of all the colonial campaigns fought by Victorian Britain. Victory over the two Boer Republics only came after a long and bitter struggle that left substantial parts of South Africa devastated. Over the course of the war the forces of the British Empire suffered some 22,000 casualties suppressing the resistance of the Boers in a conflict that lasted almost three years.

The cost and duration of the war were all the more shocking given the string of virtually unbroken successes that the British Army had hitherto enjoyed in earlier colonial wars. The Victorian era was marked by a staggering number of these “small wars”. For example, from 1838 to 1868, Britain was involved in at least one war every year except 1862, when it came close to hostilities with the United States over the *Trent* affair.⁹ In fact, the Boer War of 1899 – 1902 marked the 226th out of 230 imperial conflicts that would be fought during Victoria’s reign.¹⁰ These wars were fought in an enormous variety of geographical and climatic conditions, from the deserts of Egypt and the Sudan, to the jungles of Burma or the forests of New Zealand. The variety of terrain was matched by the varied

⁸ For example, Teagarden, *Haldane at the War Office*; Tyler, *The British Army and the Continent*; Gooch, John, *The Plans of War: The General Staff and British Military Strategy c.1900 – 1914* (London, Routledge, 1974)

⁹ Amery, Leo (ed.), *The Times History of the War in South Africa*, (London, Sampson Low, Marston and Company, 1905), Vol.2, p.9

¹⁰ Wessels, Andre (ed.), *Lord Roberts and the War in South Africa 1899-1902* (Stroud, Army Records Society, 2000) p.xiii

nature of Britain's enemies, from the Egyptian and Sikh armies, trained and organised on European lines, to the primitively armed but highly disciplined Zulus, to the fanatical and reckless Dervishes. However, in general the quality of military opposition faced in these campaigns was not up to the standard of the British army, although its opponents were capable of forcing hard fighting and even inflicting the occasional defeat. Nevertheless, the technological and organisational advantage possessed by the British Army typically proved decisive, and in wars from 1857 onwards, British forces only lost 100 men killed in a single action twice prior to the Boer War, whereas their foes often suffered severe casualties.¹¹

The wide variety of colonial experience was well illustrated by two campaigns that took place in different corners of the empire in 1898, a year before the outbreak of the Boer War. In the Sudan, a British force aiming to re-establish control of the volatile region fought the Battle of Omdurman, in which an Anglo-Egyptian army of around 25,000 men faced a Mahdist army of over 40,000. The Mahdists attacked in close formation across open ground and were met by a well formed British line, which initially fired by volley. Despite their courage and fanaticism, the Dervishes were simply annihilated by superior firepower. By the end of the battle the Mahdist army had suffered over 20,000 casualties, with almost 10,000 killed, compared to just over 100 men killed suffered by the British.¹² Conversely, from 1897-98, thousands of miles away on the notorious North West Frontier of India, British and Indian troops fought the Tirah campaign, considered at the time to be the most trying since the Mutiny.¹³ As in the Sudan, tribal attacks in the open were devastated by magazine fire, but the Afridi tribesmen soon began to employ skirmishing tactics using modern breech loading weapons, and were able to inflict a number of casualties at long range, while suffering few in return.¹⁴ Volley fire, devastating in the Sudan, was of little use against fleeting targets, and close order formations were dangerous and impractical. Instead, one officer who fought in the campaign stated, "In hill-fighting, cover *must* be taken advantage of".¹⁵ The local difficulties of the fighting necessitated a rough guide to tactics being circulated to troops in the field while the operations continued.¹⁶ Ultimately, although both campaigns ended in British victory, the methods necessary to achieve success were strikingly different and illustrate the tremendous difficulties of formulating a doctrine that would be appropriate for all possible eventualities.

¹¹ Ian Beckett, "The South African War and the Late Victorian Army" in Davis & Grey (eds.) *The Boer War: Army, Nation and Empire* (Canberra, Army History Unit, 2000) p.33

¹² Cyril Falls, "The Reconquest of the Sudan, 1896-1898" in Bond, Brian (ed.) *Victorian Military Campaigns*, (London, Tom Donovan, 1967) pp.299-301

¹³ Tim Moreman, "The British and Indian Armies and North West Frontier Warfare 1849-1914" in *Journal of Imperial and Commonwealth History* 20(1), 1992, p.49

¹⁴ Captain H.R Mead, "Notes on Musketry Training of Troops" in *Journal of the Royal United Services Institute* 42 (1899) p.235

¹⁵ Major General Sir W.F. Gatacre, "A Few Notes on the Characteristics of Hill Fighting in India" in *Journal of the Royal United Services Institute* 43 (1899) p.1072

¹⁶ Moreman, "Northwest Frontier Warfare", *JICH* 20(1), 1992, p.52

The Sudan and Tirah campaigns were particularly significant for the British in that they demonstrated the potential problems posed by the latest improvements in firepower. Omdurman demonstrated the risks entailed in attack across open ground against a foe armed with modern weaponry, while Tirah showed the difficulty of engaging a well armed foe who refused to fight in the open. The lessons of Tirah could have been of particular use for the British in the early part of the Boer War, but despite being involved in more combat than any other European army throughout the 1880s and 1890s, the variety of campaigns and their small scale meant that unless a disaster occurred they tended to leave little mark on the army as a whole. In addition, lack of a general staff or any real doctrinal guidance from the top down meant that any learning from these experiences was limited. Although faced with a profusion of wars from which to draw examples, there was no formal system for disseminating tactical lessons drawn from combat to the wider army. While prior combat experience could have a positive effect on individual units, it generally had little influence outside the regiments and officers that had fought in the action.

With no real system of disseminating tactical knowledge outside of unit and theatre, the majority of the army was forced to rely upon the drill books and standard training to prepare it for war. Unfortunately, training throughout this period varied greatly in quality and practicality. Despite the profusion of wars which the army had been called upon to fight during the Victorian period, attitudes towards field training were slow to catch up. An 1883 official work, *Life in the Ranks of the English Army*, described drilling and guard work as “by far the most important (duties) that the private soldier has to do”, while including no mention whatsoever of shooting or field craft.¹⁷ Victorian drill manuals varied in quality and provided little overall guidance for regimental officers, and indeed frequently contradicted one another on fundamental principles.¹⁸

Training and tactics were further limited by a lack of ground over which to conduct manoeuvres and the constant need to supply drafts for India, reducing the number of men available for company training. Under such circumstances, individual training of the men focused upon gymnastics to improve the soldier physically and drill to inculcate a strong sense of discipline.¹⁹ This produced sturdy soldiers who were noted for their quiet endurance of hardship and pluck in the face of adversity, but left serious gaps, particularly with regard to field craft and musketry. Marksmanship was a notable problem, with miserly allowances of practice ammunition preventing the development of individual accuracy in most regiments. Instead, rigid fire control tactics were endorsed and volley fire was employed in most circumstances, despite the fact that these methods had been proved inadequate in Tirah and in earlier conflicts against the Boers.

¹⁷ Quoted in Dunlop, *The Development of the British Army 1899-1914*, p.37

¹⁸ Gooch, *The Plans of War*, pp.27-28

¹⁹ Grierson, J.M., *Scarlet into Khaki*, (London, Greenhill, 1988 reprint) p.173

Although the British Army was forced to prepare to fight a variety of opponents, it found itself ill-equipped for the unusual style of combat thrust upon it in the Boer War. The depressingly flat nature of much South African terrain gave excellent fields of fire for the latest rifles, while smokeless powder and exceptionally long ranges made the Boers a virtually invisible foe. However, years of North West Frontier fighting and the recent Tirah campaign had highlighted a number of the problems that would be faced in South Africa, particularly regarding the inadequacy of volley fire and the need for greater fieldcraft and individual skill. While the unusual conditions found in South Africa were undoubtedly contributory factors, the early defeats suffered by the British Army during the Boer War were also due to faulty tactics, the inadequate training of much of the army, and the inability to disseminate useful tactical lessons drawn from colonial experience.²⁰

The opening moves of the Boer War saw the Boers invade Natal, defeating British forces stationed there and laying siege to them in Ladysmith, while simultaneously besieging the western towns of Mafeking and Kimberly. Forces despatched from Britain to South Africa under the overall command of Sir Redvers Buller moved against the besieging Boers in December, only to meet a trio of separate defeats in offensive battles over the course of five days, a period dubbed 'Black Week' by the British press. These humiliating reverses prompted a reshuffle of command of British forces in South Africa, with the venerable but highly respected Lord Roberts despatched to take supreme command of the armies in South Africa. Roberts was able to lead an invasion of first the Orange Free State and then Transvaal, occupying their respective capitals and seeming to scatter the Boer armies before him. With the Boer Republics overrun, the war appeared to be effectively over by mid-1900. Lord Roberts returned to England and command passed to his Chief of Staff, Lord Kitchener. However, although the conventional war was over, the Boers refused to acknowledge defeat and instead turned to a guerrilla campaign that was to continue without abatement for another two years. Frustrated by the duration of the war and the elusive nature of the Boer commandos, the British resorted to increasingly brutal methods to suppress the insurgency. The policy of burning farms believed to be supporting commandos had been originally implemented under Lord Roberts, but it was widely extended under Kitchener to deny supplies to the Boer guerrillas. The scorched earth policy displaced large numbers of Boer civilians who were herded into concentration camps, where poor conditions and high mortality rates caused public outrage in Britain and left a lasting legacy of bitterness.²¹ Allied to these controversial policies, the British Army conducted a number of drives across the country, aiming to catch the small Boer commandos amongst converging forces. However, the vast geography of South Africa meant that these operations only became truly effective after the 'Blockhouse' system was

²⁰ For criticism of pre-Boer War training, see Major A.W.A Pollock, "The Battle Drill of Infantry", in *Journal of the Royal United Services Institute* 42(1), 1898, pp.540, 554. For the impact of faulty tactics in the Boer War, see 'A British Officer', *An Absent Minded War*, (London, John Milne, 1900), pp.8-9.

²¹ Hall, Darrell, *The Hall Handbook of the Anglo-Boer War 1899 – 1902* (Pietermaritzburg, University of Natal Press, 1999) p.152

introduced. The construction of large blockhouse lines deprived the Boers of mobility and allowed the British to pin them against fixed fortifications. Ultimately, the relentless pressure imposed by these policies finally forced the remaining *bittereinder* Boers to the conference table in May 1902.

Although the war proved to be long and costly, the British Army showed its capacity for in-theatre learning throughout the conflict. The clashes of “Black Week” were particularly poorly handled, with the battles of Colenso and Magersfontein offering examples of the flawed British tactical approach in the early part of the war.²² In both cases, lack of mounted troops deprived the British of the ability to outflank the Boers, and instead they were forced into frontal attacks. The unexpected conditions created by smokeless powder made reconnaissance difficult, making effective artillery preparation problematical. In both battles, the failure to identify the main Boer position led to the artillery wasting time and ammunition shelling empty areas, inflicting minimal casualties and merely alerting the Boers to the impending assault. Once the attacks began, the British infantry were first stopped and then pinned down by the volume of rifle fire from concealed Boers. Nevertheless, the British gradually learned from their defeats and changed their approach. Lord Roberts favoured using widely extended infantry to pin down the Boers with frontal attacks, while British mounted forces turned the flanks.²³ The Boers had little inclination towards close combat, and typically chose to withdraw once they became aware they had been outflanked. This won victories at a low cost, but also allowed the Boers to escape relatively intact, allowing them to adopt guerrilla tactics from the latter part of 1900 onwards. In Natal, the rugged terrain made such flanking attacks more difficult, and Buller’s army was forced to fight through Boer positions step by step. Although the army suffered stinging defeats at Colenso, Spion Kop and Vaal Krantz, it learned from its experiences and devised a new tactical approach based upon close co-operation between infantry and artillery. This culminated in the series of battles for control of Tulega Heights in February 1900 that ultimately broke the Boer siege of Ladysmith.²⁴ British artillery fire plans were carefully organised, and in contrast to the preparatory bombardments of 1899, the guns continued to fire in support of the advancing infantry to the very last minute, suppressing the Boer riflemen and allowing the infantry advance to storm the enemy position.

Although the British were able to adapt tactically and ultimately defeat the Boers, the length and difficulty of the struggle laid bare numerous strategic and tactical weaknesses, as well as serious organisational flaws. The immense difficulty the professional British Army experienced in trying to defeat an enemy composed almost entirely of untrained militia raised grave doubts over its ability to perform against a formally organised and trained European foe. The exposure of tactical and

²² For a particularly damning critique of these two battles, see Amery, L.S. (ed.) *The Times History of the War in South Africa*, Volume 2. (London, Sampson Low, Marston and Company 1902), pp.386-415 and pp.433 – 458 respectively.

²³ TNA WO 105/40 – “The Boer War Through German Glasses” (no pagination)

²⁴ Gillings, Ken, *The Battle of the Thukela Heights: 12 – 28 February 1900* (Randburg, Ravan Press, 1999) p.34

operational shortcomings within all three service branches of the British Army led to a great deal of introspection in the immediate aftermath of the conflict. Equipment, training and tactical thought all underwent revision based upon the experience of the war in South Africa. Many preconceived ideas, often based upon the study of the earlier Franco-Prussian War, did not survive the test of combat upon the veldt. Equipment was revised and improved and the nature of combat in an age of smokeless powder and magazine rifles received debate and consideration from within the service. The war did not pass unnoticed by armies on the continent, and foreign writers, particularly in Germany, also weighed in with their opinions on the perceived lessons of the war.²⁵ However, the varied nature of the fighting, encompassing siege operations, set piece battles and a protracted guerrilla campaign, all taking place across a vast geographical area, made analysis difficult. A consensus upon clear-cut lessons did not immediately emerge, while inter-service rivalry, social snobbery and the continuing struggle between cliques within the officer corps confused the issues still further. A further limitation was the fact that the British Army lagged far behind the prestigious Royal Navy in allocation of funds and resources. Reforms were set in motion, but discussion and debate on the lessons to be learned continued and some of the changes were not carried through to their full potential, or were neglected entirely. Indeed the 1902-1914 period was consistently characterised by a struggle between the reformists and the traditionalists, not only within the British Army but also within Edwardian society as a whole.²⁶ A disturbing sense of overall British decline resulted in an impulse towards the idea of 'national efficiency' within the country to maintain Britain's place amongst rival continental and world powers, with the poor performance in the Boer War serving to drive this feeling home within the British Army.

In terms of existing literature on the subject, the historiography of the Boer War and the period of development within the British Army that followed can be seen as having two distinct phases. The earliest views upon the war emerged during and immediately after the conflict, providing the basis for orthodox interpretations of the war that would endure for over fifty years. In later years, the First World War inevitably came to overshadow the Boer War and writing on the earlier conflict declined as a result. Compared to the colossal bloodletting of 1914-18, the struggle in South Africa seemed trifling, and, in military terms, largely irrelevant. The cultural legacy of the war, especially in South Africa, ensured its remembrance but amongst historians the conflict merited little work of note until a growth in interest in the study of the late Victorian army began in the late 1960s and early 1970s. The era marked the passing of the last few veterans of the wars of the 19th century, including survivors of

²⁵ For example; Captain R. Trimmel, "South African Campaign" in *Journal of the Royal United Service Institute* 45(1) 1901, pp.182 - 190; Field Marshal Gustavus Retzenhoffer, "A Retrospect of the War in South Africa" in *Journal of the Royal United Services Institution*, 45(1) 1901, pp.40 - 50; General Baron Colmar von der Goltz, "What Can We Learn From the Boer War?" in *Journal of the Royal United Services Institution*, 46(2) 1902, pp.1533 - 1539; Lieutenant Colonel von Lindeau, "What Has the Boer War to Teach us as Regards Infantry Attack?" in *Journal of the Royal United Services Institution*, 47(1) 1903, pp.48 - 56

²⁶ For a comprehensive study of this issue, see Searle, *The Quest for National Efficiency*

the Boer War, prompting a resurgence in studies of the period. This second phase of interest saw a number of searching academic analyses which challenged the orthodox views that had emerged in the immediate aftermath of the conflict, offering a more positive analysis of the Victorian army and its performance in South Africa. Debate between orthodox and revisionist historians continues, but in more recent years studies have tended to focus on previously neglected aspects of the war, such as the combat experience of the Boers and the role of colonial contingents.²⁷ Furthermore, the recent centenary of the Boer War has produced a flood of fresh work on the subject, showing that the topic still holds considerable interest for both historians and the public.²⁸ Additionally, it is important to note that the study of the Boer War has assumed some political aspect in post-apartheid South Africa. Transvaal ceased to exist and the Orange Free State lost its distinctive Dutch 'Orange' in 1994, while other Boer towns have received new post-colonial African names in the last ten years. The desire to preserve Afrikaner identity through remembrance and commemoration of the war has produced substantial writing in South Africa, work that at times sits uneasily with the new political agendas of the 'Rainbow Nation'. In the 21st century the example of this war as a struggle for Afrikaner freedom from the oppressive British government carries connotations that have allowed certain radical white groups in the country to use it as a rallying cry against black rule.

The first, orthodox interpretation of the Boer War emerged while the conflict was still in progress. The struggle produced voluminous literature, with the war proving immensely controversial and prompting numerous authors and journalists to weigh in with their opinions. An explosion of literature emerged both during and after the war, with well over 100 books on various aspects of the conflict being produced in 1903 alone.²⁹ Britain printed two multi-volume histories soon after the conflict, namely the seven-volume *Times History of the War in South Africa* (hereafter *Times History*) principally edited by Leo Amery, and the eight-volume *History of the War in South Africa* (hereafter *Official History*) edited by General Frederick Maurice and others.³⁰ The German General Staff also chose to produce a history of the conflict, devoted almost entirely to the early, conventional stage of the war, with the guerrilla phase meriting just a single paragraph in a two-volume work.³¹ In addition to these official works, numerous other books and articles appeared on the causes of the war, its

²⁷ For example; Pretorius, Fransjohan, *Life on Commando during the Anglo-Boer War, 1899-1902*, (Cape Town, Human & Rosseau, 1999); Miller, Carman, *Painting the Map Red: Canada and the South African War 1899-1902* (Natal, University of Natal Press, 1998)

²⁸ For an overview of centenary publishing, see Bill Nasson, "Waging Total War in South Africa: Some Centenary Writings on the Anglo-Boer War, 1899 – 1902" in *The Journal of Military History*, 66(2) 2002, pp.813-828

²⁹ Stephen Badsey, "Mounted Combat in the Second Boer War" in *Sandhurst Journal of Military Studies* 1(2) (1992) p.11

³⁰ Amery, L.S. (ed.), *The Times History of the War in South Africa*, 7 vols. (London, Sampson Low, Marston and Company 1900-1909)

Maurice, Frederick, (ed.), *History of the War in South Africa* 8 volumes (London, Hurst & Blackett, 1906-1910)

³¹ Walter, W.H.H (translator), *The German Official Account of the War in South Africa* 2 vols. (London, J.Murray, 1904-1906)

course and particularly on the perceived failures of the British Army in its immediate aftermath. It was not until the Russo-Japanese War of 1904-1905 that army and public attention was drawn from the experience of battle on the veldt.

The two key printed sources for study of the military aspects of the Boer War are the *Times History* and the *Official History*. The *Times History* was initially planned to cash in upon the surge in interest in the Boer War amongst the British public and as such was written for popular consumption. However, by the time of the second volume the emphasis had changed to a desire to produce a standard work that was academically rigorous, but it remains a lively and engaging read compared to the more formal *Official History*. For this reason the *Times History* has proved more enduring and popular, but it must be used with certain reservations. Leo Amery was the principal editor of the *Times History* and was an ardent proponent of the need for tactical reform within the British Army. The work savages the pre-war Victorian army as being ineffective in combat against anyone other than the most primitive foes, while commanders who came to grief on the veldt, especially Redvers Buller, Charles Warren and Lord Methuen, are the subject of severe and remorseless criticism. Amery singled out the early parts of Buller's Natal campaign for particular attention, casting the general as little more than a bumbling incompetent representing all that was wrong with pre-war army thinking. Conversely, Lord Roberts, an army reformer who had Amery's support, received considerable praise for his largely successful invasion of the Boer Republics, standing in contrast to the slow progress and repeated defeats of Buller's army in Natal. One of Amery's long-term goals in producing the work was to promote wide-ranging strategic and tactical reform of the British Army. This was best served by championing the abilities of the reformist Lord Roberts, portraying him as a great general and indeed as the saviour of British fortunes in South Africa following Buller's debacle. The influence of Amery's work in shaping views of the Boer War should not be underestimated. The harsh criticisms levelled by Amery toward the British Army and its combat performance essentially set the tone for academic study of the war for decades.

Amery's work may have been less influential had the British *Official History* provided a useful counterpoint. This work was edited by the military and provides a far dryer account of the war than the popular *Times History*. Original editor and forward thinker G.F.R Henderson died with the work at an early stage and it was passed on to Major General Frederick Maurice. Numerous problems emerged during production of the work, including repeated delays imposed by the parsimonious allocations of funds and staff by the Treasury. Originally planned as a searching and unbiased work on the war, official interference and censorship stripped the teeth from the writers.³² For example, in the interests of reconciliation with South Africa, political aspects of the war were to be avoided where

³² Ian F.W. Beckett, "The Historiography of Small Wars: Early Historians and the South African War", in *Small Wars & Insurgencies*, 2(2), 1991, pp.289-290

possible. Furthermore, the work suffers from being produced by men reluctant to criticise their fellow officers or the army as a whole. As such, the account is flat and offers little in the way of judgement or analysis, instead presenting bald facts and typically steering well away from criticism or comment upon the actual conduct of the war. Crippled by censorship and delayed through lack of resources, the work was far from the in-depth analysis of the conflict that had been planned when it was originally commissioned. Lack of comment combined with lifeless prose caused the *Official History* to become neglected in preference to the more readable *Times History*.

Another major history to be written on the Boer War bearing the 'official' title was the two-volume work produced by the German General Staff, translated versions being published in Britain in 1904 and 1906. In contrast to the British works, it is concise and relatively sympathetic with regard to Britain's military performance. However, as previously mentioned it is almost entirely focussed upon the conventional stage of the war, the main narrative concluding with the capture of Bloemfontein with the subsequent events dealt with only in the briefest terms. Regarding the Boer War as little more than an interesting colonial struggle and no real guide for future conflicts, the work argues that there was little that had occurred in the struggle that altered the essence of modern combat.³³ The authors were unimpressed with the idea that smokeless powder and magazine rifles had shifted the balance in favour of defence, noting that British casualties suffered during their defeats in the opening stages of the war were relatively small compared to the level of loss experienced in continental conflicts such as the Franco-Prussian War. Indeed, the work suggests that British reluctance to accept casualties as a necessity in any vigorous attack was more to blame for their defeats than any improvement in defensive firepower. In a similar vein, Lord Roberts's invasion of the Boer Republics is criticised for avoidance of direct combat and over reliance upon outflanking Boer positions. As an example of European impressions of the nature of the fighting in South Africa it retains value, but its abrupt end, virtually ignoring the later phase of the war, means it is less valuable overall than the British produced histories.

In the immediate aftermath, and even sometimes while the war was still in progress, several histories charting the course of the conflict were published to take advantage of widespread public interest in the struggle. Several notable figures, including Arthur Conan Doyle, Alfred Thayer Mahan and Winston Churchill published their own accounts of the war. The quality of these works varies enormously, from picture book histories to more academic studies, although a weakness common to many of them is their date of publication. Public interest and enthusiasm for the war surged in the aftermath of British reverses during "Black Week" in December 1899, reaching a peak with the invasion of the Boer Republics in 1900. Many works were published to take advantage of this interest and were written on the assumption that the fall of the Transvaal and Orange Free State capitals

³³ Ibid, Vol.2, p.380

marked the end of the war. With the Boxer Rebellion in China capturing the public imagination in late 1900, interest in the Boer War waned. Additionally, the subsequent guerrilla phase of the war lacked the grand sweep or glamour of the conventional phase and thus was largely neglected in works intended for popular consumption. Conan Doyle's work *The Great Boer War* stands as perhaps the best of the early narratives of the conflict.³⁴ Conan Doyle had served as a volunteer physician in South Africa for several months in 1900 and used some of the time to gather accounts from the war's participants. His work remains readable and largely accurate, although it must be kept in mind that Conan Doyle was a supporter of the British war effort and his writing reflects this fact. Nevertheless it does tackle some issues of military reform such as the need for heavier artillery and rifles rather than swords for cavalry, although the focus remains on providing a narrative rather than analysis.

As distinct from narrative histories, in the aftermath of the Boer War a profusion of books and articles emerged professing to disseminate the military lessons of the conflict. The quality and academic standard of these works varied widely, but several merit greater study. For example, Leo Amery did not content himself with his work on the *Times History*, and in 1903 published *The Problem of the Army*, based upon an edited and revised collection of articles that had first appeared in *The Times*.³⁵ Amery pushes his agenda of army reform throughout the work, making regular reference to tactical and strategic failures in the recent Boer War. Amery's writing reflects many of the common ideas for reform that emerged in the aftermath of the war, namely the need for improved depot facilities, better marksmanship and, especially, improvements in training to emphasise a greater degree of initiative in individual soldiers. The work is also keen to emphasise that a European war was not expected, and that, with the possible exception of a war against Russia over control of India, future conflicts would be colonial in nature and thus best served by a small, well trained army rather than a mass army on continental lines. Several other volumes discussing the lessons of the conflict were published in the years following the Boer War, often written by army officers rather than civilians. Notable works include the scathing *An Absent Minded War* which lambasted pre-war training and attitudes, and the more moderate *War in Practice*, which praised British adaptability in South Africa and urged that the lessons be incorporated into future tactics.³⁶ Perhaps the most famous of all the tactical treatises that were inspired by the Boer War is *The Defence of Duffer's Drift* by Ernest Swinton. Written in the style of a novel, the work tells the story of an unfortunate British lieutenant called upon to defend 'Duffer's Drift' with his platoon. The officer tries several different approaches to the task, only to suffer repeated defeats at the hands of the Boers. However, in the process, new lessons and tactical points are revealed, ultimately allowing the officer to achieve victory in the final chapter. The work

³⁴ Conan Doyle, Arthur, *The Great Boer War* (London, Smith & Elder, 1901)

³⁵ Amery, Leo, *The Problem of the Army* (London, E. Arnold, 1903)

³⁶ 'A British Officer', *An Absent Minded War*, (London, John Milne, 1900); Baden-Powell, B.F.S., *War in Practice: Some Tactical and Other Lessons of the Campaign in South Africa 1899 – 1902* (London, Isbister & Company, 1903)

remains in print and is still listed as recommended reading in both the British and American militaries.³⁷

Another prolific author immediately before and after the war was Colonel F.N. Maude of the Royal Engineers. A theorist and historian of the Napoleonic Wars, Maude took a keen interest in military developments in the 1890s and held views that were largely traditional in their belief in the power of close assault and strict discipline to maintain formations while under rifle fire.³⁸ His views modified somewhat following the Boer War, but even then he retained the belief that after the initial shock of receiving rifle fire and reacting by seeking cover, the British army proved victorious through a willingness to charge with cold steel. Maude also wrote on the fiercely contested topic of cavalry in the aftermath of the war.³⁹ His views on this arm were largely traditional. While not entirely rejecting the use of dismounted action, Maude emphasised the value of mobility, speed and the opportunities for a decisive charge which a mounted cavalry unit retained. The concept of mounted infantry was rejected as an inefficient half measure. Maude's views are an interesting example of traditionalist thinking during an era of large-scale tactical reform.

In addition to books released for popular consumption, the years after the Boer War saw a vast number of articles in the journals of the armed forces, particularly the Royal United Service Institute Journal and United Service Magazine. Pertinent published works were reviewed and criticised and a considerable interchange of ideas occurred across the pages of these volumes, although as the Boer War faded from memory and the Russo-Japanese War took centre stage, articles dealing specifically with South Africa became rare. Nevertheless the journals of this era are an invaluable source of information regarding mid and low level officer opinion on organisation and tactics. In addition to comment by British officers and observers on the Boer War, several articles by continental authors were translated and published within the journals, giving a European view of the conflict.⁴⁰

As well as books and articles published at the time, a number of prominent officers published memoirs after the First World War which sometimes offer insights into the nature of the pre-1914 army. The weakness with many of these memoirs is that they are naturally concerned with the First

³⁷ Swinton, E., *The Defence of Duffer's Drift: A few experiences in field defence for detached posts which may prove useful in our next war* (London, Clowes, 1940 reprint)

³⁸ Maude, F.N., *Military Letters and Essays* (Kansas, Hudson Kimberley, 1895)

³⁹ Maude, F.N., *Cavalry: Its Past and Future* (London, Clowes, 1903)

⁴⁰ On the Boer War, see for example:

Winston Churchill "Some Impressions of the War in South Africa" in *Journal of the Royal United Service Institution* 45(1), 1901, pp.835 – 804; Captain J. Markham Rose, "Lessons to be Derived from the Expedition to South Africa in Regard to the Best Organisation of the Land Forces of the Empire" in *Journal of the Royal United Service Institution* 45(1), 1901, pp.541 – 593; Major Balck, "The Lessons of the Boer War and the Battle-Working of the Three Arms" in *Journal of the Royal United Service Institution* 48(2), 1904, pp.1271 – 1278; Lieutenant Colonel E. Gunter, (Translator) "A German View of British Tactics in the Boer War" in *Journal of the Royal United Service Institution* 46(1), 1902, pp.801 - 806

World War, with memories and interest in the earlier period fading. The memoirs of several prominent military men such as Ian Hamilton, William Robertson and Horace Smith-Dorrien all suffer to a greater or lesser extent from this, although some useful information on certain aspects of the pre-1914 army can still be gleaned from them.

A more detailed account of the era is given in General Neville Lyttleton's memoir, *Eighty Years of Soldiering, Politics and Games*.⁴¹ Although written after the First World War, Lyttleton had been retired during the conflict and the memoir finishes with the end of his army career before the outbreak of the 1914 conflict. Lyttleton fought with some success under Buller in the Boer War and became the first ever Chief of General Staff during the post-war reforms. Lyttleton's book rambles through a number of topics but includes some interesting observations on training and education in the 1890s and some of the tactical problems encountered in Natal during the war. However with regard to his service as Chief of General Staff the work is disappointing. Interestingly, Lyttleton never refers to his position by its formal title, instead simply passing it off as War Office work, which perhaps reveals some of his distaste for the job or its perceived status within the army at the time. The chapter on his work in this capacity is brief and indeed more time is devoted to the discussion of his cricketing career than his role as the first ever British Chief of General Staff.

After the initial surge of publishing in the immediate aftermath of the Boer War, the topic faded from public interest and received little fresh historical analysis. Historians still periodically returned to explore the subject in the decades that followed, but the influence of Leo Amery remained paramount in these early studies; historians did little to challenge his interpretations and in some cases saw no reason to do so. For example, *Buller's Campaign* by Julian Symons openly acknowledged the influence of Amery, arguing that the analysis of Redvers Buller offered by the *Times History* was essentially correct and in no need of revision.⁴² The work ends with Ladysmith relieved, but devotes the majority of its prose to the defeats at Colenso and Spion Kop, offering little analysis of the victories on the Tulega Heights that ultimately broke the siege.

Indeed, it was not until the 1970s that Amery's interpretation of the war was subject to serious academic challenge. As previously mentioned, interest in the Boer War and the late Victorian army enjoyed resurgence during this period and the considerable number of works produced during this era reflects this change. A critical work of this period is Thomas Pakenham's major revisionist study *The Boer War*.⁴³ Pakenham's work consciously attempted to break free from the influence of Amery's *Times History* and instead offered a reinterpretation of the combat performance of Redvers Buller, arguing that during early defeats Buller was a victim of circumstances beyond his control, concluding

⁴¹ Lyttleton, Neville, *Eighty Years: Soldiering, Politics, Games* (London, Hodder & Stoughton, 1927)

⁴² Symons, Julian, *Buller's Campaign* (London, Cressent Press, 1963)

⁴³ Pakenham, Thomas, *The Boer War* (London, Abacus, 1997 reprint)

that after the initial setbacks, it was Buller's army which developed new, modern tactics that allowed the British to achieve final victory. Conversely, Lord Roberts is criticised for his neglect of logistics, failure to deal the Boers a crushing blow in battle, and mistaken belief the war would end with the capture of the Boer capitals.⁴⁴ Although a bestselling success, Pakenham's work has been criticised by some South African historians for promising much but delivering relatively little, particularly with regard to his assertion to tell the neglected story of the suffering of the black population during the war. Additionally, Pakenham's attempt to rehabilitate Redvers Buller is not always entirely convincing. While some of the criticism levelled at Buller in the aftermath of the war may have been unfair and ignored the difficulty of the situation he found himself in, his feeble performance as a strategist during the Natal campaign and as battlefield commander at Colenso, Spion Kop and Vaal Krantz are hard to excuse. Furthermore, in attempting to improve Buller's reputation, Pakenham is sometimes overly critical of other officers such as Lord Roberts, John French and Ian Hamilton. Yet despite these flaws, Pakenham's work challenged the existing historiography of the Boer War, forcing future historians to go beyond Leo Amery's early interpretation. Subsequent works have continued the efforts to rehabilitate commanders castigated by Amery, including revisionist studies of Buller by Geoffrey Powell and Lord Methuen by Stephen Miller.⁴⁵

Allied to the reinterpretation of British combat performance in South Africa, the army in the Victorian era has also received greater academic study since the 1970s. Brian Bond's *The Victorian Army and the Staff College 1854-1914* was the first of these works and remains one of the most important for exploring the course and nature of staff officer training during the 19th and early 20th centuries.⁴⁶ The work was ground-breaking when first published and remains a key component for understanding attitudes towards training and leadership within the officer class throughout this era. Bond touches on numerous tactical issues and illustrates how a gradual move towards professionalism from the 1890s onwards began to reshape the nature of the British Army. However, the work also argues that this process remained painfully slow and that tradition and obstinacy hampered reform work right up until the First World War. Complementing Bond's work is Edward Spiers's *The Late Victorian Army 1868-1902*, offering an overview of the history of the armed forces in this period.⁴⁷ The work is wide ranging, covering the War Office and civil-military relations as well as the nature of the fighting forces themselves. Spiers argues that the army, although often criticised for being hidebound and retrograde in its thinking, was in fact effective at the roles it was expected to play within the navy dominated Victorian military. Reforms were gradually introduced over the period as the army gained

⁴⁴ Ibid, pp.318-319

⁴⁵ Powell, Geoffrey, *Buller: A Scapegoat? A Life of General Sir Redvers Buller 1839 – 1908* (London, Leo Cooper, 1994)

Miller, Stephen M., *Lord Methuen and the British Army: Failure and Redemption in South Africa* (London, Frank Cass, 1999)

⁴⁶ Bond, Brian, *The Victorian Army and the Staff College 1854-1914* (London, Eyre Methuen, 1972)

⁴⁷ Spiers, Edward, *The Late Victorian Army* (Manchester, Manchester University Press, 1999)

prominence but Spiers acknowledges that they were rather limited in their impact. Concluding the era in question, the Boer War shook the army and illustrated that it still had much to learn, but its ability to expand to eventually win the war demonstrated a certain degree of flexibility.

Building on these ideas, Howard Bailes has suggested that the British Army in the years prior to the Boer War was not the hidebound and antiquated institution that some of the more vociferous critics of its combat performance tried to suggest. He identifies several schools of thoughts within the late Victorian army that were both highly educated and fully aware of continental and technological developments.⁴⁸ More recently he has argued that British tactical thought in the era was moving towards flexibility throughout the 1890s and that early defeats were due to a failure to act in line with accepted British doctrine, although he does acknowledge that these ideas were at an early stage.⁴⁹ Building upon the idea that tactical thought within the British Army prior to the war was more advanced than commonly believed is the work of Tim Moreman on fighting in the North West Frontier region of India.⁵⁰ Decades of combat against local tribes, often well armed, in difficult terrain had taught the British a number of valuable lessons. However, Moreman argues that a failure to disseminate these important ideas outside of a small number of regiments regularly deployed on the frontier meant that other regiments were forced to learn through bitter experience. Although offering interesting arguments the work of both historians in this field seems to suggest that while there were strands of advanced tactical thinking within the army, they had not achieved large scale acceptance by the time of the Boer War. More recently, D.M. Leeson has rejected the positive assessments of the pre-Boer War army, using the example of the 1898 manoeuvres to argue that the army was operationally and tactically backward.⁵¹ While Leeson uses a rather narrow range of sources to argue his case, the work shows that the debate around the quality of the pre-Boer War army is by no means over.

The centenary of the Boer War produced a number of new studies of the conflict, further building upon the revisionist trend that had begun in the 1970s. For the topic of this thesis, perhaps the most important publication is conference papers from the Australian War Memorial Military History Conference under the title *The Boer War: Army, Nation and Empire*.⁵² This collection of stimulating essays mainly focuses on Australian involvement in the Boer War but contains a number of excellent essays on tactical and operational issues within the conflict as well as the political and social impact

⁴⁸ Howard Bailes, "Patterns of Thought in the Late Victorian Army" in *Journal of Strategic Studies* 4(1), 1981, pp.28 - 45

⁴⁹ Howard Bailes, "Technology and Tactics in the British Army, 1866-1900" in Haycock R. And Neilson, K. (ed.) *Men, Machines and War* (Ontario, Wilfried Laurier University Press, 1988)

⁵⁰ Moreman, "Northwest Frontier Warfare", *JICH* 20(1), 1992, pp.35 - 64

⁵¹ D.M. Leeson, "Playing at War: The British Military Manoeuvres of 1898" in *War in History* 15:4 (2008), pp.432 - 461

⁵² Dennis, Peter and Grey, Jeffrey (eds.), *The Boer War: Army, Nation and Empire* (Canberra, Army History Unit 2000)

on Australia. The work includes analysis of cavalry performance in South Africa, as well as more general studies of British combat performance on the veldt that offer far more rounded interpretations than those found in the *Times History*. A second collection produced to mark the centenary of the war is *The Boer War: Direction, Experience and Image* edited by John Gooch.⁵³ Taking a somewhat wider approach than *Army, Nation and Empire* this work breaks down its study into three broad fields; British strategic problems, the experience of war for the various ethnic groups involved within it and the portrayal of the conflict by the British media. Although as a consequence it does not deal with tactics or operational art on a detailed level, it does put forward some interesting arguments in the essays dealing with the strategic direction of the war. Ian Beckett's essay on the 'Politics of Command' is particularly interesting in illustrating the confusion of experience, background and personality that hampered officer relations particularly in the early stages of the Boer War. As a pair of works *Army, Nation and Empire* and *Direction, Experience and Image* complement each other well and provide an illustration of some of the most recent historical thinking on the subject of the Boer War, demonstrating how analysis is now revising the early criticisms levelled by Leo Amery.

However, while the Boer War itself and the Victorian era army have benefitted from greater historical study and revisionism in recent years, the pre-First World War army has received less attention. Study of the pre-1914 army has focussed almost entirely upon the strategic and organisational reforms that had created the General Staff, the B.E.F. and the Territorial Army. The classic account of this reorganisation and reformation is *The Development of the British Army 1899-1914* by Colonel John Dunlop.⁵⁴ The book provides a wide ranging and detailed study of the work of various Defence Secretaries to reform the British Army as the risk of war on the continent loomed, with a natural emphasis on the critical Haldane years when the 1914 army took on its final shape. As an account of the reorganisation of this era the work has yet to be superseded, but it does not delve into the realms of tactics or post-Boer War army doctrine except in the briefest terms, preferring instead to focus upon the reforms at the highest levels of the army structure. Another work produced during the 1930s, *The British Army and the Continent 1904-1914* complements Dunlop's account.⁵⁵ This work again focuses on reorganisation at higher levels although the main thrust of the book is in discussion of British strategy with regard to continental commitments in the years preceding the First World War. While useful in charting the change in British Army thinking away from another colonial war towards fighting against Germany, the work lacks any discussion of alterations in tactics or operational thinking that accompanied the overall change in strategic direction. Although subsequent work on the origins of the First World War has shown the surprising extent to which British planning was based on assumption and reaction to events, these two works remain an important overview of

⁵³ Gooch, John (ed.), *The Boer War: Direction, Image and Experience* (London, Frank Cass, 2000)

⁵⁴ Dunlop, John K., *The Development of the British Army 1899-1914* (London, Methuen, 1938)

⁵⁵ Tyler, J.E., *The British Army and the Continent 1904-1914* (London, E. Arnold, 1938)

events taking place in the higher reaches of the British Army structure and the effect this would have on the army by the time it was committed to war in 1914.

While a number of studies have analysed the impact of organisational changes on the B.E.F., the tactical development of the army in the pre-First World War years has remained comparatively neglected. Edward Spiers offered an early analysis of infantry, cavalry and artillery tactics in the years before the First World War in a series of articles.⁵⁶ Offering a relatively brief overview of the vital tactical reforms in this period, Spiers is generally positive in his analysis of Edwardian infantry and artillery reorganisation, concluding that in particular the infantry had reached a peak in their training that made them the best in Europe. Conversely, the cavalry are singled out for much criticism. Spiers argues that an initial impulse towards tactical reform after the Boer War was lost and that in contrast to infantry and artillery, cavalry was tactically regressing throughout much of the pre-1914 period. Although acknowledging that some improvements were being made from 1912 onwards, Spiers damningly concludes that the British cavalry in 1914 was no more tactically advanced than it had been on the eve of the Boer War in 1899. While providing a useful starting point for study of the question, the articles are relatively short and thus inevitably offer only a general overview of the progress of tactical reform.

Treading similar ground to Edward Spiers is *The Boer War and Military Reforms* by Jay Stone and Erwin A. Schmidl.⁵⁷ Split into two separate parts, the book deals with responses from British and Austro-Hungarian armies to the Boer War. Much of the study of the British Army in this regard deals with military reforms and reorganisation that was undertaken while the war was still in progress and which were introduced as immediate measures to counter Boer tactics. Stone argues the ability of the British to reform in the midst of active operations was crucial in winning the eventual victory over the Boer Republics, but while this convincingly demonstrates the ability of the British Army to learn in-theatre, there is relatively little analysis given to whether these new tactical ideas endured beyond the end of the conflict. Post-war organisational reforms are discussed at some length, but tactical reforms are dealt with only in general terms and there is no real analysis given to the extent which the B.E.F. of 1914 benefitted from the Boer War experience. The second half of the book studies the reports of the Austro-Hungarian military attaché and his attempts to convince his army that the Boer War indicated the need for tactical reform. This work offers a unique study of how the military of a major continental power regarded this far flung colonial war, and the different way in which British and

⁵⁶ Edward Spiers, "The British Cavalry 1902-1914" in *Journal of the Society for Army Historical Research* LVII: (230) 1979, pp.71 - 79

Edward Spiers, "Rearming the Edwardian Artillery" in *Journal of the Society for Army Historical Research* LVII: (231) 1979, pp.167 - 176

Edward Spiers, "Reforming the Infantry of the Line 1900-1914" in *Journal of the Society for Army Historical Research* LIX: (238) 1981, pp.82 - 94

⁵⁷ Stone, Jay & Schmidl, Erwin A., *The Boer War and Military Reforms* (Lanham, University Press of America, 1988)

Austro-Hungarian armies regarded the war provides an interesting contrast. However, the long term influence of the Boer War on both the nations in question is given comparatively little attention.

Of the three combat arms, cavalry has received the most attention from historians across the crucial 1902 - 1914 time frame. The role and future tactics of cavalry were in considerable dispute during this period as evidenced by works such as those of Douglas Haig and Erskine Childers, and more recent historians have examined the debate in considerable detail, examples including the work of Stephen Badsey, Gerard De Groot, Gervase Phillips and Jean Bou.⁵⁸ A historical consensus on the quality of British cavalry in this period has yet to emerge, although even critical writers such as Edward Spiers conclude that in comparison to continental cavalry forces the British were tactically advanced, especially in terms of the ability to fight dismounted. The Marquess of Anglesey, whose multi volume work treats the subject with unmatched detail, has produced the most comprehensive study of British cavalry in this era.⁵⁹ This work traces the complex factors influencing the cavalry during this period and argues that although the cavalry retrenched with determination immediately after the Boer War, as the years advanced even hard liners gradually reformed their views. Nevertheless, the nature of British cavalry tactics in these crucial years continues to divide historical opinion.

As the most technical and least glamorous of the three arms, British artillery in this era has received little attention. The standard work for the arm in this period remains the three volume *History of the Royal Artillery 1860-1914*, originally written in the 1930s.⁶⁰ The first two volumes cover the organisation, tactical and technical development of the artillery while the third details the numerous 'small wars' that the gunners fought in during the period in question. As a technical history the works retain a great deal of value and chart a period in which the artillery was assuming an unprecedented level of importance. A second work that relates to the role of artillery in the British Army in this period and later is Shelford Bidwell and Dominick Graham's *Firepower: The British Army Weapons and Theories of War 1904-1945*.⁶¹ Widely regarded as a classic study of British artillery in World War 1 and World War 2, it also devotes some time to examining the development of the arm in the 1904-1914 period when major tactical and technical redevelopment was taking place. The work

⁵⁸ Stephen Badsey, *Doctrine and Reform in the British Cavalry 1880 – 1918*, (Aldershot, Ashgate, 2008)

Jean Bou, "Modern Cavalry: Mounted Rifles, the Boer War, and the Doctrinal Debates" in *The Boer War: Army, Nation and Empire* (ed. Dennis, Peter & Grey, Jeffrey) (Canberra, 2000)

Gerard De Groot, "Educated Soldier or Cavalry Officer? Contradictions in the pre-1914 Career of Douglas Haig" in *War and Society* 4(2) 1986, pp.51 - 69

Gervase Phillips, "Scapegoat Arm: Twentieth Century Cavalry in Anglophonic Historiography" in *Journal of Military History* 71(1), 2007, pp.37 - 74

⁵⁹ Anglesey, Marquess of, *A History of the British Cavalry 1816 – 1919, Volume IV: 1899 – 1913*, (London, Leo Cooper, 1986)

⁶⁰ Hedlam, John, *History of the Royal Artillery from the Indian Mutiny to the Great War*, 3 Volumes (Uckfield, Naval and Military Press, 2005 reprint)

⁶¹ Bidwell, Shelford & Graham, Dominick, *Firepower: The British Army Weapons and Theories of War 1904-1945* (Barnsley, Pen & Sword 2004 reprint)

argues that on the eve of the First World War the British artillery was caught between the technical capacity to deliver indirect fire and the tactical impulse, following French methods, to scorn such techniques and instead to fight in a traditional, old fashioned direct fire role. In this respect it would seem that the British Army had forgotten some of the apparent lessons of the Boer War, particularly the fate of Colonel Long's guns at the Battle of Colenso. Although there were officers within the Royal Artillery who were in favour of a more technical approach towards artillery fighting, their views were undermined by budget restrictions and the concerns of many traditional thinkers that the only true way to support infantry was with medium range direct fire. Jonathan Bailey, Sanders Marble, Edward Spiers and R.H. Scales have carried out some further work on this subject, but in general this important arm remains comparatively neglected.⁶²

While low level tactics in the British Army have received relatively little analysis, there have been several important works on operational level thinking in the 1902 – 1918 period. Tim Travers has written several pieces on this subject, most notably *The Killing Ground: The British Army, the Western Front and the Emergence of Modern War 1900-1918*.⁶³ Although mainly concerned with combat in the First World War, Travers discusses the continuity of ideas that ran through the Edwardian army and the cult of the offensive that apparently gripped much of the senior leadership. The book is generally critical of Douglas Haig, identifying his pre-war training at the Staff College as creating an erroneous and inflexible idea of strategy that was to cost the British Army at the Somme. Although Travers acknowledges that there were strands of advanced thought within the army, he concludes that in the face of anti-intellectual bias and Victorian attitudes, they were unable to make much impact on operational level thinking. A work that covers similar ground is Martin Samuels's *Command or Control? Command, Training and Tactics in the British and German Armies 1888-1918*.⁶⁴ Despite the title the majority of the work deals with combat in the First World War, and although some interesting points are raised, the work suffers from an overdue emphasis on German tactical and operational brilliance contrasted against bumbling British incompetence, illustrated through the highly selective case studies of the first day of the Battle of the Somme 1916 and the opening of the German spring 1918 offensive. Samuels touches on some of the points raised by Travers's earlier work, particularly regarding concepts of structured battles within the British high

⁶² Bailey, J.B.A, *Field Artillery and Firepower*, (Annapolis, Naval Institute Press, 2004); Marble, Sanders, "'The Infantry cannot do with a gun less': The Place of the Artillery in the B.E.F. 1914-1918" PhD Dissertation, Kings College, London, 2001

Scales, Robert 'Artillery in Small Wars: The Evolution of British Artillery Doctrine 1860 – 1914', PhD Dissertation, Duke University, 1976;

Spiers, "Rearming the Edwardian Artillery" in *JSAHR* LVII: (231) 1979, pp.167 - 176

⁶³ Travers, Tim, *The Killing Ground: The British Army, the Western Front and the Emergence of Modern War 1900-1918* (Barnsley, Pen & Sword, 2003 reprint)

⁶⁴ Samuels, Martin *Command or Control? Command, Training and Tactics in British and German Armies 1888-1918* (London, Frank Cass, 1995)

command, and offers a damning assessment of British operational thought in the Edwardian period and the First World War itself.

A challenge to Travers has been provided by M.A. Ramsay in his work *Command and Cohesion: The Citizen Soldier and Minor Tactics in the British Army, 1870 – 1918*.⁶⁵ Ramsay argues that Travers's interpretation is overly narrow, suggesting that tactics at low levels were realistic and advanced. While acknowledging that the British Army was struggling with growing problems presented by mass warfare and modern firepower, Ramsay suggests that it made steady progress prior to and during the First World War in adapting to these issues. The work is particularly concerned with morale and motivation in a citizen army and provides an interesting counterpoint to the negative assessments of Travers and Samuels. However Ramsay has been criticised for offering a general interpretation of the British Army that lacks the depth of more specialised works.⁶⁶

Despite the wide variety of literature published on the Boer War and the era that followed it, gaps in the historiography still remain and the wide range of interpretation of events reveal that much of the history remains contested. The gaps in the historiography regarding the influence of the Boer War upon the tactical development of the B.E.F. become particularly apparent when studying works focussing on British combat experience in 1914. Standard works on this topic include studies by John Terraine, David Ascoli and Robin Neillands.⁶⁷ These works offer praise for the British Army in the opening weeks of the First World War, particularly its training and professionalism. However, in all cases the links between the skill of the B.E.F. in 1914 and the lessons derived from the Boer War are either ignored or casually asserted.

Thus it can be demonstrated that there are a number of crucial gaps in the understanding of the tactical development of the British Army 1902 – 1914. It is therefore the central aim of this thesis to fill the gap in the historiography of the British Army by analysing the extent to which deductions derived from the Boer War became the cornerstones of tactics and training in the 1902 – 1914 period. In analysing this issue, the thesis will address several key questions. Firstly, what were the key tactical lessons derived from the Boer War; secondly, how were these ideas implemented into tactical and training reforms; and finally to what extent the fate of B.E.F. of 1914 was ultimately shaped by the tactical and operational lessons derived from the Boer War. The focus of this thesis will thus be on the tactical ideas, resulting reform and the attendant changes in training that made improvement possible.

⁶⁵ Ramsay, M.A *Command and Cohesion: The Citizen Soldier and Minor Tactics in the British Army 1870-1918* (Westport, Praeger, 2002)

⁶⁶ Stephen Miller's review of *Command and Cohesion* in *Journal of Military History* 67(1), 2003, pp.257-258

⁶⁷ Terraine, John, *Mons: The Retreat to Victory* (Ware, Wordsworth Editions, 2000); Ascoli, David *The Mons Star* (Edinburgh, Birlinn, 2001); Neillands, Robin, *The Old Contemptibles: The British Expeditionary, 1914*, (London, John Murray, 2004)

In addressing the first question, the thesis will analyse the development of key tactical ideas that emerged during combat in the Boer War itself. As previously discussed, the conflict in South Africa was unusual for a variety of reasons and posed a serious challenge to pre-conceived ideas in the British Army. Facing unanticipated tactical problems such as smokeless powder, heavy artillery and a supremely mobile opponent, the British were forced to adapt in the field, suffering several stinging defeats before finally devising battle winning tactics that brought the conventional stage of the war to a close. British tactics in South Africa varied by commander and by region, with the geography of the country imposing its own limitations. For example, the campaign in Natal revolved around attritional struggles for control of important positions, while the more open terrain of the Orange Free State produced a mobile campaign in which large numbers of cavalry and mounted infantry were key. Faced with diverse experiences, the problem that confronted the British military following the end of hostilities was determining which of these ideas had enduring value and which were theatre specific. The ability of the British Army to adapt in South Africa has been discussed in several works, including those by Stephen Miller, Jay Stone and Thomas Pakenham. However, the lasting influence of the ideas drawn from the Boer War has received comparatively little analysis. This thesis will attempt to fill this gap, arguing that several crucial ideas emerged in each of the three main service as a result of South African experience, providing a foundation for the tactical development of the British Army throughout the 1902-1914 period.

How these ideas were adopted into training and tactics will form the focus of the second research question. The embarrassments of the Boer War provided a great impetus towards military reform, and the experience of the conflict provided an initial direction. In the immediate aftermath of the war, ideas drawn from combat against the Boers were dominant in informing training and tactics, but some officers felt that the unique aspect of the struggle made drawing specific tactical lessons difficult and potentially dangerous. Furthermore, the need for the British Army to remain flexible to fight a wide range of opponents further complicated developments. In this environment, tactical concepts drawn from South Africa were subjected to considerable debate, with some officers lauding their value while others dismissed them as irrelevant. The thesis will analyse how ideas drawn from the Boer War were modified and adapted during the 1902 – 1914 era, demonstrating to what extent they were integrated into training and tactics over time. The relative absence of formal, codified doctrine within the British Army of this period poses problems for identifying how diverse ideas became firm tactical concepts. Previous studies, such as the work of Martin Samuels, have made substantial use of the minutes of General Staff meetings to build a picture of British tactics. However, this only demonstrates thinking at the highest strata of the army, and does not reflect the reality of training at lower levels. Instead, by consulting sources such as Army Council minutes, Inspector General of Forces reports and training memorandums from various commands, particularly Aldershot, this thesis will attempt to determine to what extent the tactical ideas of the Boer War prevailed at brigade level and below.

A key element in answering the second research question is the impact of outside influences on tactical development. While the emphasis of the thesis is on the role of the Boer War in shaping British tactics, there were other influences that emerged during the Edwardian period, particularly the impact of the Russo-Japanese War, and these cannot be ignored. However, the thesis will explore the idea that while the examples of the Manchurian conflict contributed to ongoing debates, they rarely provided entirely fresh ideas. Historians of the Russo-Japanese War have argued that continental European militaries tended to use the example of the war in the Far East to confirm existing lines of thought.⁶⁸ This was largely true of the British Army, which drew upon Manchurian observations to contribute to ongoing debates on the value of ideas developed from the Boer War, but did not use them to create entirely new tactics. Where appropriate, the thesis will discuss the impact of the Russo-Japanese War upon tactical discussion, demonstrating how it could provoke controversy but ultimately tended to confirm existing lines of thought developed from South African experience.

The final issue to be addressed by the thesis is the extent to which the B.E.F. of 1914 had been shaped by the lessons of the Boer War, and how relevant they proved for combat in the opening months of the First World War. The outbreak of war in 1914 placed the small, colonial orientated British Army directly in the path of the German offensive through Belgium. Vastly outnumbered and outgunned, the B.E.F. was forced to fight pitched battles against an enemy regarded as the finest army on the continent. The experience of the Boer War provided few operational lessons, while the need to handle multiple divisions in the field had been neglected in pre-war training in favour of achieving excellence at brigade level and below. The unique nature of the British Army and its focus on small scale deployments meant that it was not ideally suited to a vast continental struggle, and a number of operational flaws became apparent in these early battles, with higher command fragmenting under the pressure of campaigning.⁶⁹ However, despite these problems, the B.E.F. acquitted itself commendably in combat, where its high tactical quality meant that it was able to perform well in battles such as Mons and Le Cateau, checking the German advance before retreating in good order. The tactical performance of the B.E.F. has drawn praise, and this thesis will analyse the extent to which tactics drawn from the Boer War proved useful in 1914, and demonstrate that, although specific ideas were not always appropriate, the fundamental principles developed in the 1902 – 1914 period remained valuable and relevant in the opening months of the First World War.

⁶⁸ Yigal Sheffy, "A Model Not to Follow: The European Armies and the Lessons of the War" in Kowner, Rotem (ed.) *The Impact of the Russo-Japanese War* (London, Routledge, 2007) pp.262-264; Snyder, Jack, *The Ideology of the Offensive: Military Decision Making and the Disasters of 1914* (Ithaca, Cornell University Press, 1984) pp.77-81

⁶⁹ Gardner, Nikolas, *Trial by Fire: Command the British Expeditionary Force in 1914* (Westport, Praeger, 2003) p. 236

The focus of this thesis centres upon the extent to which the combat experiences of the Boer War developed British operational and tactical thought in the 1902 – 1914 period, and the work will use various official and semi-official sources to trace the development of the British Army. Reports from the front and the evidence presented to the post-Boer War *Elgin Commission* identified a number of key tactical problems that had emerged in South Africa. From this point, solutions and responses were widely debated in the service journals, and also in various training papers produced for individual commands such as Aldershot. Ultimately, some of the proposed solutions were accepted, with evidence of their usage in training appearing in the reports of the Inspector General of Forces and in annual training memorandums issued by local commands. Therefore, by using this range of sources, it is possible to triangulate evidence from the era to trace the progression of tactical ideas from their roots in the Boer War to the point of official acceptance. The private papers of various high ranking officers who fought in the Boer War and First World War will only be referred to sparingly. Due to the high rank of many of the officers in question, much of the material within the private paper collections refers to strategic and organisational thought, rather than tactical development, and are thus of less immediate use in addressing the key research questions.

The thesis will be divided into four separate chapters, detailing separate aspects of the British Army. These chapters will comprise Doctrine and Ethos, Infantry, Artillery and Cavalry. Although the British aspired towards close co-operation in battle, individual arms tended to absorb and assess the tactical lessons of the Boer War in isolation. Therefore, an arm by arm structure facilitates closer analysis of the key tactical questions which drove reform in the 1902 – 1914. The Doctrine and Ethos chapter will discuss the difficulties of creating formal doctrine in an army which needed to remain sufficiently flexible to undertake imperial policing duties, and analyse the ethos of flexibility and initiative that served as a substitute for formal written guidelines. Taken as a whole, the four chapters will argue that while not all the lessons of the Boer War endured, key ideas in each service arm remained in place, encouraged by an overall ethos that emphasised skill in minor tactics. While the British Army of 1914 possessed certain flaws, the reforms that were developed from the Boer War created an army that performed well in the confused battles that marked the opening weeks of the First World War.

Throughout the thesis, the focus will be upon tactics and training, principally at brigade level and below. Therefore, the wider organisational changes underway in this period, such as the Haldane reforms, the creation of the Territorial Army and the implementation of the General Staff will be referred to only in passing. As the focus is on low level tactics, large scale strategic issues such as plans to deploy the B.E.F. to the continent will not be discussed. Additionally, while British auxiliary forces such as the volunteers, militia, yeomanry and colonial contingents played a vital role in the Boer War, the focus of this thesis remains upon the development of the regular B.E.F. and as such the

experiences of second line forces will not be specifically detailed. The regular army was the driving force in developing training and tactics, and the second line forces tended to follow its lead rather than contribute fresh ideas. As such the influence of the auxiliary forces in the ongoing tactical debates of the 1902 – 1914 period was negligible.

Chapter One Doctrine and Ethos

Throughout the Victorian era, the British Army was distinctly averse to committing itself to any formal, written doctrine. Proposals to create a General Staff similar to those that existed in France and Germany had been rejected by the Hartington Commission in the 1890s, preventing the development of a higher organisation within the army that could have imposed a common doctrine from the top down.¹ Instead, a profusion of tactical ideas existed, meaning that tactics and training often varied considerably from battalion to battalion and new ideas and methods were localised. Tactics were influenced by a multitude of factors, including local combat experience in colonial actions, the quality of the commanding officers and the availability of suitable ground upon which to train. Drill manuals contained some useful ideas, but the lack of an overall doctrine in training meant that adherence to faulty, outdated concepts often continued unchecked. Training was principally focussed on simple drill, with financial stringency and restrictions on manoeuvres meaning that training at brigade level and above was a rare occurrence. Indeed, of the formations despatched to South Africa, only the battalions of Hildyard's 2nd Brigade had been formed together and had the chance to train as a unit in peace time.²

The early defeats in the opening months of the Boer War revealed the flaws in some of the pre-war ideas, especially when confronted by the challenge of crossing a fire swept zone in the face of a virtually invisible enemy. In this new form of warfare, the close control and tight formations that had been victorious in conflicts against primitively armed colonial foes proved to be sources of weakness. Furthermore, cherished concepts such as strict discipline and unthinking obedience to orders were of limited value in a conflict where officers and men were often widely separated, and forced to rely upon their own initiative to an unprecedented degree. Additionally, the stress of modern combat, particularly the disturbing experience of being under rapid fire from invisible foes, placed great demands upon the morale of the troops. The number of British regulars who surrendered in combat revealed that even hard drilled and well disciplined long-service soldiers were not immune to cracking under the pressures imposed by modern firepower.

Ultimately, the flexibility of the British Army and its ability to learn 'in-theatre' made it successful in adapting to the peculiar conditions of the Boer War, but in the aftermath of the conflict the British grappled with a wide variety of new ideas, often leading to acrimonious debates within the individual

¹ The National Archives (hereafter TNA) CAB 41/41/11 *Preliminary and Further Reports (with Appendices) of the Royal Commissioners appointed to Enquire into the Civil and Professional Administration of the Naval and Military Departments and the Relation of the those Departments to each other and to the Treasury* p. xxii-xxiii

² *Report of His Majesty's Commissioners Appointed to Inquire into the Military Preparations and Other Matters Connected with the War in South Africa*, (London, H.M.S.O 1903) Vol.2, Q15973, p.240 (Hereafter referred to as the *Elgin Commission*)

combat arms. Arching above this was the acknowledgement that modern firepower required an overhaul of training attitudes, particularly regarding improving the quality of the individual soldier and the overall initiative of the army. While rigid control and close formations could be of value in 'savage' warfare, against foes with modern weapons it was necessary for the army to develop a new training ethos that was based upon skill and initiative as much as drill and obedience. These ideas contributed to the ongoing debate, common to all European armies of the era, regarding potential solutions to the problem of crossing the fire swept zone and delivering an assault. The doctrinal responses to this issue in the pre-First World War period have been a popular subject for historians. Whereas the German Army has drawn considerable praise for its operational doctrine, the British Army has often been castigated for advancing little from its Victorian ethos, ultimately leading to defeats and heavy casualties in the battles of the First World War.³ The Boer War has sometimes been seen as a negative influence in this regard, trapping the army in a 'small war' mentality that proved inappropriate when faced by the vast scale of 1914.⁴ However, more recently it has been suggested that while the British struggled to create a workable operational doctrine, at brigade level and below the B.E.F. was tactically advanced in understanding the problems posed by modern fire.⁵ Furthermore, the opening clashes between the British and the Germans in 1914 have been characterised as 'soldiers' battles', in which the influence of higher command was limited or even non-existent.⁶ Given the relative success of the B.E.F. in holding off far larger numbers of the enemy, this lends support to the idea that the British Army emerged as a tactically skilful force in the aftermath of the Boer War, although weaknesses undoubtedly existed at an operational level. Additionally, the unique imperial role of the British Army meant that copying German or French operational methods would have been inappropriate for the type of campaigns that the army was likely to fight, limiting the flexibility and adaptability that was a requirement in colonial campaigns.

It is the purpose of this chapter to add to the ongoing debate on the nature of British Army doctrine in the pre-First World War period by demonstrating how the experience of the Boer War contributed to a new ethos based around skill, intelligence and initiative, thus contributing to overall tactical effectiveness. However, the slow and hesitant process of instituting a General Staff and the unique demands of policing the empire meant that creating a formal, written doctrine proved largely impossible. This created peculiar training difficulties for the British Army in the Edwardian period and limited the development of an operational doctrine that could match that of the Germans. The analysis of the British Army in this period will centre on three aspects: first, the change in training

³ For example: Samuels, Martin, *Command or Control? Command, Training and Tactics in British and German Armies 1888-1918* (London, Frank Cass, 1995); Travers, Tim, *The Killing Ground: The British Army, the Western Front and the Emergence of Modern War 1900-1918* (Barnsley, Pen & Sword, 2003),

⁴ Searle, G.R., *The Quest for National Efficiency: A Study in British Politics and Political Thoughts 1899-1914* (Oxford, Basil Blackwell, 1971) p.50

⁵ Ramsay, M.A, *Command and Cohesion: The Citizen Soldier and Minor Tactics in the British Army 1870-1918* (Westport, Praeger, 2002) p.109

⁶ Bourne, J.M., *Britain and the Great War, 1914-1918* (London, Arnold, 1989), p.28

ethos to encourage high levels of initiative; second, the difficulties that prevented the development of a formal doctrine; and finally the willpower versus firepower debate that encouraged a belief in the offensive, arguably to excessive levels. Although flaws remained, this chapter will argue that the emphasis on skill and initiative that developed from the South African conflict was an appropriate tactical response to the challenges posed by modern weapons. The focus on individual skill developed principally as a response to the difficulties of maintaining command and control in widely dispersed infantry formations, but this developed further in the 1902 – 1914 period, ultimately forming a cornerstone of training for the entire British Army. Indeed, the combination of individual skill and thorough training allowed the B.E.F. to perform well in battle against the Germans in 1914. However, the failure to develop a formal doctrine meant that once the old regular army was destroyed much knowledge was lost, forcing the ‘New Armies’ to endure a steep learning curve on the Western Front.

Initiative

The idea of improving the initiative and skill of the individual British soldier was not a new concept on the eve of the Boer War. Indeed, as early as 1803, Sir John Moore had introduced innovative skirmish training that led to the creation the regular army’s first permanently constituted light infantry regiments. However, while certain elite formations benefitted from such enlightened ideas, the majority of the army continued to train on lines of discipline, obedience and close control throughout the Victorian era. While these concepts served the British Army well in wars against poorly armed foes such as the Zulus and the Dervishes, by the 1890s there was a growing concern that these rigid tactics were potentially vulnerable against rifle equipped opposition such as the tribes of the North West Frontier.⁷ The 1896 edition of *Infantry Drill* picked up on this point, stating “The conditions of modern warfare render it imperative that all ranks should be taught to think, and, subject to general instructions and accepted principles, to act for themselves.”⁸ However, this single sentence apparently had limited influence on training in the British Army prior to the Boer War. For example, William Gatacre was highly critical of the lack of intelligence shown by the ordinary soldier during the Tirah campaign of 1898, while other officers were scathing about the stultifying and outdated drill that made up the majority of recruit training in the late 1890s.⁹ Furthermore, the benefits of improved initiative were considered doubtful by some officers. Even the forward thinking G.F.R Henderson had concerns about the concept, attributing Prussian setbacks in 1870 to “...the impetuosity of all

⁷ Major General Sir W.F. Gatacre, “A Few Notes on the Characteristics of Hill-Fighting in India” in *Journal of the Royal United Services Institute* 43(2), 1899, p.1066.

⁸ Quoted in Henderson, G.F.R, (edited by N. Malcolm) *The Science of War: A Collection of Essays and Lectures 1982-1903* (London, Longmans, Green & Co., 1905) pp.348 – 349

⁹ For North West frontier experiences, see Gatacre, “Hill Fighting in India” in *JRUSI*, 43(2), 1899, p.1076; for the weakness of pre-Boer War training, see Meinertzhagen, R., *Army Diary 1899-1926* (Edinburgh, Oliver & Boyd, 1960), pp. 15-16 and Major A.W.A Pollock, “The Battle Drill of Infantry”, in *Journal of the Royal United Services Institute* 42(1), 1898, pp.540, 547

ranks and the excessive independence of the subordinate leaders” and feeling that too much initiative would cause basic drill book principles to be “cast to the winds”.¹⁰

However, the war in South Africa provided stark evidence of the need to improve the intelligence and initiative of the individual soldier. As will be discussed in greater detail in subsequent chapters, the range and effectiveness of Boer firepower caused the abandonment of close order formations in favour of widely extended lines, making it harder for officers to keep their men ‘in hand’ and under control. Furthermore, the accuracy of modern rifles and the lack of smoke on the battlefield meant officers who shunned cover and tried to set an example for their troops became prime targets for Boer marksmen. Lord Methuen noted that at Modder River “...the truth is that when no-one can get on a horse with any safety within 2,000 yards of the enemy, orders cannot be conveyed...”, and officer attrition soon became so severe that badges of rank and swords were abandoned to avoid drawing undue fire.¹¹ In these circumstances, handling larger formations became extremely difficult. Passing orders to front line officers who were virtually indistinguishable from their men was a challenge for messengers, especially as they were forced to advance “from boulder to boulder” on their way to the front to avoid Boer snipers.¹² Even in the firing line itself, wide extensions made the conveyance of vocal commands difficult, with men at the fringes of the formation often unable to identify their commanding officer due to his plain uniform, or hear his shouts over the sounds of combat. Whistle calls and identification badges worn on the collar or back of the uniform were suggested to remedy these issues, but these were improvised solutions that were far from ideal.¹³ These command problems were so acute that one veteran officer considered that handling a single battalion under Boer War conditions was harder than handling an entire brigade in earlier years.¹⁴

This loss of control created a series of related problems that cascaded down the command structure of the British Army in South Africa, revealing the weakness of pre-war instruction. Deprived of orders from higher ranks, junior officers such as captains and subalterns suddenly found themselves facing far more responsibility than had been anticipated in peace time training.¹⁵ Inexperienced officers often struggled to cope with these unexpected demands, and Major-General A.H. Paget felt that in the case of many junior commanders “...it was perfectly obvious that they dreaded responsibility.”¹⁶ Inevitably, these officers typically looked to their NCOs for support in such circumstances, in some cases to excessive levels. Colonel Forbes MacBean noted that inexperienced officers “...would almost

¹⁰ Henderson, *Science of War*, pp.138-139

¹¹ TNA WO 108/237 Lord Methuen’s Despatch on the Battle of Modder River, 1st December 1899; Pakenham, Thomas, *The Boer War* (London, Abacus, 1992) p.312; Symons, Julian *Buller’s Campaign* (London, Crescent Press, 1963) p.222

¹² TNA WO 108/237 Lord Methuen’s Despatch on the Battle of Belmont, 30th December 1899

¹³ TNA WO 105/40 – Notes for Guidance in South African Warfare, 5th February 1900

¹⁴ *Elgin Commission*, Vol.1, Q10447, p.441

¹⁵ *Elgin Commission*, Vol.2, Q13247, p.66

¹⁶ *Ibid*, Q16481, p.260

rather take an old colour sergeant's opinion than develop one of their own."¹⁷ Unfortunately, NCOs lacked any real schooling in command duties, and although the rate of attrition often forced them to take the place of officer casualties in combat, this was not a job for which they had been prepared in peace time training.¹⁸ The difficulties of command and control experienced by junior officers and NCOs filtered down to the men themselves, who had often been trained to look towards their officers for all instructions and therefore were not expected to act upon their own initiative.¹⁹ While the dependence of men on officers could vary from battalion to battalion, at its worst it risked leaving the soldiers utterly paralysed in the absence of direct orders.²⁰ One anonymous officer described NCOs and men as being "like a flock of sheep" when deprived of their officers, feeling that defeats and lost opportunities throughout the conflict could often be traced to this key problem.²¹ This was especially noticeable in combat firing, as pre-war musketry training had largely been based on the assumption that in action it would always be possible for an officer to point out the target and announce the range.²² When battlefield confusion or officer casualties meant that such orders were not forthcoming, the shooting of the men could sometimes prove exceptionally poor.²³

Such issues were not necessarily universal throughout the army during the Boer War, with certain formations benefitting from strong leadership and training which reduced confusion. For example, when the 1st Battalion Sherwood Foresters arrived in South Africa in December 1899, it was put through rapid and rigorous training to prepare it for "the class of warfare" it was expected to face, reducing battlefield confusion when it went into action.²⁴ Nevertheless, the problems of command and control in the Boer War were widespread and attracted a great deal of attention within the army. A critical issue for many junior officers in the war was a system of peace time training that had left them with little work to do and granted limited opportunities to exercise command. The eight company battalion system, the need to provide drafts for India, and related manpower shortages meant that officers rarely possessed a command worth the name. This caused them to interfere in the work of subordinates, enforcing conformity at the expense of responsibility. A.W.A Pollock summed this attitude up as "Zeal amongst us is displayed chiefly in worrying those below us in rank, and scheming to avoid being ourselves worried by those above us."²⁵ This culture of interference bore bitter fruit in the Boer War. Schooled in a system where a superior officer was always close at hand to criticise

¹⁷ Ibid, Q19688, p.418

¹⁸ Ibid, Q19189, p.396

¹⁹ *Elgin Commission*, Vol.1, Q173, p.7; Vol.2, Q17620, p.321

²⁰ Amery, L.S. (ed.), *The Times History of the War in South Africa* (London, Sampson Low Marston and Company 1900-1909) Vol.2, pp.34-35 (hereafter *Times History*)

²¹ 'Beedos', "Military Training", in *United Service Magazine*, October 1904, p.78

²² Lieutenant F.S. Garwood, "Realistic Targets", in *Journal of the Royal United Services Institute*, 46(2), 1902, p.935

²³ Quoted in Major Balck, "Lessons of the Boer War and the Battle Workings of the Three Arms" in *Journal of the Royal United Services Institute*, 48(2), 1904, p.1276

²⁴ Smith-Dorrien, Horace, *Memories of Forty Eight Years' Service*, (London, John Murray, 1925), p.141

²⁵ Lieutenant Colonel A.W.A Pollock, "The Tactical Inefficiency of the Regular Army: Its Causes and Remedy", in *Fortnightly Review* 75, 1904, p.832

mistakes, junior officers were often left crippled by the fear that any fault might earn them a reprimand or even lead to them being “Stellenbosched”.²⁶ Howard Vincent bemoaned that peace time training attitudes were carried over into the war itself, with errors made in action being “mercilessly” seized on by “officer desk critics”, causing some leaders in the field to prefer passive inaction rather than risking punishment for failure in combat.²⁷ Horace Smith-Dorrien gave voice to similar sentiments in a diary entry for 5th March 1901, writing, “I wish this war would end, as so far I have not been found out in any glorious mistakes, and should like to “stand” as one says at cards when one has a fair hand and doesn’t care to risk taking more for fear of losing everything.”²⁸

In the aftermath of the conflict, evidence presented before the Elgin Commission was virtually unanimous in calling for officers and men to be trained to accept greater responsibility and demonstrate more individual initiative.²⁹ In addition to offsetting command paralysis in the absence of orders, it was felt that cultivating intelligence and initiative would prove crucial in allowing troops to attack across fire swept areas. In the face of modern rifle fire, density of formation and sheer weight of assault could no longer be relied upon to succeed without the risk of prohibitive casualties. Avoiding such severe losses was particularly important for Britain, which relied upon a small volunteer army that could not absorb casualties as easily as the mass forces of the continent. However, this in turn raised the issue of how to maintain morale during an assault. Dense formations and close officer control had traditionally been the solution to keeping morale high and preventing routs, with the troops drawing confidence from the presence of comrades and fearing the shame of being seen to panic. Conversely, extended formations, invisible foes and potential isolation from officers placed far greater strain on the men than ever before.³⁰ Faced with these related issues, officers such as Ian Hamilton felt that the solution lay in the development of a small but elite army, based around highly trained soldiers who could be relied upon to press forward individually or in groups, laying covering fire for comrades and seizing advantages presented by local cover.³¹ Instead of dense formations bolstering morale, superior training would give the men confidence in their own weapons and abilities. Officers such as Lieutenant General William Gatacre agreed, and believed such a spirit had been developing by the latter stages of the Boer War. Gatacre argued that successful attacks now depended less on the actions of nearby officers, and more “...on the initiative of the best

²⁶ Stellenbosch was a South African town used as a remount station. Officers who had performed poorly in action were often sent back there from the front.

²⁷ Colonel Sir C.E. Howard Vincent, “The Situation in South Africa: Further Personal Observations and Impressions”, in *Journal of the Royal United Services Institute*, 46(1), 1902, p.15

²⁸ Smith-Dorrien, Horace *Memories of Forty-Eight Years’ Service* (London, John Murray 1925) p.286

²⁹ For example: *Elgin Commission*, Vol.1, Q173, p.7; Q174, p.8; Q10320, p.436; Q10442, p.440; Vol.2, Q13145, p.63; Q14193, p.121; Q19299, p.402.

³⁰ Colonel J.H.A MacDonal, “Infantry in a New Century”, in *Journal of the Royal United Services Institute*, 45(1), 1901, p.243

³¹ *Elgin Commission*, Vol.2, Q13941, pp.107-108

non-commission officers and men who become local leaders.”³² G.F.R Henderson seized upon the idea of NCOs being at the heart of attack tactics, with sergeants handling small squads of men in the absence of local officers, a forward thinking concept which has been described as “superb” by one modern historian.³³ Colonel J.H.A MacDonald also endorsed the idea, noticing that intermingling of units during combat further limited the influence of officers, and instead suggesting the training of infantry companies should emphasis the formation of small groups under leaders specially drawn from the best NCOs and men.³⁴ Indeed, the role of NCOs had been paramount in both infantry and cavalry in the latter stages of the Boer War, with officer shortages meaning that it was estimated around 70% of cavalry squadrons were led by NCOs.³⁵

In the aftermath of the Boer War the British Army was seized by a spirit of reform that promised improvements to the key command difficulties experienced in combat. Extended battlefronts meant that the company was now considered the largest formation that could be controlled by a single officer, and although manpower problems still remained, there was a conscious effort to give captains and subalterns more responsibilities and encourage them to exercise their leadership skills in peacetime.³⁶ While the 1896 *Drill Book* had first suggested the need for greater intelligence amongst all ranks, *Combined Training* 1905 placed new emphasis upon the issue, including how it was to be achieved:

...success in war cannot be expected unless all ranks have been trained in peace to use their wits. Generals and commanding officers are, therefore, not only to encourage their subordinates in so doing by affording them constant opportunities of acting on their own responsibility but, they will also check all practices which interfere with the free exercise of their judgement, and will break down, by every means in their power, the paralyzing habit of an unreasoning and mechanical adherence to the letter of orders and to routine, when acting under service conditions.³⁷

Officers of both infantry companies and cavalry squadrons were given more tactical responsibilities and were expected to take a personal interest in improving training of their own formations.³⁸ For example, for most of the 19th century the training of subalterns had been a role traditionally managed by the battalion colonel, but to foster closer company level co-operation this was now incorporated

³² Ibid, Q16772, p.272

³³ Henderson, *Science of War*, p.348; Ramsay, *Command and Cohesion*, p.46

³⁴ MacDonald, “Infantry in a New Century”, in *JRUSI*, 45(1), 1901, p.251

³⁵ TNA WO 163/10 Inspector General of Forces Report for 1904, p.336 (Hereafter IGF Report)

³⁶ Lieutenant General Ian Hamilton, “The Training of Troops During 1906”, in *Journal of the Royal United Services Institute*, 50(2), 1906, p.1522 ; Stone, Jay & Schmidl, Erwin, *The Boer War and Military Reforms*, (Lanham, University Press of America, 1988), p.117

³⁷ War Office, *Combined Training 1905* (London, H.M.S.O 1905) p.4

³⁸ TNA WO 27/504 Memorandum on Military Training 1905, 31st January 1905; TNA WO 163/10 IGF Report for 1904, pp.301, 321-322;

into a captain's duties.³⁹ The increased role of junior officers and emphasis on initiative also encouraged a practical attitude towards training. Whereas, prior to the Boer War, it had been noted that the British regimental officer was "...expected to make himself acquainted with the most absurdly unimportant details...there was but little necessity for him to be a soldier", in 1905 John French summed up the new attitude when he stated that junior officer training should make a clear distinction between "...the 'cram' which aims at success in examination, and the inculcation of instinctive knowledge which aims at success in the field."⁴⁰ After an inspection of Field Artillery on Salisbury Plain, the camp commandant echoed similar sentiments, ruminating that "Nothing in my experience is more conducive to failure than a contentment with being word perfect in the Drill Book."⁴¹ Although this change in ethos took time to produce results, there was much praise for the eagerness to learn amongst junior officers. Keeness and a growing sense of professionalism were noted as becoming apparent amongst officers in the years following the Boer War, leading to improved instruction for the men and greater initiative at all levels.⁴² While the process was not without its flaws, there was a steady process of improvement. By the middle years of the Edwardian period there were discernable improvements in overall leadership quality, described as a "great step" by the Inspector General of Forces in 1907.⁴³

Matching the reform of the role of junior officers, in the years following the Boer War there was a concerted effort to improve the quality of NCOs and men. Leo Amery summed up the intention of the reforms in 1903, noting that "The passive, automatic discipline of the ear must give place to the active, conscious discipline of the mind and of the will."⁴⁴ Company officers were expected to become instructors rather than simple drill masters, encouraging the troops to show initiative and skill rather than mechanical obedience.⁴⁵ For example, musketry training placed new emphasis on individual accuracy and ability to estimate ranges, moving away from volleys and iron fire discipline that had been common prior to the Boer War. Innovative training exercises were introduced that meant that men were given the chance to demonstrate their initiative in situations approximating service conditions, and although some flaws remained in these manoeuvres, particularly their small scale, they represented a considerable advance in overall training ethos. The quality of the regular British soldier steadily improved over the period, and by 1912, the Inspector General of Forces was pleased to report that he considered that for "individual efficiency" the British infantryman was the

³⁹ Stone & Schmidl, *The Boer War*, p.117

⁴⁰ Captain C. Ross, "Departments in War", in *Journal of the Royal United Services Institute*, 47(2), 1903, pp.983-984; TNA WO 27/503 Memorandum on the Training of 1st Army Corps, 1905

⁴¹ TNA WO 27/504 Remarks on the Report of the Commandant, Practice Camp, Salisbury Plain, 26th October 1905

⁴² For steady progression in training, see: TNA WO 163/10 IGF Report for 1904, pp.321-322; TNA WO 163/11 IGF Report for 1905, pp.155, 162, 199, 210; TNA WO 163/12 IGF Report for 1906, p.36; TNA WO 163/13 IGF Report for 1907, p.5

⁴³ TNA WO IGF Report for 1907, p.19

⁴⁴ Amery, Leo, *The Problem of the Army*, (London, Edward Arnold 1903) p.182

⁴⁵ TNA WO 163/10 IGF Report for 1904, pp.321-322

best in the world, attracting admiration from foreign observers.⁴⁶ In the same year, Lieutenant Colonel Campbell warned his fellow officers not to underestimate the ability of the average private, who he felt was now capable of winning a fire fight even in the absence of direct orders, marking a clear improvement from the problems of the Boer War.⁴⁷ NCOs were also singled out for development. As previously discussed, several prominent officers saw NCOs as being a key element in future tactics, and the idea of a “staff college for non-commissioned officers” had been suggested to the Elgin Commission.⁴⁸ Acting on this proposal, a NCO school based in Salisbury Command was founded in 1904, with a mixed syllabus that encouraged greater command and combat responsibilities for sergeants.⁴⁹

The reform of individual training was an essential component in creating the famously elite infantry of the B.E.F., but the process was not without difficulties or tensions. Whereas the encouragement of greater standards of skill amidst junior officers was largely a question of training reform, to improve the NCOs and men was a more complex matter that touched upon the raw nerve of social prejudice. There was a widespread fear of social degeneration created by urbanisation during the Edwardian period, a concern that was worsened by the fact the British Army did much of its recruiting from the lowest strata of society, often drawing upon poorly fed and ill-educated men. During the Boer War, physical standards had been lowered to help recruitment, with the result that the British Army in South Africa was the smallest in physical terms that the country deployed during the 19th and 20th centuries.⁵⁰ Boers were amazed by the difference in height between officers and men, and were distinctly unimpressed by the physical standard of some of the British soldiers, one burgher considering that “They had neither the accent nor the gait of Christians.”⁵¹ Later drafts of recruits and volunteers to South Africa often proved to be both physically and tactically poor, notably the second contingent of Imperial Yeomanry, raising further prejudices about the capability of urbanised British citizens to make useful soldiers.⁵²

The contradictory factors of lingering mistrust of the social class from which much of the army was drawn and a desire to encourage skill and initiative amongst the men caused the British Army to undergo what M.A Ramsay terms “a paradigmatic crisis” as it searched for tactical solutions to the problems of modern warfare.⁵³ Even during the Boer War, there had been concerns that the degree of

⁴⁶ TNA WO 163/19 IGF Report for 1912, p.566

⁴⁷ Lieutenant Colonel J. Campbell, “Infantry in Battle”, in *Journal of the Royal United Services Institute*, 56(1), 1912, p.353

⁴⁸ *Elgin Commission*, Vol.2, ‘Précis of Evidence by Lieut.-General Sir A. Hunter’, p.615,

⁴⁹ TNA WO 163/12, IGF Report for 1906, pp.73-74; Stone & Schmidl, *The Boer War*, p.117

⁵⁰ In 1901, the minimum height requirement had been dropped from 5 feet 3 inch to 5 feet. Judd, Denis & Surridge, Keith, *The Boer War*, (New York, Palgrave Macmillan, 2002), p.60

⁵¹ Quoted in *ibid*, p.60

⁵² Miller, Stephen, *Volunteers on the Veld: Britain’s Citizen-soldiers and the South African War 1899-1902*, (Norman, University of Oklahoma Press, 2007). pp.154-155.

⁵³ Ramsay, *Command and Cohesion*, pp.6, 56

individuality allowed to men had become excessive. For example, J.M Grierson worried that officers and men had become too casual in tolerating non-regulation clothing in the field, while one anonymous officer felt that traditional ideas of drill, steadiness and discipline had ultimately been the key in overcoming the skilful but ill-disciplined Boers.⁵⁴ In the aftermath of the conflict, some officers, such as Ian Hamilton, actually saw the army as an instrument of social regeneration, taking the lowest members of society and turning them into healthy, intelligent and patriotic soldiers.⁵⁵ However, others had little faith in the working class, and considered the new spirit of initiative to be positively dangerous. An anonymous officer complained in 1903; “The soldier has no more right to perpetual individuality than the operative, the mechanic or the domestic servant. What factory manager, engineer or housekeeper would allow independence of action to either of these classes?”⁵⁶

This mistrust of the lower classes placed limitations on some of the reforms, particularly with regard to the role of NCOs. For example, the training given at the NCO School at Salisbury Plain was heralded as a great success, but by 1906 the school had been abolished, even though the Army Council admitted it had carried out “good and useful work” and the Inspector General considered it “excellent”.⁵⁷ Lack of funding was cited as the principal reason for its closure, but the Army Council made further justifications including that the syllabus could be taught within regiments and that the attendance of NCOs at the school placed a burden upon the companies from which they were drawn.⁵⁸ However, M.A. Ramsay has suggested that the desire to maintain command in the hands of the officer class and avoid any dilution of power to NCOs of a lower social status was the fundamental reason that the tactical development of non-commissioned officers became marginalised in the pre-First World War period.⁵⁹ Promotion from the ranks actually declined during the Edwardian era, and the role of NCOs was not developed to the same extent that was apparent amongst junior officers and men.⁶⁰ Social status remained an important aspect to command, with one prize winning essay published in 1914 arguing, “The ‘habit to command’ is largely hereditary”, while another officer felt that it would be impossible to expect NCOs to be capable of same intellectual standards expected from officers unless they were drawn from the same social class.⁶¹

Edwardian society was greatly defined by the class structure, and it was highly unlikely that a conservative, hierarchical institution such as the army would adopt egalitarian methods in peacetime.

⁵⁴ TNA WO 108/184 Notes by Colonel J.M. Grierson R.A on Return from South Africa; ‘An Old Soldier’, “Retrospect of a Successful Campaign” in *United Service Magazine*, April 1904, p.79

⁵⁵ General Sir Ian Hamilton, “Remarks by General Sir Ian Hamilton, Commander in Chief Southern Command, on the Training of Troops during 1907”, in *Journal of the Royal United Services Institution*, 52(1), 1908 p.93

⁵⁶ ‘Red Coat’, “Concerning Individuality”, in *United Service Magazine*, October 1903, p.66

⁵⁷ TNA WO 163/12 Army Council Comments on IGF Report for 1906, pp.73-74

⁵⁸ *Ibid*, pp.73-74

⁵⁹ Ramsay, *Command and Cohesion*, pp.56, 64

⁶⁰ *Ibid*, p.64

⁶¹ Lieutenant R.H. Bedan, “How Can Moral Qualities Best be Developed during the Preparation of the Officer and the Man for the Duties Each Will Carry Out in War?” in *Journal of the Royal United Services Institute*, 59(2), 1914, p.132

However, while modern historians have sometimes attributed military failures in 1914 to the existence of an anachronistic and elitist officer class, this is an overly narrow interpretation that ignores the considerable improvement in British Army tactics prior to the First World War.⁶² Although social prejudice created certain tensions and limited the development of the tactical role of NCOs, it did not stop overall improvements taking place in training for all ranks during the 1902 – 1914 period. The shock of the Boer War caused a fundamental shift in attitudes towards training. The tactical improvements that will be discussed in later chapters were ultimately dependent upon the new training ethos that emerged in the aftermath of the South African conflict. Junior officers of all arms took a keener interest in the profession and were expected to show greater initiative and skill, while the men benefited from more advanced training that made them the best marksmen in Europe and a genuinely elite force. A testament to the quality of overall training lies in the fact that the B.E.F. was made up of around 60% reservists in August 1914, some of whom had not served with the colours for several years.⁶³ Yet despite these apparent limitations, the force was considered extremely well trained compared to its continental rivals.⁶⁴

The Absence of Formal Doctrine

While there was a significant development in individual officer and soldier quality from 1899 to 1914, some major issues remained unresolved. Perhaps the most serious of these was the thorny issue of devising and implementing a formal operational doctrine. The Boer War had broken down a number of barriers that had prevented the creation of a doctrine in the Victorian era. For much of the 19th century the army had fought ‘small wars’ around the globe, with lessons learned in action having little impact outside of the immediate participants. The potential problems created by this absence of doctrine were highlighted by Redvers Buller, who observed that inexperienced officers were often left bewildered in action:

There is scarcely one officer in a hundred who has been taught any rule which would guide him in deciding how to act when confronted by the problem so frequent in war: ‘I have my orders, but ought I to do?’⁶⁵

The Boer War offered an opportunity to correct this flaw. In contrast to the ‘small wars’ of previous years, the conflict in South Africa ultimately involved the majority of the British Army, giving the advantage of a shared combat experience upon which to base future development. Furthermore, the dismal planning, organisation and intelligence work that had been undertaken prior to the Boer War

⁶² Ellis, John, *The Social History of the Machine Gun*, (London, Pimlico, 1993), p.19

⁶³ Beckett, I. F. W., *Ypres: The First Battle 1914* (Harlow, Pearson/Longman 2006) p.38; Ascoli, David, *The Mons Star*, (Edinburgh, Birlinn 2001) p.8

⁶⁴ Ramsay, *Command and Cohesion*, p.153

⁶⁵ *Elgin Commission*, Vol.2, Q15502, p.213

prompted the revival of the debate upon the desirability of instituting a General Staff system.⁶⁶ This ultimately bore fruit in 1904, when the reforms recommended by the Esher Committee swept away the post of Commander-in-Chief and replaced it with Britain's first General Staff, headed by successful Boer War commander Neville Gerald Lyttelton.

Shared combat experience and the creation of the General Staff laid valuable groundwork for developing key principles that would carry the British Army into the 20th century, but there were several crucial difficulties that delayed and ultimately prevented the creation of a formal doctrine prior to the First World War. The greatest of these problems was the unique military responsibilities imposed by the need to police the world's largest empire. Potential enemies and theatres of operations varied enormously, with the army as likely to face crudely armed tribal foes as they were opposition equipped with modern rifles. Dealing with these imperial conflicts remained the principal duty of the British Army in the immediate aftermath of the Boer War. A struggle against European opposition was considered highly unlikely, with the possible exception of a clash with Russia if the latter chose to invade India.⁶⁷ Contemporaries recognised that while the tactical lessons learned in South Africa were certainly valuable, the sheer variety of foes presented unique problems for the formation of a formal doctrine based on the example of a single conflict. One Boer War veteran officer complained of the dangers of being "tied down to hard and fast rules", while Major General J.F. Maurice summed the problems up:⁶⁸

I venture to think that there is a danger in our assuming that we can, from this one war [the Boer War], deduce all the lessons which will be applicable to the work of the British Army... I maintain that the British Army is under a condition of difficulty... that exists for no other Army in the world, and we must face and recognise the fact that we cannot attempt to stereotype our tactics.⁶⁹

Training manuals of the Edwardian period reflected the reluctance to create a formal doctrine, highlighting general principles but leaving considerable leeway for interpretation amongst officers. This ensured tactical flexibility for facing a wide variety of enemies, but it created a certain degree of confusion and inconsistency in training. As discussed in earlier chapters, these problems manifested themselves in the differing methods used by various commands regarding fundamental tactics such as the width of infantry extensions, and the deployment of artillery in covered or open positions. While such difficulties were of limited importance in small colonial actions where relatively low numbers of

⁶⁶ Gooch, John, *The Plans of War: The General Staff and British Military Strategy c.1900-1914* (London, Routledge & Kegan Paul, 1974) p.20

⁶⁷ Amery, *Problem of the Army*, p.4

⁶⁸ *Elgin Commission*, Vol.2, Q16235, p.251

⁶⁹ Comment on Vincent, "Lessons of the War", in *JRUSI*, 44(1), 1900, pp.658-59

troops would be deployed, the growing threat from Germany and the risk of a large scale European war suggested the need for more operational doctrine within the British Army.

However, the creation of any central doctrine was constrained, not only by the need to remain flexible for a huge variety of potential foes, but also by concerns that it could potentially stifle officer initiative and cause a recurrence of the problems that had bedevilled the British Army in South Africa.⁷⁰ Indeed, the desire to improve the independence of junior officers and men in the years following the Boer War was so strong that it sometimes became counterproductive. In 1905, Sir John French praised the spirit evident in company training, but cautioned that in giving captains the opportunity to exercise their initiative meant that bad habits and “manifestly wrong” methods could develop. However, mindful of the need to encourage individual command skills amongst junior officers, battalion colonels were reluctant to point out errors, causing French to highlight the fact that “...some ‘guidance’ (rather than ‘interference’) is imperatively called for.”⁷¹ This problem was common in the British Army throughout the period, with local methods being tolerated and leading to the development of subtly different tactics in separate commands and divisions. In 1907, the Duke of Connaught expressed concerns that there was a “go as you please” attitude towards tactics, and that the lack of central doctrine created a “...tendency to (form) cliques around particular Generals, from which the Army has suffered in the past.”⁷² This problem remained largely unresolved, arguably growing worse as the Boer War faded from memory. John French noted in 1911 that:

The South African War and the lessons learnt from it had the effect of starting a new school of thought, which for some years gave a great impetus to training, and revived interest and initiative among officers. This seems to have died away into theory. We have a superfluity of literature on training, and a mass of theory is thrown at the heads of officers which they do their best to assimilate, but which has little visible effect.⁷³

Other officers agreed with this assessment, noting that despite the amount of literature produced, it provided little central direction and thus tended to confuse rather than clarify. Brigadier General F.C. Carter bemoaned the disease of “cacoethes scribendi”,⁷⁴ complaining that “Every spring and autumn lengthy and verbose paraphrases of our Field Service Regulations are issued from several of the Command, Divisional, and Brigade Headquarters. These only tend to confuse and exasperate commanding and other officers...I have seen no less than 14 of these paraphrases, called ‘Hints on Training’, mostly of two printed foolscap pages, all issued in one year from a Divisional General Staff

⁷⁰ TNA WO 163/14 IGF Report for 1908, pp.159, 161

⁷¹ TNA WO 27/504 Memorandum on Military Training, 31st January 1905

⁷² TNA WO 163/13 IGF Report for 1907, pp.6-7

⁷³ TNA WO 163/17 IGF Report for 1911, p.518

⁷⁴ “The irresistible urge to write.”

Officer.”⁷⁵ This mass of often contradictory literature did not serve to create a uniform doctrine, and diversity of method remained. Official training manuals offered sound guiding principles but rejected formal doctrine. *Infantry Training* 1905 was particularly stringent upon the issue, stating:

“It is impossible to lay down a fixed and unvarying system of attack or defence. Although such system might appear capable of modification to meet different conditions, yet constant practice in a stereotypical formation inevitably leads to want of elasticity, accustoms all ranks to work by rule rather than by the exercise of their wits, and cramps both initiative and intelligence...It is therefore strictly forbidden either to formulate or to practise a normal form of either attack or defence.”⁷⁶

Despite the caution about fixed methods of attack, one clear principle that was emphasised in official manuals throughout the era was the need for close co-operation of all arms. This had been the key to victory in the Boer War, particularly in Natal where co-operation between infantry and artillery had eventually allowed the British to break through the Boer lines. Equally, in the more open terrain of the Orange Free State, Lord Roberts’s combination of frontal infantry attacks and turning movements with cavalry and mounted forces had driven the Boers back at relatively low cost. *Combined Training* 1905 embodied these concepts in a particularly clear paragraph that had echoes of the experience of South Africa.

...mounted troops and infantry compel the enemy to disclose his position and thereby afford a target to the artillery, whilst the latter by their fire enable infantry to approach the hostile position. Infantry, unaccompanied by mounted troops, is hampered by ignorance of the enemy’s movements, cannot move in security, and is unable to reap the fruits of victory; unaccompanied by artillery, it is unable to reply to fire beyond rifle range, and is generally powerless against entrenchments. On the other hand, without artillery or machine guns, even the most mobile cavalry, unless they possess a marked numerical superiority, cannot be relied upon to drive back the hostile horsemen; while artillery, left to itself, is helpless.⁷⁷

Combined Training went on to urge that all officers should gain some knowledge of the principles of employment of other arms.⁷⁸ The theme was continued in *Field Service Regulations* 1909, with the paragraph on combined arms being repeated almost verbatim.⁷⁹ However, while urging closer co-operation, little was done to suggest a systematic manner in which it could be achieved. For example, *Infantry Training* 1905 devoted three paragraphs to co-operation with artillery, emphasising its

⁷⁵ Brigadier General F.C Carter, “Our Failings in the Assault” in *Army Review* (3)1912, p.99

⁷⁶ War Office, *Infantry Training* 1905 (London, H.M.S.O, 1905) p.123

⁷⁷ *Combined Training* 1905, p.99

⁷⁸ *Ibid*, p.98

⁷⁹ War Office, *Field Service Regulations Part 1: Operations* 1909 (London, H.M.S.O, 1909) p.14

importance but offering no real advice on how it could be developed.⁸⁰ The failure to create a doctrinal framework for all arms co-operation was a serious weakness for the British Army. Without systematic guidance, the individual arms tended to learn within their own framework, and developing closer links took time and effort to bear fruit. This was particularly true of infantry and artillery, and will be discussed in greater depth in subsequent chapters.

Some historians have praised the issue of *Field Service Regulations* 1909, with Jay Luvaas feeling that it effectively created a uniform doctrine and Corelli Barnett arguing that without it, the enormous expansion of the British Army in the First World War would have resulted in utter chaos.⁸¹ Even John Dunlop considered the work to be “...of the greatest value for the inculcation of one central doctrine...”⁸² In fact, while *Field Service Regulations* was an important advance in British military thinking, it did not represent the creation of a formal written doctrine, and continued the trend of rejecting the concept. The opening chapter of *F.S.R* stated “The fundamental principles of war are neither very numerous nor in themselves very abstruse, but the application of them is difficult and cannot be made subject to rules.”⁸³ *F.S.R* continued to place great emphasis on co-operation between the arms, noting “**The full power of an army can be exerted only when all its parts act in close combination**” (emphasis in original) but while encouraging close links, the manual did little to ensure unity of method amongst arms or divisions.⁸⁴ For example, in 1912 the Inspector General of Forces praised the quality of *Field Service Regulations* and its accompanying service manuals, but identified four critical tactical problems that were still open to substantial interpretation, noting that these meant there was still “...opportunity [for] individuals to put their own views into practice.”⁸⁵ Furthermore, during a 1912 inspection, it was found that 2nd, 3rd, and 4th Division each had their own preferred method of attack that differed considerably from one another, causing the Inspector General to complain that while junior officers and men were at a peak of efficiency, the army as a whole had not achieved “...anything approaching uniformity of practice, which is so divergent in different divisions that it would be difficult for them to combine into an army that acts with full effect.”⁸⁶ However, the Army Council expressed little concern at the criticism, noting that *Field Service Regulations* clearly stated that methods should vary according to circumstances, and that therefore such variation in training was in fact to be considered “essential”.⁸⁷ It was somewhat blithely assumed that in the event

⁸⁰ *Infantry Training 1905*, p.135

⁸¹ Luvaas, Jay, *The Education of an Army: British Military Thought 1815-1940* (London, Cassell, 1965) p.309; Barnett quoted in De Groot, Gerard, *Douglas Haig 1861 – 1928* (London, Unwin Hyman, 1988) p.128

⁸² Dunlop, John *The Development of the British Army 1899 – 1914* (London, Methuen, 1938) p.293

⁸³ *Field Service Regulations 1909*, p.13

⁸⁴ *Ibid*, p.14

⁸⁵ TNA WO 163/18 IGF Report for 1912, p.566-68. The problems listed were employment of divisional cavalry, the use of advanced guards, deployment methods and use of reserves, and handling of encounter actions.

⁸⁶ *Ibid*, pp.567-568

⁸⁷ *Ibid*, Army Council comment pp.567-568

of a combined operation between the formations, the divisions would be acting under the orders of a higher authority and thus be able to regulate their methods to achieve their directed objectives.⁸⁸

While official manuals continued to emphasise the attributes of flexibility and a rejection of formal rules, the British General Staff offered an opportunity to create a 'school of thought' amongst the intellectual elite of the officer class that could ultimately emerge into a doctrine. On the continent, the presence of a General Staff system encouraged the development of operational doctrine, providing leadership from above that filtered down throughout the army. However, in Britain the newly formed General Staff experienced a number of teething troubles that slowed its development and limited its ability to create doctrine. For example, as the first ever Chief of General Staff, Neville Gerald Lyttelton proved to be a great disappointment. While he had done well as a commander in Natal during the Boer War, he was promoted beyond his abilities and offered no real leadership for the General Staff. Charles Repington was scathing about Lyttelton, writing in 1906, "...old N.G.'s idea of happiness is to have no questions asked, and that he rated men according to their capacity for leaving him alone... he and many of his officers are the laughing stock of the Army and a fraud upon the public."⁸⁹ In addition to the weak leadership of Lyttelton, the General Staff was initially plagued by organisational problems and petty squabbles, delaying its true development.⁹⁰ Indeed, historians Shelford Bidwell and Dominick Graham have argued that the General Staff did not constitute a true corps of elite, intellectual soldiers until at least 1908, when Lyttelton was replaced by William Nicholson.⁹¹

While the General Staff played an important role in developing training manuals and held regular conferences discussing tactical problems, this did little to solve the lack of doctrine and the diversity of method noticeable in the smaller formations of the British Army. Part of the problem lay in the fact that the General Staff was somewhat disconnected from the lower ranking officers of the British Army. In 1907, the Duke of Connaught had complained that the General Staff did not provide leadership that filtered down, arguing that the body was "out of touch" with the army as a whole and in danger of being viewed as "just another War Office organisation."⁹² Historian Martin Samuels has argued the entire army in this period was in the grip of a 'cult of rank' that limited debate between senior commanders and junior officers, a factor that seriously impaired the ability of the General Staff to devise a doctrine that would be accepted and implemented at lower levels.⁹³ For example, in 1905,

⁸⁸ Ibid, Army Council comment, p.567

⁸⁹ Morris, A.J.A (ed.), *The Letters of Lieutenant Colonel Charles à Court Repington*, (Stroud, Army Records Society, 1999), p.109

⁹⁰ Gooch, *Plans of War*, pp.70-71, 82

⁹¹ Bidwell, Shelford & Graham, Dominick, *Firepower: The British Army Weapons and Theories of War 1904-1945* (Barnsley, Pen & Sword 2004) p.19

⁹² TNA WO 163/13 IGF Report for 1907, p.7. It is interesting to note that in his memoirs, Neville Lyttelton says little about his time as Chief of General Staff, categorising it simply as "War Office work". See Lyttelton, Neville *Eight Years: Soldiering, Politics, Games* (London, Hodder & Stoughton, n.d) pp.270-275

⁹³ Samuels, *Command or Control?*, p.58

a proposal to publish the reports on Staff Tours for the benefit of junior officers was rejected on the grounds that they would “...probably be too difficult for the Regimental officer.”⁹⁴ At the first General Staff conference in January 1908, officers below the rank of Colonel were not allowed to participate in the debate, even though out of the 54 attending officers, 20 were Lieutenant-Colonel or lower.⁹⁵ The result of this dislocation was that General Staff ideas sometimes ran counter to the prevailing ethos at lower levels. For example, while initiative and flexibility were emphasised at battalion level throughout the Edwardian period, in 1910 Douglas Haig expressed concern at ideas put forward at the staff conference of that year, writing “I already see from your discussion at the Staff Coll. Confer. a tendency to split hairs, and a desire for *precise* rules to guide officers in every conceivable situation in war. This wants watching.”⁹⁶

Faced with the need to remain flexible to face a variety of enemies around the globe and lacking strong direction from the fledgling General Staff, the British Army was neither willing nor able to develop a formal operational doctrine prior to the First World War. Instead any ideas of doctrine were couched in loose and general terms, with wide room for interpretation. For example, M.F. Rimington described a doctrine that permeated all ranks as “...essential to success in war”, going on to echo *Field Service Regulations* in stating “The doctrine is ‘THE UNION OF ARMS AND THE RESOLUTE OFFENSIVE.’”⁹⁷ While the British Army was undoubtedly moving towards closer co-operation between arms, particularly infantry and artillery, the considerable variance of tactical methods in each of the six B.E.F. divisions placed limits on how much could be achieved prior to the First World War. The problems of this approach were revealed in actions such the Battle of Le Cateau 26th August 1914, where contradictory ideas of artillery deployment resulted in the gunners of each division deploying in a different manner to achieve the same goal, as will be discussed in greater detail in later chapters. Martin Samuels and Tim Travers have been critical of the failure to develop a formal doctrine, arguing it allowed backward ideas to flourish, contrasting it with the success of the German General Staff.⁹⁸ However, Travers also acknowledges that in 1914 the B.E.F. as a whole emphasised a “sensible and flexible” approach to war that avoided stereotypical tactics, with the main problems lying in implementation rather than theory.⁹⁹ More recently it has been suggested that while the British Army undoubtedly suffered command problems at higher levels in 1914, at a tactical level it was considerably more advanced.¹⁰⁰

⁹⁴ TNA WO 163/11 Army Council Comment on IGF Report for 1905, p.212

⁹⁵ Gooch, *Plans of War*, p.115

⁹⁶ Quoted in Gooch, *Plans of War*, p.118

⁹⁷ Rimington, M.F, *Our Cavalry*, (London, Macmillan, 1912) p.176. Emphasis in the original.

⁹⁸ Samuels, *Command or Control?*, pp.7 – 60; See also Travers, *The Killing Ground*, pp.38-39, 41

⁹⁹ Travers, Tim, “The Offensive and the Problem of Innovation in British Military Thought 1870-1915” in *Journal of Contemporary History* 13 (1979) pp.539-540

¹⁰⁰ Searle, *Quest for National Efficiency*, p.50

This dichotomy between tactical skill and operational weakness was influenced by the experience of the Boer War. The struggle in South Africa had highlighted numerous weaknesses in the training of officers and men, as well as clearly demonstrating the tactical command problems that existed on a modern battlefield. However, the unusual nature of the Boers and relative brevity of the conventional stage of the war meant that there was little opportunity to learn operational level lessons that could prove useful in the scale of conflict that a European war would entail. Furthermore, the Boer War did not fundamentally alter the duties of the British Army, which remained a small force designed to police the empire rather than engage in mass scale warfare. The doctrinal lessons learned in South Africa were principally aimed to ensure success in the next major colonial war, rather than in a vast European struggle.¹⁰¹ This fact has caused some historians to be critical of the tactical approach that emerged as a result of the Boer War, with G.R. Searle arguing that it meant reformers "...often became convinced of the merits of measures that later proved to be irrelevant, if not positively harmful... British soldiers had engaged in a mobile, open war, in which small groups of men were obliged to assume a large amount of responsibility for their own actions... in short, South Africa did not provide the best possible preparation for the battlefields of northern France and Flanders."¹⁰² However, this opinion has been criticised by M.A. Ramsay, who argues that the need for skill, intelligence and initiative amongst lower ranks highlighted in the Boer War proved to be a crucial component in achieving victory in the First World War, and that tactical disasters on the Western Front were often due to the incomplete implementation of such concepts, particularly amongst the 'New Armies', which lacked the benefits of long term, advanced training.¹⁰³

Furthermore, in 1914, the high tactical quality of the regular B.E.F. was of critical importance in surviving and ultimately blunting the onslaught of the Germans through Belgium and France. While the operational handling of the British Army during this period has drawn criticism, the skill and professionalism of the army has attracted widespread praise.¹⁰⁴ Although the ethos of the British Army in this period had been geared towards colonial policing duties, at a tactical level it demonstrated considerable flexibility and performed well in the opening months of the First World War. The elite nature of the B.E.F. was a direct result of the new training ethos that emerged as a result of the Boer War, replacing unthinking obedience, dread of responsibility and strict discipline with individual initiative and skill at arms. In the opening months of the First World War, such attributes were vital in allowing the outnumbered British Army to perform so well against their German opposites. John Bourne has described the battles of 1914 as "soldiers' battles" with critical decision making taking place "...at the 'sharp end' among formations of company level or even

¹⁰¹ Nasson, Bill, *The South African War 1899-1902*, (London, Arnold, 1999), p.x

¹⁰² Quoted in Ramsay, *Command and Cohesion*, p.145

¹⁰³ Ibid, pp.145, 162

¹⁰⁴ For criticism of the operational handling of the B.E.F., see Gardener, Nikolas, *Trial by Fire: Command and the British Expeditionary Force in 1914* (Westport, Praeger, 2003); For praise of the tactical skill of the army, see Terraine, John, *Mons: The Retreat to Victory* (Ware, Wordsworth Editions, 2000)

below”, and it was here that the tactical skill of the B.E.F. was at its most prominent.¹⁰⁵ However, the small size of the army and the absence of any formal doctrine meant that once the regular army had effectively been destroyed at the end of 1914, much knowledge was lost, meaning the new volunteer divisions were forced to learn painful and bloody lessons afresh. Many talented young officers of the B.E.F. were killed in the fighting of 1914 and the surviving regular training cadre was too small to provide a useful base for the massive expansion that followed.¹⁰⁶ Early training of the ‘New Armies’ was particularly poor, with many of the problems that had been identified by the Elgin Commission re-emerging, particularly lack of initiative in the absence of direct orders.¹⁰⁷ It would take the bitter experience of combat in 1916 and 1917 before an effective doctrine was crafted that was suitable for the mass warfare of the Western Front. Many of the skills necessary for victory in the First World War, particularly improved squad level tactics and closer co-operation of infantry and artillery, had been identified in the Boer War. However, while many improvements had been made in the 1902 – 1914 period, the failure to codify the concepts into a formal doctrine seriously hampered the training of the massively expanded British Army and forced them to endure a bloody learning curve until final victory in 1918.

The Primacy of the Offensive

In addition to prompting a wide-ranging reform of the training ethos of the British Army, the Boer War also played a key role in the debate around the viability of frontal assault tactics in the face of modern firepower. The discussion regarding how to press an attack successfully in the face of smokeless magazine rifles, machine guns, entrenchments and QF artillery was a common one to all major armies of the period. While advocates of both offensive and defensive methods enjoyed periods of ascendancy, by 1914 a surprising consensus on the issue had emerged across Europe, which ultimately marked a retrograde step for the British Army from the lessons learned in the Boer War.

Concern over the effectiveness of the latest weapons had been growing within military circles throughout the later part of the 19th century. Battles in the American Civil War, the Franco-Prussian War and the Russo-Turkish War had all shown the difficulties of pressing the attack against well-armed and entrenched defenders, with even successful assaults suffering heavy casualties. However, the colonial duties of the British Army meant that encountering foes armed with modern weapons was relatively rare and thus devising solutions to the problems of attack was a lower priority than it was for continental armies. D.M. Leeson has accused the British Army of being backward and ignorant of the dangers posed by firepower prior to the Boer War, but others such as Michael Howard and M.A.

¹⁰⁵ Bourne, *Britain and the Great War*, p.28

¹⁰⁶ Bidwell & Graham, *Firepower*, p.38

¹⁰⁷ Ramsay, *Command and Cohesion*, p.162

Ramsay argue that the difficulties of attacking against modern rifles were well recognised.¹⁰⁸ Indeed, while the British had little experience in facing modern firepower, the effectiveness of their own weapons against tribal foes had been proved throughout the Victorian era. For example, Frederick Maurice cited Omdurman as a counter point to continental thinkers, who argued that numbers and determination could overcome fire, noting “If any accumulation of numbers or any supreme readiness to sacrifice life could enable a body of attacking troops to advance in front against modern infantry and artillery fire, beyond doubt the Dervishes would have broken our line at Omdurman. Therefore that battle gives, under this aspect, food for much reflection.”¹⁰⁹ However, while there were concerns over the effectiveness of modern weapons, there was little consensus on how serious a problem this might pose. Even the forward thinking G.F.R. Henderson considered that “Shrapnel, Maxims and the small bore do not seem to increase the butcher’s bill to the extent some would have us believe...”, although he acknowledged that the effect of fire on troops in the open would be “very great”.¹¹⁰

The experience of the Boer War starkly revealed that the more cautious analysts of the Victorian army had been correct. Lacking mobile forces that could outflank the enemy in the early stage of the war, the British were forced to make frontal assaults against prepared positions, suffering heavy casualties and ultimately being stopped in the triple defeats of ‘Black Week’. At Magersfontein, the Highland Brigade was left pinned down on an open plain for hours, with small groups at various ranges between 200 and 600 yards from the Boer line, unable to advance or retreat. Leo Amery wrote after the war “...efforts to rush the trenches were still made from time to time, but gallantry was powerless in the face of the overwhelming advantage of position...Rarely have troops gone through so severe an ordeal.”¹¹¹ At the Battle of Paardeberg, Horace Smith-Dorrien witnessed a succession of attacks across open ground against the entrenched Boer laager come to grief, recalling one attempt in the following terms: “It was a gallant charge, gallantly led, but the fact that not one of them got within 300 yards of the enemy is sufficient proof of its futility.”¹¹² These early defeats, particularly in Natal, showed clearly that frontal attacks against well positioned Boers could only succeed with strong artillery support, wide infantry extensions and skilful tactics.

Upon assuming command in South Africa, Lord Roberts adopted a different strategy for dealing with the Boers. Whereas Buller and Methuen had been forced by geography, limited supply lines and lack of mobile troops into making frontal assaults, Roberts possessed far larger numbers of cavalry and aimed to manoeuvre the Boers from strong positions rather than batter his way through them. Frontal attacks were made by widely extended lines and aimed to hold the Boers in place, while flanking

¹⁰⁸ D.M. Leeson, “Playing at War: The British Military Manoeuvres” in *War in History*, 15(4) 2008, pp.460-461; Michael Howard, “Men Against Fire: Expectations of War in 1914” in *International Security*, 9(1), 1984, p.43; Ramsay, *Command and Cohesion*, p.32

¹⁰⁹ Frederick Maurice, “Omdurman”, in *Nineteenth Century*, XLIV (1898), p.1054

¹¹⁰ Henderson, *Science of War*, p.339

¹¹¹ Amery, *Problem of the Army*, p.405

¹¹² Smith-Dorrien, *Forty Eight Years*, p.154

forces turned them out of their positions.¹¹³ The strategy repeatedly forced the Boers back, allowing Roberts to relieve Kimberley and seize his objectives in the form of the cities of Bloemfontein and Pretoria, without suffering the kind of defeats suffered by Buller in Natal. However, with the exception of the capture of Cronje's laager at Paardeberg, it also allowed the Boer forces to escape from battle relatively intact, allowing many of them to continue the fight in the guerrilla war. Continental writers, particularly in Germany, were contemptuous of this approach. The German official history of the war complained that "...Lord Roberts's system throughout the whole campaign was to manoeuvre rather than to fight...." and lambasted the British for being unwilling to risk heavy casualties.¹¹⁴ Lord Roberts responded, arguing "I manoeuvred in order to be able to fight the Boers on my own and not their terms", noting that the Boers would have been delighted to face British attacks in prepared positions as at Magersfontein.¹¹⁵ Although continental critics remained unimpressed, it was respect for firepower that came to encapsulate British offensive thinking in the years immediately following the Boer War. The experience of fighting in South Africa caused G.F.R Henderson to revise his earlier opinions on modern weapons, writing in 1900 "A direct (or frontal) attack against good troops well posted, always a desperate undertaking, has now become suicidal."¹¹⁶ Ian Hamilton echoed similar sentiments, feeling that old fashioned, European style attacks relying on mass were likely to fail, and instead advocating the use of flanking movements and enfilade fire in the assault.¹¹⁷ Some officers such as C.E. Callwell and B.F.S Baden-Powell¹¹⁸ went further, feeling that weapon quality now placed a distinct advantage in the hands of the defender, although such opinions were at the fringes of the argument.¹¹⁹ Although there was an acknowledgement within the army that offensives would be harder under modern conditions, it was felt that while offering a passive defence might win local victories, it would ultimately lead to defeat through failure to capitalise upon them. The Boers were cited as an example of this tendency. While they had won a string of tactical victories against the British in the early part of the war, their failure to follow up their success was seen by some as being fatal.¹²⁰ As one British officer summed up, to remain purely on the defensive was "...to suffer war, not make it."¹²¹

Therefore the ethos that emerged from the Boer War continued to place emphasis on the offensive as the path to ultimate victory, but the methods to be employed were influenced by the bitter experiences fighting in the Tulega and Modder River campaigns. Rejecting simple brute force, official manuals

¹¹³ Howard, "Men Against Fire" in *IS*, 9(1) 1984, p.46

¹¹⁴ TNA WO 105/40 – "The Boer War Through German Glasses" (no pagination)

¹¹⁵ *Ibid.*

¹¹⁶ Henderson, *Science of War*, p.74

¹¹⁷ *Elgin Commission*, Vol.2, Q13941, p. 108

¹¹⁸ The brother of the more famous Robert Baden-Powell.

¹¹⁹ Captain Cecil Battine, "The Offensive versus the Defensive in the Tactics of today" in *Journal of the Royal United Services Institute* 47(1), 1903 p.655

¹²⁰ Pakenham, *Boer War*, p.168. In November 1899, many younger Boer leaders urged an offensive strategy, but were held back by the hesitant Piet Jourbert.

¹²¹ Battine, "Offensive versus Defensive" in *JRUSI*, 47(1), 1903, p.654

suggested manoeuvre in the style of Lord Roberts combined with the close artillery co-operation pioneered in Natal. *Infantry Training 1902* was sceptical about the use of frontal attacks across open ground, suggesting turning movements would yield better results for far fewer casualties.¹²² Well trained, skilful troops and extended formations were to reduce casualties during the advance, with great attention paid to the use of cover. As one officer commented in 1903, “If the old attack formations resembled the advancing tide, the new one will recall a number of parallel or converging streams rushing forward, as the surface of the ground permits.”¹²³ If the enemy was particularly well entrenched and had secure flanks, direct assault was rejected and instead an approach by sap was advocated, such as that employed at Paardeberg.¹²⁴ Indeed, the use of saps to close with an entrenched enemy formed the main focus for the 1906 manoeuvres in India.¹²⁵

However, a number of factors meant that the new found respect for firepower gradually became eroded as the Edwardian era continued. The popularity of aggressive tactics remained high throughout European armies during this period, creating a virtual ‘cult of the offensive’ in the French army and becoming a major influence for both the British and the Germans. This development has been widely analysed by historians including John Ellis, Michael Howard, M.A. Ramsay and Tim Travers.¹²⁶ While points of difference remain, a general consensus exists on the idea that military leaders saw the offensive as granting moral superiority, allowing courageous men to overcome well armed but passive opponents through strength of will. Britain never became as devoted to the spirit of the offensive as the French, but a variety of influences in the years prior to the First World War meant that the British Army gradually began to lose sight of the lessons learned in South Africa.

One of the key influences throughout this period related to the new spirit of tactical initiative. Since the American Civil War, there had been concerns that once troops were given the chance to seek their own cover, getting them to move again would be extremely difficult, if not impossible. These issues were of particular concern to the British Army as it moved away from close control towards extended formations and local initiative. Doubts remained about the ability of the British lower classes to live up to the new tactical standards expected of the post-Boer War army, particularly how to maintain morale and ensure an advance when officers were not close at hand. While thorough training, strong low level leadership and *esprit de corps* were seen as important factors, it was also considered essential that the men should be highly motivated.¹²⁷ High levels of individual motivation were seen as a form of discipline in themselves. Douglas Haig extolled the virtues of “...courage, energy,

¹²² War Office, *Infantry Training 1902* (London, H.M.S.O 1902) pp.146-147

¹²³ Battine, “Offensive versus Defensive” in *JRUSI*, 47(1), 1903, p.663

¹²⁴ *Ibid*, p.661

¹²⁵ Smith-Dorrien, *Forty Eight Years*, pp.337-338

¹²⁶ See variously: Ellis, *Social History of the Machine Gun*, Howard, “Men Against Fire” in *IS*, 9(1) 1984, pp.44 – 57; Ramsay, *Command and Cohesion*, Travers, *The Killing Ground*.

¹²⁷ Tim Travers, “Technology, Tactics and Morale: Jean De Bloch, the Boer War and British Military Thought 1900-1914” in *Journal of Military History* 51(2) 1979 pp.272-274

determination, endurance, perseverance, and unselfishness”, noting that “Without these qualities, which mean *discipline*, no combination will be possible.”¹²⁸ To this end, the belief in the offensive and the exultation of moral strength became complementary ideas. To physically press a frontal attack in the face of modern weapons required great courage, while the determination to assume the offensive was held to give the attacker a distinct moral advantage over the enemy.¹²⁹

Nevertheless, the bitter experience of the Boer War had shown that even courageous and highly disciplined regular soldiers could be stopped by the fire of magazine rifles. Such a view may have continued to pre-dominate in the British Army had it not been for the events of the Russo-Japanese War. During the conflict in Manchuria, Russian forces had assumed a generally defensive posture, fighting from behind earthworks and attempting to weather a string of Japanese attacks. The fire swept zone in this conflict was even deadlier than it had been in the Boer War, with machine guns and large amounts of artillery adding substantial strength to the defender. The Japanese were typically forced to approach via sap, moving under cover of darkness to within assault range of the Russian trenches.¹³⁰ Even with such preparations, attacks against Russian positions tended to be bloody affairs, but despite suffering heavy casualties, they were often successful. Jack Snyder has argued that this led European observers to create a two level analysis. On one hand, the tactical lessons emphasised the increase of firepower, the requirement for invisibility and the high cost of assaults, but at a strategic level it was seen to demonstrate the power of the offensive to overcome the passive defensive, even if the defenders held a numerical advantage and the benefit of field works.¹³¹ Indeed, the tactical observations seemed to confirm many of the lessons of the Boer War regarding firepower, entrenchment and concealment. British observers were generally cautious about the success of Japanese assault tactics. One officer concluded that the tactics of both armies “...consisted chiefly of hard pounding, and the Japanese pounded hardest.”¹³² Ian Hamilton admired the speed of Japanese infantry rushes, but attributed much of their success to the abysmal marksmanship of the Russians, feeling that against well trained British troops “... I do not see how the Japanese could hope to sprint across the last 300 yards...”¹³³ Officers from the Royal Engineers noted that even successful attacks had taken several days of hard fighting, with particularly heavy losses in the initial assault waves.¹³⁴ One Royal Engineer commented that future attack tactics “...will involve an appalling amount of

¹²⁸ Douglas Haig, “Army Training in India” in *Army Review* 2, 1912, p.76

¹²⁹ Major G.H.J. Rooke, “Shielded Infantry and the Decisive Frontal Attack” in *Journal of the Royal United Services Institute* 58(1), 1914, p.772

¹³⁰ Howard, “Men Against Fire” in *IS*, 9(1) 1984, p.54

¹³¹ Snyder, Jack, *The Ideology of the Offensive: Military Decision Making and the Disasters of 1914* (Ithaca, Cornell University Press, 1984) pp.77-81

¹³² TNA WO 33/350 Reports from Manchuria, p.125

¹³³ Hamilton, Ian, *A Staff Officer's Scrap Book During the Russo-Japanese War* (London, E. Arnold, 1908) Vol.1, p.151

¹³⁴ Lieutenant Colonel G.M. Heath, “Field Engineering in the Light of Modern Warfare”, in *Journal of the Royal United Services Institute*, 50(1), 1906, pp.314-316. Japanese Pioneer units that led assaults were reported as suffering 75% casualties on one occasion.

spade work” but felt that this was the only way it would be possible to close with an entrenched enemy without prohibitive casualties.¹³⁵

Yet, while the majority of tactical observations stressed the difficulty of assault and the heavy casualties it would entail, the fact the Japanese had won the war with offensive strategy was seen as the ultimate vindication of the power of the attack.¹³⁶ Tactical observers had placed importance on the use of entrenchment and close artillery support on the offensive, but these key factors were sometimes neglected by analysts, who often saw them as being of secondary importance to willpower and morale.¹³⁷ For example, the Japanese suffered 48,000 casualties in assaults against the defences of Port Arthur, compared to 28,200 casualties suffered by the Russians, but the eventual success of the Japanese attacks was held up as proof that morale could overcome the material advantages enjoyed by the defenders of the Russian fortifications.¹³⁸ Even the commander of the Russian forces in Manchuria, General Kuropatkin, supported this idea, writing after the war “...our moral strength was less than that of the Japanese...This lack of martial spirit, of moral exaltation, and of heroic impulse, affected particularly our stubbornness in battle. In many cases we did not have sufficient resolution to conquer such antagonists as the Japanese.”¹³⁹ The Japanese warrior spirit of *Bushido* was admired by European observers, and their willingness to take severe casualties in frontal attacks was contrasted favourably against the British preference for flanking moves in the Boer War. German critic Major Balck felt that the Japanese had succeeded precisely because they had rejected British tactics, and had instead “...pushed doggedly forward like angry bull dogs, never halting, until, bleeding and exhausted, they had fastened themselves on the enemy and won the victory.”¹⁴⁰ In the aftermath of the Russo-Japanese War such views became popular throughout Europe, particularly in France. While the Boer War had seemed to demonstrate the power of modern weapons, the lessons of that conflict had never been widely accepted in France or Germany, and historians have suggested that this resurgence in the belief that willpower and morale could overcome fixed defences represented the existence of pre-conceived ideas that had not been modified by the South Africa war.¹⁴¹

The situation was somewhat different for the British Army, which had the benefit of having practical experience in the Boer War. Although assessments drawn from the Russo-Japanese War regarding the offensive were more cautious than those that developed on the continent, they had the unfortunate

¹³⁵ Captain J.E.E. Craster, “The Attack of Entrenched Positions”, in *Royal Engineer’s Journal* 3, 1906, p.342

¹³⁶ Snyder, *Ideology of the Offensive*, p.78

¹³⁷ Yigal Sheffy, “A Model Not to Follow: The European Armies and the Lessons of the War” in Kowner, Rotem (ed.) *The Impact of the Russo-Japanese War* (London, Routledge, 2007) pp.263-264

¹³⁸ Snyder, *Ideology of the Offensive*, p.80

¹³⁹ Kuropatkin, G.N., *The Russian Army and the Japanese War* (London, John Murray, 1909), Vol.2, p.80

¹⁴⁰ Quoted in Captain Ashley Barret, “Lessons to be learned by Regimental Officers from the Russo-Japanese War”, in *The Journal of the Royal United Services Institute* 51(1), 1907, p.813

¹⁴¹ Rotem Kowner, “Between a Colonial Clash and World War Zero: The impact of the Russo-Japanese War in a global perspective” in Kowner, Rotem (ed.) *The Impact of the Russo-Japanese War* (London, Routledge, 2007) pp.12-13

effect of stifling the trend of thinking that had emerged from the South African conflict.¹⁴² As in the French army, willpower was emphasised over firepower by some officers. Even Ian Hamilton argued that “Blindness to moral forces and worship of material forces inevitably lead in war to destruction.”¹⁴³ *Field Service Regulations* echoed similar sentiments, stating “Success in war depends more on moral than physical qualities. Skill cannot compensate for want of courage, energy and determination...” although it also sounded a note of caution for those who might take such ideas to extremes, adding “...but even high moral qualities may not avail without careful preparation and skilful direction.”¹⁴⁴ The belief that sheer courage could force men across fire swept ground encouraged some officers to express greater confidence about the success of the attack in the face of modern weapons, rejecting the pessimistic appraisal that had emerged in 1902. These related factors contributed to a subtle change of wording from *Combined Training 1905* to *Field Service Regulations 1909*, placing new emphasis on the final ‘assault’ rather than the development of superior firepower.¹⁴⁵ Similarly, the emphasis on flank attacks that had featured in earlier manuals was changed to finding the weak spot in the enemy line and delivering a decisive assault at that point.¹⁴⁶ The rejection of the South African experience seemed to reach a peak at a 1910 General Staff conference, when Brigadier General Lancelot Kiggell offered an opinion that dismissed the Boer War at a stroke:

After the Boer War the general opinion was that the result of the battle would for the future depend on fire-arms alone, and that the sword and the bayonet were played out. But this idea is erroneous and was proved so in the late war in Manchuria. Everyone admits that. Victory is won actually by the bayonet, or by fear of it, which amounts to the same thing so far as the conduct of the attack is concerned.

This fact was proved beyond doubt in the late war. I think the whole question rather hangs on that; and if we accept the view that victory is actually won by the bayonet, it settles the point.¹⁴⁷

Martin Samuels has used such opinions expressed by high ranking officers to offer a condemnation of the British Army methods as a whole.¹⁴⁸ However, M.A. Ramsay has argued that the thinking did not permeate much below brigade level, where a belief in ‘fire and movement’ and a respect for modern firepower remained central tactical principles.¹⁴⁹ As previously discussed, the General Staff had only limited influence at lower levels, while the failure to devise an overall doctrine meant that individual

¹⁴² Travers, *The Killing Ground*, p.43

¹⁴³ Quoted in Travers, *The Killing Ground*, p.44

¹⁴⁴ *Field Service Regulations 1909*, p.13

¹⁴⁵ *Combined Training 1905* p.100; *Field Service Regulations 1909*, p.144

¹⁴⁶ Travers, “Technology, Tactics and Morale” in *JMH*, 51(2) 1979, p.275

¹⁴⁷ Report on a Conference of General Staff Officers at the Staff College, Camberly, 17-20 January, 1910, p.31

¹⁴⁸ Samuels, *Command or Control?*, pp.94-123

¹⁴⁹ Ramsay, *Command and Cohesion*, p.109

commanders still had great latitude with regard to their tactics. This meant that the 'cult of the offensive' that gripped the French never emerged in the British Army, although individual officers could sometimes favour such ideas.¹⁵⁰ Furthermore, there were contrary voices within the army who criticised the dedication to aggressive tactics. Major General May bemoaned that determination to attack "...threatens to become a stereotypical phrase...This is so everywhere, although there are not wanting signs that the vogue is less unquestioned than it was..."¹⁵¹ The belief that courage alone carry men forward also received criticism. Major Rooke discussed the issue in early 1914, echoing sentiments expressed by Maurice's earlier appraisal of Omdurman:

It is clear that however much the attacking troops may be 'trained above the fear of death', this itself will not prevent their being struck by the enemy's bullets, and may not improbably even increase their losses since such troops are likely to expose themselves unduly.¹⁵²

Attitudes towards the offensive were malleable throughout the period. In the aftermath of the Boer War, there was pessimism and caution regarding attacks against modern weapons, but the attitude was reversed following the apparent success of the Japanese in Manchuria. However, from 1912 onwards, Tim Travers has argued that the trend once again began to turn against dedication to moral forces and the offensive at all costs, even suggesting that had the First World War broken out in 1916, the British Army would have been in possession of highly "realistic and imaginative" tactics.¹⁵³ Equally, it remains questionable to what extent such ideas became popular at the tactical level of the British Army, with M.A. Ramsay arguing that they had limited influence in brigade and battalion work.¹⁵⁴

Nevertheless, views from the continent, doubts about the courage of lower class troops and the misinterpretation of examples from the Manchurian war had the negative effect of causing the British Army to forget some of its own South African experiences. The cautious assessment that had emerged in 1902 was gradually eroded, downgrading the importance of firepower and movement and replacing it with a belief in moral supremacy and willpower. While the British were more cautious about the implications of firepower than some of the continental nations, the belief that willpower could triumph over modern weapons was a dangerous line of thought. In expressing belief in the bayonet and moral forces, officers such as Lancelot Kiggell were in danger of forgetting the experiences of the Boer War, where courageous and hard drilled regulars had often been unable to make any progress against untrained farmers armed with modern rifles. Fortunately for the British Army, such views did not go unchallenged and did not develop into a firm doctrine as they did for the French. However, their growing popularity following the Russo-Japanese War represented a clear

¹⁵⁰ Major W.D. Bird, "Some Notes on Modern Tactics", in *Journal of the Royal United Services Institute*, 53(1), 1909, p.492

¹⁵¹ Major General May, "Freedom of Manoeuvre", in *Army Review*, 4, (1913), p.445

¹⁵² Rooke, "Shielded Infantry", in *JRUSI*, 58(1), 1914, p.773

¹⁵³ Travers, "Technology, Tactics and Morale" in *JMH*, 51(2) 1979, p.277

¹⁵⁴ Ramsay, *Command and Cohesion*, p.109

regression in thought from the cautious but intelligent assessment of the offensive that had developed in the aftermath of the Boer War. While the regular B.E.F. fought on the defensive for virtually all its major battles, in the later years of the First World War the failure to ally commensurate tactical and operational skill to courage in the offensive often led to tragic consequences. The root of such thinking lay in the pre-1914 era, and thus the rejection of the lessons regarding firepower and willpower that emerged from the Boer War must count as a serious error for the British Army.

Conclusion

The British Army of 1914 was unique in many ways. Despite the growing threat from Germany in the latter part of the Edwardian era, the army remained a colonial police force that faced potential deployment to locations all across the empire. Confronted with this challenging role, the British Army developed along quite different lines to the mass armies of the continent, emphasising skill in low level tactics and encouraging diversity of method amongst its divisions but lacking an operational doctrine. Training manuals for individual service arms and the army as a whole followed this trend, emphasising adaptability and flexibility rather than providing a written doctrine. In organisational and operational terms, the army remained wedded to 'small war' principles, but its professionalism, training and tactical flexibility meant that it performed well in 1914, despite being heavily outnumbered.

The Boer War had played a key role in shaping the army's development along these lines. In terms of operational lessons, the Boer War provided limited guidance. The conventional stage of the war had lasted less than a year, turning into a mobile guerrilla conflict following the fall of the Boer capitals. The hard lessons learned by the British in the early battles showed the need for skill and initiative at all levels, as well as demonstrating the terrific difficulties associated with frontal attacks against modern firepower. These ideas came to form the linchpin of the British Army's tactical development in the years immediately following the war, encouraging a new dedication to training that allowed the army to develop many of the new tactical ideas discussed in earlier chapters. By 1914, this change in training ethos had produced elite infantrymen, capable of an unprecedented rate of aimed fire, skilful in the use of the ground and capable of operating in extended formations. However, while the British Army had many strengths in 1914, it also had weaknesses. In remaining a colonial army that emphasised flexibility, it ensured it could perform a wide number of roles, including successfully engaging the German army in 1914. However, the focus on flexibility combined with a lack of operational doctrine to create considerable diversity of method amongst the various divisions. The tactical skill and professionalism of the B.E.F. masked many of these problems, but they became particularly acute once the old regular army had been replaced by fresh volunteer divisions. Without the benefits of a long period of training and lacking a formal written doctrine from which to draw, these new formations were forced to learn from scratch. This meant that the British Army repeated

tactical mistakes that had been identified by the Elgin Commission a decade earlier, and was forced to endure a long, painful process of in-theatre learning that took several years before it finally bore fruit.

The British Army of the First World War has sometimes been criticised in comparison with the German army, most notably by Martin Samuels, who contrasts German operational brilliance against British incompetence.¹⁵⁵ However, in 1914, the British and German armies represented curious opposites. As previously discussed, the colonial duties of the British Army emphasised small scale tactical principles and lacked formal operational doctrine. Conversely, the German army had virtually no colonial duties and had long anticipated a vast European conflict against France and Russia. The focus on this coming continental struggle encouraged the German army to develop detailed operational plans for the defeat of her future enemies. However, this focus on operational level planning had become something of a fetish in the latter part of the Edwardian period, virtually to the exclusion of all other considerations.¹⁵⁶ Bruce Gudmundsson has argued that by 1914, this narrow focus on operations meant that tactics had been relegated to a mere “subsidiary art” in the German army, while Steven D. Jackman has highlighted the fact that old fashioned thinking and conservative attitudes predominated at a tactical level, encouraging close control, mass formations and rigid drill.¹⁵⁷ The tactical backwardness of the German army in this respect became apparent in the early battles of 1914, when British soldiers expressed their amazement at the use of close order columns on a modern battlefield.¹⁵⁸ The striking contrast in infantry tactics adopted by the two armies is illustrative of the fact that the British had learned crucial lessons in South Africa, translating them into useful tactical principles that served them well in 1914.

The British Army also compared favourably to the French. Although it possessed a colonial branch, some sections of the French army had blamed defeat in 1870 on the influence of colonial officers, who had developed great reputations in imperial wars but had failed in combat against the Germans. The simmering tensions between colonial soldiers and the metropolitan army remained unresolved in the pre-First World War period, preventing any interchange of tactical ideas. The army was also hampered by political pressure from ever changing governments, who disliked the authoritarian aspect of the military and preferred the concept of patriotism replacing discipline.¹⁵⁹ This contributed to a rejection of doctrine by the French army who, expressing similar sentiments to the British, feared it would stifle initiative.¹⁶⁰ Unfortunately, while the British Army was able to develop effective low

¹⁵⁵ Samuels, *Command or Control?*, pp.124-158, 230-270

¹⁵⁶ Gary P. Cox, “Of Aphorisms, Lessons, and Paradigms: Comparing the British and German Official Histories of the Russo-Japanese War” in *The Journal of Military History*, 56(2) 1992, pp.397-398

¹⁵⁷ Gudmundsson, Bruce, *Stormtroop Tactics: Innovation in the German Army 1914-1918* (New York, Praeger, 1989) p.13; Steven D. Jackman, “Shoulder to Shoulder: Close Control and ‘Old Prussian Drill’ in German Offensive Infantry Tactics, 1871-1914” in *The Journal of Military History*, 68(1) 2004, pp.103-104

¹⁵⁸ Terraine, *Mons*, p.83

¹⁵⁹ *March to Marne*, pp.214-215

¹⁶⁰ *Ibid*, p.215

level tactics from the Boer War experience, the French had no comparable examples to provide a base for tactical development. Lacking guidance from above or experience from below, the French army reacted by seizing upon the “cult of the offensive”, a fashionable view that emerged at lower levels and spread throughout the rest of the army.¹⁶¹ Inspired by this idea, French training and tactics revolved almost entirely around the *offensive a outrance*, rejecting doctrine and tactics that took into account modern firepower. British observers in 1912 noted with disquiet, “...the French infantry displayed marked inferiority to our own in minor tactics. There was not... anything like the same efficiency in fire direction and control. The infantry, like the cavalry, did not seem to realize what modern rifle fire was like.”¹⁶² The belief in the *offensive a outrance* bore bitter fruit in the opening months of the First World War, when the French army suffered over 300,000 casualties in reckless attacks against German defences. While certain sections of the British Army had placed similar faith in courage and the bayonet in the aftermath of the Russo-Japanese War, such ideas did not become universal. Although they did lead to a modification of the cautious but realistic attack tactics of South Africa, this reform was never taken to the extremes that prevailed in the French army, and at a tactical level there remained a belief in ‘fire and movement’ and a respect for modern weapons.

However, while the B.E.F. was tactically superior in many ways to both the French and German armies, its colonial roots created operational weaknesses that were to become a problem in the 1914. The British Army had no experience in fighting such a large scale conflict, and lack of operational experience caused errors and a loss of command control during the critical month of August 1914. Indeed, while the stand at the Battle of Le Cateau proved to be of immense importance in holding off German pursuit, it has been suggested that the fact that Smith-Dorrien erroneously assumed his right flank was supported by Haig’s I Corps presented the Germans with a great opportunity to encircle and destroy virtually half of the B.E.F.¹⁶³

¹⁶¹ Ibid, pp.216-217

¹⁶² TNA WO 33/168 Report on French Manoeuvres 1912, p.20

¹⁶³ Cave, Nigel & Sheldon, Jack, *Le Cateau* (Barnsley, Pen & Sword, 2008) pp.13-14

Chapter Two Infantry

The experience of the Boer War shook the British Army to its very core. Despite going to war on the back of tremendous public expectation and overall confidence, the army suffered shocking defeats in the early battles of the campaign. As previously noted, the British Army lacked any real doctrine and instead went to war with a considerable variance of tactical ideas, many of which were found to be outdated and wanting. The British infantry had swept most colonial opposition from fields across the globe, but fighting an opponent armed with smokeless magazine rifles and possessing great mobility, the British found themselves pinned down by accurate rifle fire and unable to make significant progress. Over the course of the war, the infantry was forced to abandon a number of pre-conceived tactical ideas and adapt new, unanticipated solutions to ensure victory. By the close of hostilities, although the British had devised a system that was successful in finally defeating the Boers, it was a widely held opinion that, in the words of Rudyard Kipling's famous poem, the country and army had been taught "no end of a lesson".¹

Of the three main combat arms of the British Army, it was the infantry who learned the most from the experience of war on the veldt. While the cavalry were initially small in numbers and later hampered by their tremendous problems with horse supply, and the artillery saw its importance and opportunities for action decline after the fall of Bloemfontein and Pretoria, infantry played a part in the opening battles of 1899 and remained in the front line until the end of the war in 1902. By the close of this period of hard fighting, a number of serious weaknesses in pre-war tactics and training had been starkly revealed, and a need for reform in both respects to meet the challenges posed by modern firepower, was readily apparent.

The issue was not if reform was needed, but of what kind and how it was to be implemented. Conditions in South Africa had been unusual, with the flat, barren terrain and clear atmosphere combining to make rifle fire highly effective, particularly at long range. This made extrapolation of lessons difficult, and as revealed by the findings of the *Elgin Commission*, the army lacked a unanimous opinion on what tactical direction to take in the years following the war in South Africa. Ian Beckett has argued that the fact that the lessons of the Boer War were neither self-evident nor unambiguous meant its overall impact on tactical reform was somewhat diffuse and limited.²

Additionally, persistent structural problems such as the lack of men available for training in the average company and the drain of drafts for India placed certain limits on the extent to which tactics

¹ From the poem "The Lesson" by Rudyard Kipling, first published in *The Times* in July 1901.

² Ian Beckett, "The South African War and the Late Victorian Army" in Davis & Grey (eds.) *The Boer War: Army, Nation and Empire* (Canberra, Army History Unit, 2000) p.32

could be improved. Since the Cardwell reforms in 1871, British regiments had consisted of two linked battalions, one of which would be stationed in Britain and provide a source of recruitment, while the other would be sent to India to serve as part of the garrison. In the 19th century, ensuring the security of India was seen as the primary role for the British Army and the home battalions were expected to provide regular trained drafts for their Indian partners. This meant the forces based in Britain were constantly short of men, being forced to send their best soldiers abroad each year. The lack of men and the negative impact it had upon training was cited as a serious issue by several witnesses who addressed the *Elgin Commission*.³

However, in spite of these limitations, it is generally argued amongst historians that by 1914 the infantry of the British Army had reached a peak of excellence. Edward Spiers noted that the infantry had reached a standard "...never before achieved in the British Army and unequalled among the contemporary armies in Europe".⁴ Clearly, in achieving this level of skill, the army had undergone a considerable improvement from the Victorian force that had been embarrassed by the Boers.

It is the aim of this chapter to demonstrate that the seeds of the vital tactical reforms that allowed the British Expeditionary Force of 1914 to be such an elite army were laid during and immediately after the Boer War. Although acknowledging that the experience of combat in South Africa was somewhat ambiguous and open to debate, this chapter will argue that key lessons of modern warfare painfully learned on the veldt were absorbed into the tactical framework of the infantry.

Martin Van Creveld has suggested that the years 1830 – 1945 marked an epoch of war he terms "The Age of Systems". He argues that the growth of battlefield firepower in this era produced three key tactical reactions in armies worldwide, in particular in the infantry branch. In an attempt to increase the survivability of infantry in the face of modern weapons, there was a much greater appreciation of cover, including the use field entrenchments and earthworks to protect troops from incoming fire. Allied to this was a recourse to camouflage and concealment as opposed to colourful uniforms and bright equipment, making the individual infantryman a less distinct target than in previous eras. Units also began to adopt dispersed formations, moving away from shoulder to shoulder formations and vastly reducing the number of soldiers per square metre of front line.⁵ While armies around the world were gradually moving towards these tactical concepts in the years prior to the First World War, the experience of conflict in South Africa gave the British Army an important head start. All the tactical

³ *Report of His Majesty's Commissioners Appointed to Inquire into the Military Preparations and Other Matters Connected with the War in South Africa*, (London, H.M.S.O 1903) Vol.1, Q4104, p.173; Vol.2, Q16235, p.251 (Hereafter referred to as *Elgin Commission*)

⁴ Edward Spiers, "Reforming the Infantry of the Line 1900-1914" in *Army Historical Research* LIX (238) (1981) p.94

⁵ Van Creveld, M., *Technology and War: From 2000 B.C to the Present* (London, Collier Macmillian, 1989) pp.171 - 174

precepts suggested by Van Creveld were identified as important to victory during the Boer War and would provide the British Army with a vital framework upon which to build the most elite infantry in Europe in the period prior to 1914.

The process of reform was not an easy one for the army and the South African experience was not the only source of tactical thought. Contrary ideas vied for attention in the 1902 – 1914 period, and some officers came to regard the peculiar conditions of South Africa as a poor guide for future conflict. Ideas that gained precedence were not always progressive or positive. Influences from the continental armies of France and Germany fed into the existing tactical debates and while their influence was felt less in the infantry than in the artillery and cavalry, they remained a factor in British thought throughout the period. As well as the Boer War, the Russo-Japanese War 1904-05 caught the eye of militaries worldwide and in some cases its perceived lessons ran contrary to those of the Boer War. Furthermore, it has also been suggested by Tim Travers and Martin Samuels that preconceived ideas and traditional attitudes amongst some of the British Army's leadership placed a brake on reforms and in some cases introduced retrograde tactical changes.⁶ Although the Boer War started the process of tactical reform, these other factors played a role in shaping the final tactical synthesis that emerged in 1914, and their influence will be discussed and analysed during the course of the chapter.

This chapter will therefore analyse the tactical development of the infantry of the British Army during the period 1902 – 1914. Taking the experience of the Boer War as a base, it will argue that the infantry learned three crucial lessons in the 1899 – 1902 period which allowed it to develop into the elite arm that fought so well in the early months of World War 1. These were greater formation extension to cross the fireswept zone, a need for improvement in marksmanship and fire tactics, and finally greater interest in the use of the earthworks and entrenchments. These subheadings will provide a framework for analysis, demonstrating that although the tactical lessons of the South African war were neither entirely self evident nor unchallenged, they gave the British infantry an important head start in the tactics that were to become necessary on 20th century battlefields.

Extension and Crossing the Fire Swept Zone

The Boer War was a conflict that contained several unpleasant tactical surprises for the British Army, but arguably the increased deadliness of small arms fire should not have been one of them. From the American Civil War 1861 – 65 onwards, there had been a steady increase in the effectiveness of

⁶ Travers, Tim, *The Killing Ground: The British Army, the Western Front and the Emergence of Modern War 1900-1918* (Barnsley, Pen & Sword, 2003), Samuels, Martin, *Command or Control? Command, Training and Tactics in British and German Armies 1888-1918* (London, Frank Cass, 1995)

infantry firearms, with the Wars of German Unification and the Russo-Turkish War 1877-78 providing further evidence of the power of modern rifles. Infantry firepower had also revealed its considerable potential in the earlier campaigns in South Africa against the Boers. In particular, the famous Boer victory at Majuba Hill in 1881 had shown the effectiveness of good weapons even in the hands of untrained militia, and should have shown that the Boers as a military force deserved to be taken seriously. Prior to the debacle at Majuba the British had fought a number of small campaigns against the Boers, and although these had generally ended in victory, the British participants had been quick to note the unusual characteristics and skills of the average Boer. For example, in 1848 a small force led by Sir Harry Smith, a Peninsula War and Northwest Frontier veteran, had put down a Boer rebellion at Boomplaats. Although victorious, Smith described the skirmish as one of the most severe he had witnessed, and declared of the Boer shooting “a more rapid, fierce and well-directed fire I have never seen maintained.”⁷ However, as has already been discussed, little was learned from these experiences outside of individual units.

Given that the Boers had already demonstrated the effectiveness of their firepower and ability to use skirmish tactics in earlier wars against the British, there was no reason to underestimate them in 1899. Indeed, in some ways they were more formidable than ever before. A large-scale government-spending programme had rearmed the Boers from 1895 onwards with the latest magazine loading Mauser rifles. These were excellent weapons, capable of long-range rapid fire on flat trajectories. Crucially, they also used smokeless powder that not only increased accuracy, but also meant that firing the weapon did not give away the marksman’s position. The potential effect of smokeless powder in the hands of an opposing force had been recognised as posing new difficulties as early as 1892, but the failure to disseminate new tactical ideas within the Victorian army meant that these warnings had had little impact on the British Army as a whole by the time of the Boer War.⁸

In fact, despite previous evidence of the formidable military capabilities of the Boers, initial assessments of them were often contemptuous. On the eve of the war, pro-imperialists in the *Economist* and the *Spectator* dismissed the Boers as “stock breeders of the lowest type”, no more than “a rough mob of good marksmen”.⁹ The British Intelligence Department largely agreed in its secret report, “Military Notes on the Dutch Republics of South Africa”. It was felt that the decline of game on the veldt had reduced their once famous accuracy with the rifle and overall they were assessed to be inferior to the men who had achieved victory at Majuba in 1881. The report expected the Boers to deploy little more than a raiding strategy against British possessions in South Africa, and offered the

⁷ Amery, L.S. (ed.), *The Times History of the War in South Africa* (London, Sampson Low Marston and Company 1900-1909) Vol.2, p.59 (hereafter *Times History*)

⁸ Lieutenant Colonel Alsager Pollock, “Smokeless Powder and Entrenchments” in *The Journal of the Royal United Services Institute* 47(2) 1903 p.806

⁹ Quoted in Nasson, Bill, *The South African War 1899-1902* (London, Arnold 1999) p.69

opinion “It appears certain that, after [one] serious defeat, they would be too deficient in discipline and organization to make any further real stand.”¹⁰

These early views on the weakness of the Boers were quickly dispelled by the opening engagements and especially the defeats of “Black Week” in December 1899. While opinion on individual Boer marksmanship in this period varied considerably, from those who felt it was as good as before, to others who felt it was “shockingly bad”, it was almost universally agreed that modern rifle firepower was now capable of causing casualties at extremely long ranges, while at closer distances the sheer volume of fire was as significant as its accuracy, and made further advance exceptionally difficult.¹¹ In addition, smokeless ammunition made reconnaissance work more challenging than ever before and created an apparently ‘empty’ battlefield that placed a considerable psychological strain upon soldiers. For the infantry, the most pressing tactical problem was how best to cross this barren, fire swept zone to get into assaulting range of an entrenched and largely invisible enemy. An anonymous officer offered a description of the changed nature of war:

War is not what it was when armies manoeuvred in sight of each other, and when 600 yards was the limit of artillery fire. I smile when I think of the face of a man who is bungling an attempt to bite off the end of a cartridge, with one eye cocked all the time on the gentleman advancing at the double to avenge the death of “poor Bill”. That was old-time fighting, and some sport about it too. Now Bill is killed at 2400 yards, and Bill’s pal hasn’t an idea where the shot was fired. That is modern warfare...¹²

To officers and men who had cut their teeth in colonial actions against poorly armed tribal foes, the new conditions of warfare were strikingly different. Colonel A.W. Thorneycroft, a veteran of various small colonial engagements throughout Africa, noted at first his men were apt to disregard the potential effects of Boer fire as past combat experience had shown them that the “...Kaffir fires over your head as a rule.”¹³ In stark contrast, an officer who fought at the first engagement of the war, the Battle of Talana Hill 20th October 1899, left an account of the difficulty of facing modern rifle fire:

I don’t suppose I am ever likely to go through a more awful fire than broke out from the Boer line as we dashed forward. The ground in front of me was literally rising in dust from the bullets, and the din echoing between the hill and the wood below and among the rocks from

¹⁰ TNA WO 33/154 Military Notes on the Dutch Republics of South Africa pp.49-52

¹¹ For example, see *Elgin Commission*, Vol.2 Q: 15483, p. 212 and Q: 16594, p.264 for views that British shooting was better than that of the Boers.

¹² ‘Not A Staff Officer’, “Some Remarks on Recent Changes” in *United Service Magazine*, October 1904, p.47

¹³ *Elgin Commission*, Vol.2, Q12441, p. 19

the incessant fire of the Mausers seemed to blend with every other sound into a long drawn-out hideous roar.... the whole ground we had already covered was strewn with bodies...¹⁴

In the face of such intense defensive fire, attacks were problematical. Although study of the recent European wars had hinted at the difficulties inherent in attacking a determined, well-armed defender, this was the first practical experience the British had had facing modern firepower on a large scale, and it was soon found that the kind of close order assault tactics that had been so valuable in the Sudan and other colonial wars were redundant in South Africa. For example, at the Battle of Enslin¹⁵ 25th November 1899, Lord Methuen described the attack of the Naval Brigade in his despatches. "The fire here was very heavy, and the Naval Brigade suffered severely, keeping in too close formation... [not] taking advantage of cover."¹⁶ Although the attack achieved its objective, the brigade lost virtually all its petty officers and NCOs killed or wounded, and suffered an overall casualty rate of 44%.¹⁷ Even after this example, some officers still persisted with the use of close order. At the Battle of Colenso 15th December 1899, Major General Hart, a believer in keeping his men "well in hand" advanced his 5th Brigade towards the Boer positions in quarter columns, even going so far as to countermand an order from the commanding officer of one of his battalions to open into extended order.¹⁸ The results were predictable, and not even the poetic words of Arthur Conan Doyle could disguise the fact this was a serious tactical blunder as he described the attack of the brigade in the following terms: "the four regiments clubbed into one, with all military organisation rapidly disappearing, and nothing left but their gallant spirit...."¹⁹ An additional limiting factor for the British Army was that in the early stages of the war it lacked enough cavalry to be able to outflank Boer positions, and the infantry were thus forced into making relatively narrow frontal attacks. Even at best these attacks simply forced the Boers back to another defensive position with relatively few casualties compared to those suffered by the British. Lord Methuen's campaign to relieve the siege of Kimberly typified this kind of fighting, being described by a contemporary as "...an honest, straightforward British march up to a row of waiting rifles."²⁰

While shoulder-to-shoulder formations had worked against colonial opposition that lacked modern weapons, existing British tactical thinking was not entirely ignorant of the threat of improved firepower, and close order formations were not formally recommended for use against well-armed opposition. The 1896 edition of *Infantry Drill* had suggested extending from close order column

¹⁴ Quoted in Amery, *Times History*, Vol.2, p.164

¹⁵ Also known as the Battle of Graspan.

¹⁶ TNA WO 108/237 Lord Methuen's Despatch, 26th November 1899

¹⁷ Amery, *Times History*, Vol.2, pp.338-339

¹⁸ Pakenham, Thomas, *The Boer War* (London, Abacus, 1992) p.225, Maurice, Frederick (ed.) *History of the War in South Africa* (Uckfield, Naval & Military Press 2007) Vol.2, pp.353-35 (Hereafter referred to as *Official History*)

¹⁹ Conan Doyle, Arthur, *The Great Boer War* (London, Smith, Elder Co. 1900), p.93

²⁰ Phillips, L.M, *With Rimington* (Lonon, Edward Arnold 1902) p.8

formations at a range of approximately half a mile from the enemy, although naturally this round figure was open to interpretation and was not always followed.²¹ Additionally, the lack of doctrine in the British army and profusion of tactical ideas based on individual regimental experience meant tactics and formations adopted for the attack varied considerably. For example, a junior officer stationed with a British regiment in India noted that his battalion assault training in July 1899 consisted of the attacking line being separated into “tight little bunches of about twenty men each” advancing in a line to within 200 yards of the enemy position. While this was extension of a sort, it was hopelessly inadequate, the officer recording in his diary “I could not believe it was serious practice for modern warfare. We should all have been wiped out.”²²

Nevertheless, the ideas of extension in *Infantry Drill* 1896 were a move in the right tactical direction and those officers who had prior experience of such formations, usually gained in fighting on the North West Frontier, were able to make use of them against the Boers. For example, while Major-General Sir Penn-Symons has been justifiably criticised for his strategic errors in the early stages of the war, it is often overlooked that his infantry initially advanced against the Boers at Talana Hill extended to 10 paces per man.²³ The most prominent proponent of extension in the early stages of the Boer War was Ian Hamilton, a veteran of Majuba and the Tirah campaign, who was known for his innovative ideas on the nature of future warfare.²⁴ While stationed at Ladysmith prior to the outbreak of hostilities he had begun training his brigade in some of the tactical ideas he had picked up on the North West Frontier. When called upon to commit his troops at the Battle of Elandslaagte 21st October 1899, the three lead companies of the 1st Devons attacked with a very large frontal extension of somewhere between 700 and 1000 yards, with 450 yards between each successive line. The troops advanced forward by rushes, one section firing to cover the advance of the next.²⁵ These infantry tactics and formations at Elandslaagte helped contribute to a notable local victory for the British at relatively low cost and hinted at the future direction of tactical reform.

After the initial disasters of “Black Week” and the appointment of Lord Roberts to overall command of British forces in South Africa, formal tactical guidance regarding extension was rapidly introduced. One of Roberts’s first actions was to issue a memo entitled ‘Notes for Guidance’ which set out a number of tactical tips for the three major service arms based on the experience of the opening months of the war. These notes confirmed many of Hamilton’s earlier tactical ideas, suggesting abandonment of close order formations between 1500 and 1800 yards from the enemy, being prepared to have an

²¹ For example, see Lieutenant Colonel E. Gunter (trans.) “A German View of Tactics in the Boer War” in *The Journal of the Royal United Services Institute* 46(1) 1902, pp.801-802

²² Meinertzhagen, R., *Army Diary 1899-1926* (Edinburgh, Oliver & Boyd 1960) pp.15-16

²³ Maurice, *Official History*, Vol.2, p.131

²⁴ See for example Hamilton, Ian, *The Fighting of the Future* (London, K. Paul, Trench & Co. 1885)

²⁵ Lee, John, *A Soldier’s Life: General Sir Ian Hamilton 1853 – 1947* (Basingstoke, Macmillan 2000) p.49, Amery, *Times History*, Vol.2, p.184

extension of between 6 and 8 paces per man and making maximum use of cover.²⁶ In practice, extension and dispersion of formations went well beyond these guidelines on a number of occasions. For example, at the Battle of Diamond Hill 11 – 12th June 1900, British infantry was noted as having an extension radius of 30 yards per man, and in many actions between 10 and 20 yards was not uncommon.²⁷ In nature, these tactical precepts offered little that was entirely new, and their value against well-armed enemies had been hinted at by writing in the aftermath of the Tirah campaign.²⁸ However, whereas the earlier campaign had been fought in a wild corner of India purely by forces stationed in the subcontinent, the Boer War was fought by virtually the entire regular army, plus numerous colonial and volunteer formations. In the past, the influence of colonial wars had been limited outside of the immediate participants, but the scale of the war in South Africa ensured that the impact of its tactical lessons was far wider than any previous imperial war.

The primary advantage of extension was that it provided a small, individual target that was less vulnerable to firepower than a mass of men in a tight formation, but it also had other benefits. The first and arguably most important of these secondary benefits was that it allowed men to use their discretion and take advantage of cover during the advance. Taking cover during the attack was a controversial subject within the pre-Boer War British Army and it was not widely practised in peacetime. The army was proud of its reputation for ‘dash’ and there was a spirit of resistance to any tactical method that threatened to reduce this much-prized attribute. Foreign observers were particularly surprised at this disdain of cover, Captain Slocum of the United States Army writing, “The disregard of the British officer and soldier of all corps of ordinary precautions for his own safety is astonishing.”²⁹ However, the experience of combat began to erode this attitude, and in the face of modern firepower, the need to make the most of cover to avoid heavy casualties soon became paramount. Lord Roberts’s circular memo had insisted that “Every advantage should be taken of cover” but lack of pre-war training meant that infantry instead had to learn by hard experience the potential value of taking shelter.³⁰ For inexperienced units this could lead to almost comical errors. Major-General Colville commented on his wartime experiences of such problems:

At first officers and men were very stupid about taking cover. I have seen men halted on a rise in full view of the enemy when a few paces forward or backward would have placed them

²⁶ TNA WO 105/40 “Notes for Guidance in South African Warfare”

²⁷ *Elgin Commission*, Vol.2, Q13247, p.66; Q16772, p.273

²⁸ Major General Sir W.F. Gatacre, “A Few Notes on the Characteristics of Hill Fighting in India” in *Journal of the Royal United Services Institute* 43 (1899) p.1072

²⁹ Quoted in Captain Jonkheer, “Observation on the War in South Africa” in *Journal of the Royal United Services Institute* 47(2) 1903, p. 50

³⁰ TNA WO 105-40 “Notes for Guidance in South African Warfare”

in shelter, the reason being that to have taken this step would have broken the dressing of the line.³¹

Nevertheless, veteran troops soon became adept at taking cover when in action.³² For example, the infantry of Buller's Natal Army, after experiencing a rough learning curve in early battles such as Colenso and Spion Kop, became particularly noted for their skill in taking up good positions.³³ At the Battle of Vaal Krantz Neville Lyttleton remembered that his men had taken up positions "very cleverly" and suffered only relatively minor casualties, even though the Boer fire was so severe that one officer thought it was the wind howling through nearby undergrowth instead of bullets.³⁴

Dispersion facilitated the usage of cover, but there would inevitably come a time when it was necessary to cross a stretch of open ground to reach the next point of shelter. In the Boer War, this was most readily achieved by a system of rushes. Once again, peacetime training had not prepared the British Army well for this tactical requirement, and in the early stages of the war it was under-utilised. Observing early operations on the Tulega, Captain Slocum commented "The infantry never make rushes in their attacks, but march erect and calmly forward."³⁵ However, as the war continued, an appreciation of rush tactics soon developed. Typically led by an officer, a small group of men under cover would rise and sprint a short distance to the next piece of shelter. While simple in theory, rushes were harder to utilise in practice. Ian Hamilton's infantry had achieved success with rushes at the Battle of Elaandslaagte, but a German volunteer who fought for the Boers remembered that as the war dragged on, veteran commandos began to learn how to predict when a rush was about to take place by the sudden cessation of fire that usually preceded it. This gave the Boers time to aim and the veteran recalled "Onsets such as these were almost always shattered... a few seconds were frequently enough to decide the matter."³⁶ How long to maintain a rush was also an issue open to debate. The Boer veteran considered that the British rushes had been too long and given the burghers many opportunities to take aim and inflict damage, but German observers felt that the British rushes were too short and did not gain sufficient ground for the risk entailed.³⁷ In the aftermath of the war, Sir William Gatacre summed up the ideal infantry rush as to be aimed for in training to be:

³¹ *Elgin Commission*, Vol.2, Q16974, p.286

³² *Ibid*, Vol.2, Q15694, p.226

³³ *Ibid*, Vol.2, Q17468, p.313

³⁴ Lyttleton, Neville, *Eighty Years; Soldiering, Politics, Games* (London, Hodder Stoughton, 1927) p. 220

³⁵ Jonkheer, "Observation on the War in South Africa" in *JRUSI*, 47(2) 1903, p. 50

³⁶ Unknown Translator, "Military Observations of the War in South Africa" in *Journal of the Royal United Services Institute* 46(1) 1902, p.357

³⁷ *Ibid* p.357, Lt. Colonel E. Gunter (translator), "A German view of British Tactics in the Boer War" in *Journal of the Royal United Services Institute* 46(1) 1902, p.804

...sudden, short, rapid and irregular in interval and strength, otherwise the defenders get many chances; each rush must be locally supported by comrades' fire till the runners have settled down ready to support the next group in turn.³⁸

A corollary of the increased use of cover and concealment was a necessity for camouflage. The British Army had already adopted khaki as its standard overseas uniform colour, but bright buttons and other prominently visible items of kit held the potential to give away a man's position, and as the war went on these were darkened or removed entirely.³⁹ Officers, often forced to scorn cover to set a courageous example for the men, were particularly prime targets and attrition amongst them was extremely high. By late October 1899, the Natal Field Force had lost 73 officers and 3 commanding officers, proportionally twice as many as the men.⁴⁰ A contemporary source estimated the overall casualties for the men typically ranged between 3 – 6%, while casualties amongst officers were 12 – 30%.⁴¹ While a major cause of these casualties was the need of officers to demonstrate personal courage and lead their men by example, the carrying of swords and wearing of rank insignia were factors seen as attracting fire. One British observer said the wearing of the sword "...was quickly recognised as a sort of legend 'Here I am an officer, shoot me' and (was) laid aside with colours and other relics of the past."⁴² Officers in Lord Roberts's army carried rifles instead of swords, and by the time of Spion Kop the officers of Buller's Natal Field Force had removed all badges of rank to avoid being a visible target for enemy sharpshooters.⁴³

Although they faced a difficult learning curve, by the end of the war in South Africa, the infantry of the British Army had learned more about facing modern firepower than any other army in the world. An army that had initially been wedded to a profusion of tactical ideas, many of them inappropriate for the conditions, had emerged as a highly skilled fighting force which had overcome a unique and determined enemy in difficult conditions. Whereas in the early battles of the war, British infantry had sometimes attacked in narrow close formation and suffered as a consequence, by the latter stages they were capable of advancing in an extended order, taking advantage of available cover and able to maintain forward momentum in a manner which had seemed impossible in the early months of the conflict. While the fighting in South Africa was undoubtedly unusual, in terms of both atmospheric conditions and the unique military culture of the Boers, the lessons of concealment and dispersion learned by the British in this conflict placed them considerably in advance of European rivals.

³⁸ *Elgin Commission*, Vol.2, Q16772, p.273

³⁹ Pakenham, *Boer War*, p.312, Symons, Julian, *Buller's Campaign* (London, Crescent Press, 1963) p.222

⁴⁰ Pakenham, *Boer War*, p.151

⁴¹ Lieutenant Field Marshal Gustavus Ratzenhoffer, "A Retrospect of the War in South Africa" in *Journal of the Royal United Services Institute* 45(1) 1901, p.41

⁴² Colonel Sir Howard Vincent, "Lessons of the War: Personal Observations and Impressions of the Forces and Military Establishments Now In South Africa" in *Journal of the Royal United Services Institute* 44(1) 1900, p.635

⁴³ Pakenham, *Boer War*, p.312 Symons, *Buller's Campaign*, p.222

British peacetime training soon changed to reflect the lessons of the Boer War and the memory of the conflict remained paramount in the minds of many throughout the army. Concealment, cover, extension and a respect of firepower were emphasised in infantry tactics. At Aldershot, officers were criticised for remaining mounted while too close to the firing line, while infantry were berated for bunching too closely during the attack and in one case being accompanied by a brass band.⁴⁴ Infantry were expected to take up an extension of 6 – 20 yards per man during the attack, and in his “Memorandum on the Training of 1st Army Corps 1905”, Sir John French summed up the post-war attitude towards training and tactics when he stated “Personally, I believe as strongly as ever in the wide extension of Infantry in the attack... The instinct of all infantry soldiers should be to take advantage of cover, and to avoid open ground.”⁴⁵ The influence of the conflict could also linger in more subtle ways, as a training inspection report on 1st Division at Aldershot in 1904 revealed when it referred to hills as ‘kopjes’ after the South African terminology.⁴⁶ In the immediate post war years the training and tactics of the infantry were acknowledged to have improved considerably. Even staunch critics such as Leo Amery gave praise to the improvements, attributing much of the development to the presence of Boer War veterans amongst both officers and men.⁴⁷

However, dissenting voices on the value of the war were raised even in its immediate aftermath. The unusual military characteristics of the Boers along with the uniquely clear atmosphere of South Africa, which allowed for shooting at extremely long ranges, were both cited as rendering the lessons of the war as lacking value or even being misleading. Sir Henry Colville summed up the views of many of the doubters:

...it should be borne in mind that the conditions of warfare in South Africa were wholly exceptional, and it is unlikely that they will ever be reproduced. I do not think, therefore, that our tactics in South Africa, successful as they eventually were, have by any means solved the difficult question of how to reach the enemy’s position in the face of modern smokeless magazine fire.⁴⁸

While a return to close order shoulder-to-shoulder formations was never seriously advocated, a number of officers questioned the lessons of extension derived from South Africa. Those who challenged the value of the experience focused particularly upon the peculiar characteristics of the enemy. The Boers had a unique military culture that placed little importance upon holding positions to the last extremity, preferring to use their mobility and the vastness of the country to trade space for

⁴⁴ TNA WO 27/502 3rd Division Inspection 24th – 29th July 1905

⁴⁵ TNA WO 27/504 “Tactical Points” (Undated); TNA WO 27/503 Memorandum on the Training of 1st Army Corps 1905 31st January 1905

⁴⁶ TNA WO 27/501 1st Division Defensive Work 27th June 1904

⁴⁷ Amery, Leo, *The Problem of the Army* (London, E. Arnold, 1903) p. 46

⁴⁸ *Elgin Commission*, Vol.2, Q16974, p.288

time if the British advance could not be stopped by rifle fire. The Boers lacked bayonets, and generally showed little inclination to counter attack the British during the advance or to try and reclaim lost ground, instead preferring to offer a passive, firepower based defence from good positions. Additionally, while strong against frontal attacks, their numerical inferiority and the scale of South African geography made them weak against turning movements. At battles such as Spion Kop, the British attacked on a very narrow front and were punished, but under the leadership of Lord Roberts they subsequently demonstrated a tendency to attack on a very broad front to pin the Boers in place, while separate forces turned their flanks.⁴⁹ These broad fronts were particularly well facilitated by large infantry extensions, and the peculiar characteristics of the Boers reduced their potential weaknesses, particularly with regard to the threat of being counterattacked while dispersed. As the Boers showed little inclination to resist close assault if the enemy were able to establish themselves at close range, it was relatively uncommon that the British needed to undertake the difficult process of reforming from wide extension into a thicker line which would carry weight in both the firefight and the subsequent charge. This further encouraged the use of a single, heavily extended but thin line that would be able to advance with minimal casualties, rather than a somewhat more densely packed line that would find it easier to assault. Lord Roberts stated that “Throughout the war the Boers were determined that there should be no hand to hand fighting” but observers at both home and abroad noted this would not be the case in Europe, where positions would be defended much more tenaciously and the cost to break through would be high.⁵⁰ F.N. Maude summed up these views in 1902:

Against an enemy known to be adverse to counter-attacks, the extreme extension we adopted was justified by results, but it would be a very unsound generalisation to assume that similar extensions would answer against an active European drilled army...⁵¹

Some continental observers further criticised the British Army on the grounds that wide extension and flank attacks were an illogical reaction to fear of casualties. A German observer rejected these tactics, arguing:

The English... endeavoured to obtain decisive victories without serious loss. The first law of war is that lives of soldiers must be sacrificed without hesitation when the necessity arises.⁵²

⁴⁹ *Elgin Commission*, Vol.2, Q16121, p.246

⁵⁰ TNA WO 105-40 Lord Roberts comments on “The Boer War Through German Glasses”; Captain Cecil Battine, “The Offensive versus the Defensive in the Tactics of To-day” in *Journal of the Royal United Services Institute* 47(1) 1903, p.668

⁵¹ Lt. Colonel F.N. Maude, “Continental Versus South African Tactics: A Comparison and Reply to Some Critics” in *Journal of the Royal United Services Institute* 46(1) 1902, p.324

⁵² TNA WO 105-40 Lord Roberts comments on “The Boer War Through German Glasses”

Such radical views achieved little support in the years immediately following the Boer War, when European conflicts were still far from the minds of most British Army officers. However, from 1905 onwards the value of large extension began to be called into question. The core of this problem was a tactical paradox. Modern infantry fire, effective at around 1500 yards or more, meant that dense formations were impractical for closing with the enemy and instead, wide extension was necessary. However, while extension would allow the men to close with the enemy, it did not provide enough strength at a point to actually overwhelm the foe, either with firepower or via a close combat assault. Indeed, for fire superiority to be gained over the foe, it was widely believed a ratio of at least one man per yard was necessary.⁵³ How to cross the ground to get into a good fire position without suffering prohibitive casualties, and then have enough strength to win the fire fight and final assault was a paradox the British Army struggled with throughout the period. *Combined Training* 1905 identified the problem without offering any real solutions. While noting that in the infantry attack "...it is superiority of fire that renders the decision of the conflict possible", it went on to state that against a well trained enemy, within 800 yards of their position "the ground over which the attack must pass is so closely swept by a sheet of lead as to be well-nigh impassable to troops in any other formation than lines of skirmishers..."⁵⁴ Ultimately, the solution reached was a compromise. Under this system, infantry advanced in extended formations as far as possible. Once forced to ground and involved in the fire fight, the firing line would be built up by supports and reserves advancing forward by rushes, covered by the fire of the original line. Therefore, the line only became dense at decisive range to ensure overwhelming infantry firepower.⁵⁵

The Russo-Japanese War highlighted the need to solve this tactical conundrum. The Japanese were repeatedly forced to frontally assault Russian earthworks, and although often repelled with heavy losses, in contrast to the Boer War, bayonet charges and hand-to-hand combat occurred on a surprisingly frequent basis.⁵⁶ Initially, the Japanese favoured old-fashioned Prussian style tactics, assaulting in relatively dense lines preceded by a swarm of skirmishers. A French observer commented upon these formations, noting, "The losses were so ruinous that never again was this method of attack employed."⁵⁷ British observer Ian Hamilton also noted the terrible cost of using German assault tactics, and was pleased to be told that "...the Japanese are discarding German attack formations, and approximating more to those employed by us in South Africa."⁵⁸ By the time of the Battle of Mukden 20th February – 10th March 1905, a Japanese officer reported that he was doubling

⁵³ TNA WO 27/505 "Some Considerations Connected with formations of Infantry in Attack and Defence" p.7

⁵⁴ War Office *Combined Training* 1905 (London, H.M.S.O 1905) pp.100-101

⁵⁵ Major W.D Bird, "Infantry Fire Tactics" in *Journal of the Royal United Services Institute* 49(2) 1905, p.1176

⁵⁶ TNA WO 33/350 Reports from Manchuria, p.73

⁵⁷ General De Negrier, "Some Lessons of the Russo-Japanese War" in *Journal of the Royal United Services Institute* 50(2) 1906, p.912

⁵⁸ Hamilton, Ian, *A Staff Officer's Scrap Book During the Russo-Japanese War* (London, E. Arnold, 1908) Vol.1, p.307

the extension of his battalion from the distance set in pre-war guidelines.⁵⁹ Hamilton was also impressed with the speed with which the Japanese were able to use rushes to cross open ground, but attributed this success partially to the dismal quality of Russian marksmanship.⁶⁰ Conversely, some German writers saw the ultimate success of Japanese frontal attacks, regardless of their cost in lives, as a vindication that the British had lacked the moral strength to absorb casualties making frontal assaults in South Africa.⁶¹ The profusion of contradictory tactical lessons regarding infantry assault in the Russo-Japanese War did little to clarify the issue of extension.⁶² Indeed, although the Japanese had moved towards using very wide extensions by 1905, in subsequent years their infantry training manuals turned against this and gradually formations increased in density.⁶³ There was abundant evidence that crossing the fire swept zone was now even harder than in the Boer War, but equally the success of Japanese attacks against Russian earthworks suggested that close assault remained possible.

The successful Japanese frontal assaults and the local strength required to launch them contributed to the debate on the value of Boer War infantry tactics. Ideas that had been formed during the experience of combat in South Africa came under scrutiny during the following years, notably the arming of officers with infantry rifles. This had been a controversial topic for some time and had often been raised for Army Council consideration, but it was not until 1908 it was officially decided to abandon the rifle and reinstate the sword as the personal weapon for officers.⁶⁴ More importantly, formations also came under critical examination in the aftermath of the Russo-Japanese War. Even amongst reformers such as Ian Hamilton, doubts began to be expressed that extended formations were being taken too far. While Hamilton considered wide extensions “probably the best of the many good ideas derived from the South Africa War” he cautioned that even these tactics “will not bear being turned into a fetish.”⁶⁵ While serving as Inspector General of Forces, Sir John French echoed similar views on extension, arguing “I think it is well worth serious consideration whether we are not overdoing the so-called lessons of the South African War as applied to possible European war against masses of trained soldiers.”⁶⁶

⁵⁹ Major Mitake, “The Infantry Battle Front” in *Journal of the Royal United Services Institute* 51(1) 1907, pp.329-330

⁶⁰ Hamilton, *Scrap Book*, Vol.1 p.307

⁶¹ Captain Ashley W. Barret, “The Q Club Prize Essay: Lessons to be Learned by Regimental Officers from the Russo-Japanese War” in *Journal of the Royal United Services Institute* 51(1) 1907, p.815-816

⁶² Keith Neilsen, “That Dangerous and Difficult Enterprise: British Military Thinking and the Russo-Japanese War” in *War and Society*, 9(2), 1991, p.31

⁶³ TNA WO 33/425 Reports on Foreign Militaries: The Japanese Army

⁶⁴ TNA WO 163/13 Army Council Précis 1908, Précis 385, pp.6, 73-74

⁶⁵ Lt. General Sir Ian Hamilton, “The Training of Troops During 1906” in *Journal of the Royal United Services Institute* 50(2) 1906, p.1522

⁶⁶ TNA WO 163/13 Inspector General of Forces Report for 1907, p.80 [Hereafter referred to as IGF Report]

The tactical paradox of forming a strong firing line without suffering annihilating casualties beforehand still remained. Complaints were made that the infantry were able to advance splendidly in training, but that there was no attempt at any stage in the attack to close up a firing line at a depth greater than “three or four paces” per man.⁶⁷ The reaction against extension reached its peak in an article that appeared in the General Staff supported publication *Army Review* in 1912. Criticising British assault training, the author, Brigadier-General F.C. Carter, felt in large part the flaws were due to “The fact that the fetish of ‘over-extension’ which, after the early disaster of the South African War, was set up as a God in the Temple of Mars, still claims some devotees among our senior officers.”⁶⁸ Urging closer formations, the article concluded:

We must harden our hearts, as our forefathers did of old to the heavy losses that will occur... a steady advance of strong, disciplined and brave men, prepared to suffer losses, to use their bayonets with effect and to snatch victory from the jaws of death.⁶⁹

While something of an extreme viewpoint, the article expressed tactical opinions that were not uncommon amongst continental armies or those who admired them. The Boer War had had limited impact on formations of armies in Europe, and the Russo-Japanese War, with its bloody but successful attacks, seemed to be a vindication of traditional attack tactics to many in the German and French armies. Ironically, the author of the *Army Review* article cited as a supporting example work by F.N Maude, the principal proponent of the pro-Prussian school in the Victorian era army. As in the Victorian era, the British Army grappled with influences from both the colonial experience of the Boer War and the ideas of continental thinkers. However, whereas in the 19th century the British had a great deal to learn about facing firepower as the Prussians had done in the Franco-Prussian War, by the Edwardian period it was the British Army who had the practical experience.

As early as 1903, a British observer of German manoeuvres had been surprised at their dense attacking lines, noting “I pointed out the losses would be enormous. I was told they were prepared to lose, as they lost at Gravelotte...”⁷⁰ While there was a strand of thought within the British Army that a war against mass armies on the continent would require mass tactics, it was also well understood that the small numbers available to the British Expeditionary Force meant that any attempt to fight a continental conscript army on a like for like basis was unlikely to succeed.⁷¹ A call to absorb casualties in mass attacks on the German or French model was not in keeping with the military or

⁶⁷ TNA WO 163/14 IGF Report for 1908, p.169

⁶⁸ Brigadier General F.C Carter, “Our Failings in the Assault” in *Army Review* (3)1912, p. 99

⁶⁹ Ibid, p.104

⁷⁰ Major General Sir A.E Turner, “Corps Manoeuvres of the German XIV Army Corps 1903” in *United Service Magazine* (March 1904) p.629

⁷¹ Major G.H.J Rooke, “Shielded Infantry and the Decisive Frontal Attack” in *Journal of the Royal United Services Institute* 58(1) 1914, pp. 771-773

political goals of the elite but small British Expeditionary Force. One anonymous officer summed up the problem, noting the British Army was "...bound for political, financial and national reasons, to economise life, and to win our campaigns with the fewest possible casualties."⁷² Therefore, in terms of reducing extension, the European influence was limited beyond a small number of adherents, much as the Prussian influence in the Victorian era army had been.⁷³

Despite a number of calls for a counter reformation following the Russo-Japanese War, and the urging of men such as Carter to follow the continental example, the British Army did not abandon extension, although it was reduced from the standard adopted after the Boer War. In 1908 Ian Hamilton reported that extension in Southern Command had been reduced to a level slightly above that adopted by the Japanese in the war in the Far East, giving attacks "greater cohesion, flexibility, and driving power". However, he cautioned, "... the reaction against the exaggerated extensions adopted during and immediately after the South African War has gone far enough" and felt "...it is better for formations to be too open than too concentrated."⁷⁴ By 1912 and 1913, reports from the Inspector General of Forces were also cautionary regarding overly dense advancing lines. The 1913 report noted;

I desire to emphasize very strongly a marked tendency in our present day infantry tactics to ignore the effect of fire during movement. Large bodies are frequently seen advancing under effective rifle and artillery fire bunched together in a manner that would entail very heavy casualties... attacks in this manner cannot hope to succeed...⁷⁵

The Army Council acknowledged this complaint and suggested it would be highlighted in a forthcoming revision of *Infantry Training*, although the outbreak of war prevented the issue of a new manual.⁷⁶ The thorny problem of how to create a strong line from an extended formation to win fire superiority remained a contentious issue that was never entirely settled in the years prior to the First World War. In *Infantry Training* 1911 the paradox remained, although there was now a greater emphasis on supporting fire from friendly infantry, machine guns and artillery to facilitate the forward movement of supports and reformation for the final fire fight.⁷⁷ Additionally, the use of cover and short but rapid rushes to gain good positions were discussed at some length. Unlike extension, the use of these tactical movements had never been seriously challenged in the post-Boer War years, and they remained a fundamental part of British infantry tactics.

⁷² 'Solando', "The Decisive Range" in *United Service Magazine* (June 1904) p. 296

⁷³ Towle, Phillip, "The Influence of the Russo-Japanese War on British Military and Naval Thought 1904-1914" PhD, University of London, 1973, pp.17-18

⁷⁴ General Sir Ian Hamilton, "Remarks by General Sir Ian Hamilton Commander in Chief Southern Command, On the Training of the Troops During 1907" in *Journal of the Royal United Services Institute* 52(1) 1908, pp.89-90

⁷⁵ TNA WO 163/20 IGF Report for 1913, p. 334

⁷⁶ TNA WO 163/20 Army Council Comment on IFG Report, p.334

⁷⁷ War Office *Infantry Training 1911* (London, H.M.S.O, 1911) pp.111-115

Despite the controversy over extension and its relative value, by the eve of the First World War, British infantry remained skilful at crossing the fire swept zone. Problems persisted, especially with regard to the compromise solution of thickening the line at the decisive moment, but nevertheless the necessity for dispersion, emphasised by the rough handling of close order formations in the Boer War, remained a valuable and enduring lesson. Once war had broken out in Europe, the tactics for crossing ground that had worked in South Africa were often cited as good examples for the current conflict. For example, it is interesting that *Notes from the Front*, a handbook of tactical advice printed and issued for the army after the opening months of hostilities in 1914, once again reiterated the value of extension, stating a formation with “8 or 10 paces intervals (is thought to be) the least vulnerable.”⁷⁸ Additionally, in a September 1914 memorandum, Brigadier General Johnnie Gough called for increased usage of dispersed “loose and irregular elastic formations” as employed in South Africa.⁷⁹

Compared to the French and German armies who still made use of deep, close order formations in the early part of the First World War, British extension tactics were considerably advanced. Combined with the lessons of the value of cover and the importance of rapid, irregular rushes from point to point, the British infantry was arguably the best prepared in Europe to face modern rifle fire on a tactical level. A French observer of the 1913 manoeuvres felt that British attacks were “carried out in an excellent manner...Infantry makes wonderful use of the ground, advances, as a rule, by short rushes and always at the double, and almost invariably fires from the lying down position.”⁸⁰ The core principles of extension, cover and rushes realised in the Boer War were a logical and appropriate tactical response to an extended fire swept zone, and despite debate and controversy, the British Army still remembered the value of these important lessons at the outbreak of war in 1914.

Marksmanship and fire tactics

One of the most remarked upon aspects of combat against the Boers throughout the 19th century was the effectiveness of the marksmanship possessed by the average burgher. The good shooting of Boers armed only with muskets had surprised participants in early combats in the 1840s, and by the time of Majuba in 1881 it was further improved by far better weaponry. While there was a distinct lack of consensus on the overall quality of Boer marksmanship in 1899, the increased range and sheer volume of fire that could be produced by magazine rifles made even a poor marksman a potentially dangerous foe, especially at close range. Additionally, the use of smokeless powder meant it was difficult for the British to return the fire, as there was no telltale puff of smoke to give away the firer’s position. For British troops used to facing brave but reckless tribal opposition charging across the open, this was a rude awakening. Neville Lyttelton described the startling change in combat experience.

⁷⁸ War Office, *Notes from the Front Part II* (London, H.M.S.O, 1914) p.13

⁷⁹ TNA WO 95/588 Gough Memorandum 27th September 1914

⁸⁰ Commandant De Thomasson, “The British Army Exercise of 1913” in *Army Review* 6(1914) p.149

Few people have seen two battles in succession in such startling contrast as Omdurman and Colenso. In the first, 50,000 fanatics streamed across the open regardless of cover to certain death, while at Colenso I never saw a Boer all day till the battle was over, and it was our men who were the victims.⁸¹

As previously discussed, British infantry in the Victorian period were poorly trained in marksmanship and were highly dependent upon volley fire, a method that had proved its value in various wars against primitively armed opposition. Even against the Boers, at longer ranges volleys had a certain degree of suppressing effect and some tactical value. For example, at the Battle of Elandslaagte, the advance of the Devons was made in rushes with supporting sections delivering volleys to keep down the fire of the Boers.⁸² However, within 600 yards and at closer ranges, the individual fire of the Boers, often termed 'snap shooting', proved far more effective than the cumbersome volleys of the British. The volley was of limited use in inflicting casualties upon a dispersed, well concealed enemy in a good position or in earthworks, while the extension and use of cover necessary for survival at close ranges meant it was difficult for officers to organise a volley, as their voices would often be lost in the din of fighting and to expose themselves from behind cover invited death.⁸³ In these types of conditions the more skilful individual shots of the Boers held a clear advantage over the British. One officer remembered of this type of fighting "... where they [the Boers] beat us so completely was when we got onto kopjes at close quarters, say, a few hundred yards, a man could not put his finger up over a rock or ridge without being hit."⁸⁴

A related problem was that the prevalence of volleys had created a very strict system of infantry fire control, which emphasised holding fire for as long as possible during the advance. In 1899 it was expected that the infantry would not open fire until they reached approximately 500 yards from the enemy's position.⁸⁵ While this had some justification against poorly armed opposition, the Boers with modern rifles were able to inflict casualties at ranges more than triple this distance. The result was that in the early stages of the war, British advances were often forced to ground at 900 – 1000 yards from the enemy without the attackers having fired a shot.⁸⁶ Many early attacks took this course, with the British attempting to press onwards against increasingly heavy fire, suffering casualties and ultimately being forced to ground before they even began the firefight in earnest.⁸⁷ Gaining infantry

⁸¹ Lyttleton, *Eighty Years*, p.212

⁸² Jackson, M., *The Record of a Regiment of the Line: Being a Regimental History of the 1st Battalion Devonshire Regiment During the Boer War 1899-1902* (London, Hutchinson Co. 1908) p.21

⁸³ Unknown Translator, "Military Observations of the War in South Africa" in *JRUSI* 46(1) 1902, p.356

⁸⁴ *Elgin Commission*, Vol.1, Q6859, p.294

⁸⁵ Grierson, James, *Scarlet into Khaki: The British Army on the Eve of the Boer War* (London, Greenhill 1988 Reprint) p.137

⁸⁶ Unknown Translator, "Lessons of the South African and Chinese Wars" in *Journal of the Royal United Services Institute* 45(1) 1901, p.292

⁸⁷ Gunter (translator), "A German view of British Tactics in the Boer War" in *JRUSI* 46(1) 1902, pp.803-804

fire superiority from such a weak initial position was virtually impossible. Additionally, fire discipline and pre-war training encouraged firing at obvious, visible targets, a weakness the Boers exploited. Major General Sir William Gatacre recalled “On several occasions I saw our men wasting their ammunition at purposely prepared vacant trenches on kopjes, when the men who were doing the mischief were under cover in front or to a flank.”⁸⁸

The volley was generally unsuited for the nature of combat in the Boer War, but the standard of individual marksmanship possessed by the average British soldier varied immensely. While several officers suggested it was as good as, if not better than that of the Boers when shooting at static objects at known ranges, when engaging fleeting targets at unknown distances it suffered in comparison. Firing at a well-concealed enemy was difficult enough, but a further problem was the fact the unusual atmospheric conditions of South Africa made judging the distance difficult, and even veteran officers were known to make enormous errors of judgement in this regard.⁸⁹ Furthermore, being largely trained in collective fire meant individual soldiers were often dependent upon an officer to call out the distance to the target for them, and were thus poor at setting their own sights without instruction.⁹⁰ An anonymous Boer remembered capturing some British infantry, only to find:

“Of 35 men whom we took prisoners, after they had fired at us up to 350 paces, not a single one had got his sight correct. Most of them had kept their sights fixed at 800 and 850 yards, because no order to change them had been given.”⁹¹

The failure to correct rifle sights as the range changed was a persistent problem, especially prevalent amongst inexperienced or poorly trained men. For example, the ability of the Boers to make close range mounted attacks during the later stages of the war was attributed by some officers to the inability of the British soldier to correct his sights to deal with a rapidly closing target.⁹²

An additional problem for the British was the presence of large numbers of reservists in the ranks to bring battalions up to full strength. Although these men had been trained in marksmanship while part of the army, it was noted, “There is no regular system of the Reservists in the country having annual practice in rifle shooting” and their accuracy was considered to be of a somewhat lower standard until they had had a chance to practice.⁹³ A further difficulty faced by the reservists was that some 25,000 Lee-Enfields that were issued to them at the outbreak of war had defective sights, which shot

⁸⁸ *Elgin Commission*, Vol.2, Q16772, p.272

⁸⁹ *Elgin Commission*, Vol.2, Q15483, p.212; Prof. G. Forbes “Experiences in South African with a new Range Finder” in *Journal of the Royal United Services Institute* 46(2), 1902, p.1389

⁹⁰ *Elgin Commission*, Vol.2, Q15697, p.226

⁹¹ Quoted in Major Balck, “Lessons of the Boer War and the Battle Workings of the Three Arms” in *Journal of the Royal United Services Institute*, 48(2), 1904, p.1276

⁹² Wessels, Andre (ed.), *Lord Roberts and the War in South Africa* (Stroud, Army Records Society, 2000) pp.203-204

⁹³ *Elgin Commission*, Vol.2, Q16210, p.249

approximately 18 inches to the right at 500 yards and over. Henry Brackenbury described this as “an awful blow”.⁹⁴

Nevertheless, despite these problems and difficulties faced by the British Army, the power of modern rifles in skilful hands was a lesson that was brought home in the strongest terms. An individual was now able to produce a tremendous rate of fire, and a small group of determined, skilful men in a good position could prove a formidable foe. For example, at the Battle of Bergendaal 27th August 1900, a group of Boers had taken up a strong position on a kopje, delivering punishing fire upon the attacking British. Neville Lyttelton, a participant at the battle, related “It was so continuous that I thought there were quite 300 men in the kopje, but I doubt if there were 100.”⁹⁵ On another occasion, prior to the Battle of Spion Kop, a British advance found itself under persistent and harassing sniper fire. Two battalions with artillery support were deployed to flush out the Boers, only to discover the fire had been coming from just three well-concealed burghers.⁹⁶

For the infantry, the most important tactical development of the Boer War was realising the power and effectiveness of these smokeless magazine rifles. The impressive firepower that could now be developed by even small numbers of skilled men hinted at the future. Ian Hamilton caught the mood of post-War reformers when he suggested that attacks would now be based upon the determination and skill of a handful of men, who were able to work their way across the final 500 yards into good positions. He argued “...if... the enemy’s line is penetrated, even by a few men, the power of their modern armament will make their flanking fire so demoralising and effective that the position will either be abandoned forthwith, or so much attention will be concentrated on the intruders that an assault may become practicable all along the line.”⁹⁷ Concluding this strand of thought, Hamilton laid down the necessary requirement for these tactics of the future, suggesting, “We want an army composed of men each of whom can be trusted to make the fullest possible use of the finest and more delicately adjusted rifle that can be made.”⁹⁸

Improving marksmanship clearly required a vast overhaul of the pre-war musketry regulations and training routine. The Victorian era army had assigned a miserly quantity of ammunition for rifle practice and had focussed almost entirely upon shooting at static targets at known distances. In the aftermath of the Boer War, there was some call for marksmanship training to take place at long range with troops forced to estimate the distance themselves and set their sights accordingly. This method was considered an effective way to simulate the South African experience, but to undertake such a

⁹⁴ *Elgin Commission*, Vol.1, Q1779, p.86

⁹⁵ Lyttelton, *Eighty Years*, pp.238-239

⁹⁶ Stone, Jay & Schmidl, E.A, *The Boer War and Military Reforms* (Lanham, University Press of America 1988) p.80

⁹⁷ *Elgin Commission*, Vol.2, Q13941, p.108

⁹⁸ *Ibid*, Q13941, p.108

system required very long target ranges and complex training.⁹⁹ The ranges of infantry fire in South Africa had been enormous, with effective fire at 2,000 yards being considered common by some, but this was in part due to the exceptionally clear atmosphere of the country.¹⁰⁰ Other officers felt that these ranges were abnormal and that scoring hits at such a distance was more luck than judgement.¹⁰¹ Ultimately, the issue was settled by Lord Roberts, who saw the crucial area of fire being at medium to close range rather than at great distances.¹⁰² 'Effective' rifle range was determined as being between 1,400 to 600 yards, while less than 600 yards was considered 'decisive'.¹⁰³ It was at this latter range that Lord Roberts considered Boer shooting to have been most dominant over the British.¹⁰⁴

Debate continued on the ranges at which the men should practice, and a 1904 committee from 1st Army Corps suggested that men should be trained to fire accurately at ranges up to 1,000 yards. However, the School of Musketry rejected this view, arguing that "careful concentration of collective fire" rather than a handful of specially trained individuals were best at achieving results at long range.¹⁰⁵ Trials showed that it took an expert marksman in favourable conditions an average of 12 rounds to hit a dummy in the prone position at 600 yards, and therefore this distance was considered the maximum limit of useful individual fire.¹⁰⁶ Musketry training emphasised rapidity and accuracy in this 'decisive' 600 yard range throughout the period up to the outbreak of the First World War.¹⁰⁷

However, the process of improving marksmanship took time and was not without difficulties. Initially, lack of shooting ranges led to considerable overcrowding at those that were available, causing practice to sometimes be rushed and inefficient. Ammunition supply also became an issue. To improve the marksmanship of the men, the cartridge allowance for practice purposes was vastly increased, with a figure of 300 rounds per man being approved in 1903.¹⁰⁸ However, in 1906 the allowance of ammunition for training was reduced as surplus supplies from the Boer War were running out, and to maintain the existing level of supply would cost between £70,000 and £80,000 per annum. Although several members of the Army Council thought a reduction was feasible and even potentially beneficial, the move was almost unanimously opposed by the general officers commanding on the grounds it would be detrimental to training.¹⁰⁹ Nevertheless, financial considerations won out and the ammunition allowance was reduced to 250 rounds per man. However,

⁹⁹ W.A Baillie-Grohman, "Marksmanship, Old and New" in *Nineteenth Century* (May 1900) pp.756-7

¹⁰⁰ TNA WO 108/272 Extracts from Reports of Officers Commanding Units in South Africa 1899-1901: Rifles, Carbines and Small Arm Ammunition. Rifle reports, report no.102

¹⁰¹ *Elgin Commission*, Vol.1, Q6859, p.294

¹⁰² National Army Museum Roberts Mss., R/122/4/325 "Army Order" 1st September 1902

¹⁰³ *Combined Training 1905*, p.100

¹⁰⁴ *Elgin Commission*, Vol.2, Q10426, p.439

¹⁰⁵ TNA WO 163/9 Army Council Précis 1904; Précis 113, p.281

¹⁰⁶ *Ibid.* p.281

¹⁰⁷ War Office *Musketry Regulations Part 1, 1909 [1914 Reissue]* (London, H.M.S.O 1914) pp.254-255

¹⁰⁸ TNA WO 163/12 Army Council 1907; Précis 359, p.154

¹⁰⁹ *Ibid* pp.154-155. The only general officer commanding who did not dissent was G.O.C North China.

even with these limitations, the amount of ammunition and effort expended upon marksmanship training was still considerably more than on the continent or in India.

Despite these difficulties, the quality of individual musketry and the seriousness that was now attached to it was the most striking change in the British infantry in the aftermath of the Boer War. In 1904, an anonymous officer noted with satisfaction:

“The day has now quite gone by when the officer at the firing point brought down with him to the range, as a necessary part of his equipment, an easy-chair and a novel, and the officer in the butts if he hadn’t a novel went to sleep... greater interest is now shown by everybody... the keenness displayed by all ranks is as great as could be desired.”¹¹⁰

The old system of firing at static targets at fixed ranges was replaced with a far more challenging system of concealed and ‘surprise’ targets that could be pulled up and then collapsed at short notice. Adapting to these new training methods took time, and early experiments with the method could produce embarrassing results. During an early attempt at using surprise targets in training during 1899, at least one company was so surprised by the sudden appearance of a 20 second target that they failed to get a single shot off.¹¹¹ Nevertheless, these moving mechanical targets proved a great success and huge improvement on the old methods. At Aldershot in 1909, a musketry course was laid out that included “...every sort of appearing and disappearing target...” and dummy attacks were made against a selection of them as part of competitive training.¹¹² This gave practice at meeting counter attacks and aiming at active service style targets, and was considered by Aldershot commander Horace Smith-Dorrien to be “an unqualified success.”¹¹³

As well as making the individual officer and soldier a good marksman, making effective tactical use of infantry fire was a keynote of British assault tactics in the years immediately following the Boer War. *Combined Training* 1905 noted that fire action had increased greatly as a result of modern technology, going on to state:

“All movements on the battlefield have but one end in view, the development of fire in greater volume and more effectively directed than that of the opposing force; and although the

¹¹⁰ ‘K’, “Suggestions for the Improvement of the Annual Course of Musketry” in *United Service Magazine* (June 1904) p.300

¹¹¹ Comment on Captain H.R Mead, “Notes on Musketry Training of Troops” in *Journal of the Royal United Services Institute* 42(1) 1899, p.254

¹¹² Smith-Dorrien, Horace, *Memories of Forty-Eight Years’ Service* (London, John Murray 1925) p.359

¹¹³ *Ibid* p.359

bayonet still plays an important part, it is superiority of fire that renders the decision of the conflict possible.”¹¹⁴

As previously discussed, gaining this superiority of fire posed a problem regarding the best type of formation to adopt during the infantry attack. British musketry training was aimed at producing skilful individual marksman, capable of accurate and rapid fire at up to 600 yards. However, a series of complex experiments at the School of Musketry discovered the unpalatable fact that between 400 – 500 yards range, a dense firing line of average and indifferent shots possessed considerably greater firepower than an extended line of first class marksmen. While the extended line achieved a higher proportion of hits to rounds fired, the sheer volume of fire from the dense line typically inflicted overwhelming casualties on their extended opponents within a minute of fire being opened.¹¹⁵

This tactical problem highlighted the important fact that it was not enough to simply make men talented individual shots. Instead, it was crucial that high levels of individual skill were allied with an effective system of fire tactics that encouraged and allowed movement. Widespread use of earthworks meant that simply outshooting the enemy was not enough. This issue had been well illustrated at several actions in the Boer War, most noticeably during the Battle of Paardeberg 18th – 27th February 1900. After an initial day of uncoordinated and costly infantry attacks, the British had settled down to what was practically a siege of Cronje’s laager. Although the British held fire superiority throughout most of the battle, the Boers suffered few casualties and were only compelled to surrender by the combination of starvation and the presence of Canadian infantry at just 65 yards distance from their trenches. The difficulty, if not impossibility, of using infantry firepower alone to move a determined enemy from a good position was further emphasised in the Russo-Japanese War.¹¹⁶

With these experiences in mind, British infantry fire tactics essentially consisted of the two tightly connected elements of fire and movement. Both were mutually supporting within the infantry attack. Covering fire from one section of the line would allow other parts to advance. Once the advancing troops had taken up fire positions of their own, they would provide covering fire to allow the rest of the line to follow up. In this manner, the attackers would advance in bounds, with troops only moving when their comrades could provide covering fire. Ultimately, it was intended that the advancing infantry could take up progressively stronger fire positions and win superiority over the enemy. This concept was to be the keynote of fire tactics for the British throughout the 1902 – 1914 period.

¹¹⁴ *Combined Training 1905*, p.100

¹¹⁵ Major W.D Bird, “Infantry Fire Tactics” in *Journal of the Royal United Services Institute*, 49(2) 1905, p.1177

¹¹⁶ Unknown Translator, “Infantry Combat in Russo-Japanese War: Observations and Personal Reminiscences of the Commandant of a Russian Company” in *Journal of the Royal United Services Institute* 50(2) 1906, pp.1169-75

Although writing in 1912, an infantry officer summed up the attitude towards the issue throughout the era when he wrote “Fire and movement... must never be dissociated in peace training and must be regarded as complementary in war.”¹¹⁷

Much like the efforts to improve individual marksmanship, replacing the old system of fire tactics that had relied on close control and volleys took considerable time. However, progress was helped and supported by the work done at the School of Musketry at Hythe. By 1907 it was noted with satisfaction that not only was the programme of instruction at Hythe excellent, but also that an interchange of ideas between the School of Musketry and the army practice camps was now becoming apparent.¹¹⁸ Nevertheless, translating this teaching into practice could sometimes be difficult. For example in 1910 there was considerable concern that volley fire appeared to be making a return within certain units. An alarmed Inspector General noted that while in some cases officers who still favoured old-fashioned methods were to blame, in most cases it resulted from a misinterpretation of teaching at Hythe, which suggested it was sometimes useful to employ a simultaneous burst of rapid fire but had somehow had its teaching “...twisted into the word ‘fire’ leading to an order to press the trigger several times in succession”.¹¹⁹ Steps were quickly taken at Hythe to correct this retrograde development. In 1911, despite the fact that much work and discussion on the nature of fire and movement had been undertaken, translating this into practice was harder and little physical improvement was evident. Officers were criticised for failing to “...recognise that musketry and tactics are synonymous and cannot be separated... Hythe teaching is so clear and definite on these points that it is incredible how little attention seems to be paid to them.”¹²⁰ Yet from this low point, steady developments in fire tactics were observed in subsequent years. In 1912 and 1913 improvements were evident, and it was noted with satisfaction that the use of fire to facilitate movement was very well understood in all battalions by 1913.¹²¹

A number of historians have taken a critical view of British infantry fire tactics on the eve of the First World War.¹²² Tim Travers has suggested that the army was forgetting the lessons of the Boer War and was instead focussing on psychological solutions to practical tactical problems, downgrading the value and effect of firepower and placing renewed emphasis on sheer determination to overcome it. Martin Samuels has most recently taken up this theme, arguing that the British General Staff were not only ignorant regarding fire superiority, but also downright hostile towards the concept.¹²³ Samuels argues that by 1914 the British Army was reliant upon the assault power of its infantry, with minimal

¹¹⁷ Captain L.H. Tudor, “Collective Fire” in *Journal of the Royal United Services Institute* 56(2) 1912, p.1023

¹¹⁸ TNA WO 163/13 IGF Report for 1907, p.84

¹¹⁹ TNA WO 163/16 IGF Report for 1910, pp.247 -248

¹²⁰ TNA WO 163/17 IGF Report for 1911, pp.513-14

¹²¹ TNA WO 163/20 IGF Report for 1913, p.384

¹²² For example: Travers, *The Killing Ground*, p.67, Samuels, *Command or Control?*, pp. 98-103

¹²³ Samuels, *Command or Control?*, p.102

firepower available. There is some evidence to support the idea that there was something of a reaction against firepower in infantry tactics of this era. A notable change was the subtle rewording in the discussion of the attack in *Field Service Regulations* 1909 from the original in *Combined Training* 1905. Whereas *Combined Training* had stated, “superiority of fire makes the decision possible”, *Field Service Regulations* noted “The climax of the infantry attack is the assault, which is made possible by superiority of fire.”¹²⁴ Additionally, Samuels’s interpretation draws upon the opinions expressed by officers such as Aylmer Haldane and Lancelot Kiggell at General Staff conferences of the era. Kiggell in particular saw the bayonet as still being the principal arbiter of combat and was disparaging on the value of firepower.¹²⁵

However, as John Bourne and Gary Sheffield have pointed out, the interpretation of the British Army as tactically backward and ‘professionally somnolent’ does not seem compatible with the tremendous internal reform and tactical improvements that developed in the aftermath of the Boer War.¹²⁶ Samuels draws much evidence from the de-emphasis on firepower which was raised in discussion at the General Staff conferences, but this should not be taken as an indication that the ideas permeated down to lower levels in the army and became doctrine. As has been demonstrated by John Gooch, the British General Staff was a recent innovation in the Edwardian period and took time to develop its organisation into a truly efficient body. Therefore it was not in a position to disseminate much doctrine or create a true ‘school of thought’ within the army.¹²⁷ Indeed, as discussed in previous chapters, the entire concept of doctrine was regarded with a certain amount of suspicion,. There is limited evidence to suggest General Staff ideas translated into training or tactics at lower levels as a mere matter of course. For example, reports from the Inspector General of Forces continued to place very high value on fire tactics throughout the period in question, offering strong criticism when they were not up to standard.¹²⁸

Perhaps the most important rebuttal to Samuels’s interpretation can be found in the opening engagements of the First World War. Although Samuels has lavish praise for the qualities of German infantry compared to the crudeness of the British, at the Battle of Mons 24th August 1914, British infantry fire inflicted severe casualties upon their German opponents. British participants were amazed at the dense, old-fashioned German attack formations, with one British soldier describing them as ‘insane’.¹²⁹ Walter Bloem, a German officer at the battle, related an experience leading an

¹²⁴ *Combined Training* 1905, p.100; War Office *Field Service Regulations Part 1: Operations* 1909 (London, H.M.S.O) p.144

¹²⁵ Report of a Conference of General Staff Officers at Staff College, Camberley 17-20 January 1910, p.28

¹²⁶ Bourne, John & Sheffield, Gary (eds.), *Douglas Haig: War Diaries and Letters 1914-1918* (London, Weidenfeld & Nicolson, 2005) p.16

¹²⁷ Gooch, John, *The Plans of War: The General Staff And British Military Strategy c.1900-1914* (London, Routledge & Kegan Paul, 1974) pp.27-28, 77 - 82

¹²⁸ For example, TNA WO 163/16 IGF Report for 1910, p. 247

¹²⁹ Quoted in Terraine, John, *Mons: The Retreat to Victory* (Ware, Wordsworth Editions, 2000) p.83

infantry attack against the British. After a difficult advance by rushes to within 150 yards of the British line, leaving behind them a meadow “dotted with little grey heaps”, the Germans noted British infantry fire had virtually ceased. Bloem planned to launch a final 30-yard long rush, but in a tactic similar to those used by the Boers, the British were waiting for his men to break cover. Bloem recounted,

The enemy must have been waiting for this moment to get us all together at close range, for immediately the line rose it was as if the hounds of hell had been loosed at us, barking, hammering as a mass of lead swept in amongst us... Voluntarily and in many cases involuntarily we all collapsed flat on the grass as if swept by a scythe.¹³⁰

Mons has been described as a battle dominated by the infantry, and in this regard British troops were clearly superior.¹³¹ Indeed, as previously discussed the early battles of the British Expeditionary Force have been identified as ‘soldiers’ battles’, in which higher leadership was unable to exercise much influence and the course of the fighting often devolved on junior leaders and their men.¹³² In these conflicts, although seriously outnumbered and in a difficult strategic position, British infantry acquitted itself extremely well against their German opponents. In the light of the experiences of the early battles of 1914, Samuels’s criticisms of British infantry tactics seem to be incorrect. The Boers had taught the British hard lessons regarding the power of accurate rifle fire and the necessity for extended formations in 1899, but to the credit of the British Army these lessons had not been ignored, and instead formed a linchpin of infantry tactics. Their value was emphasised in summer 1914, when it was the Germans who were forced to experience firsthand the problems of attacking skilful marksmen in good positions.

However, while the Boer War taught valuable lessons regarding the necessity of improving individual marksmanship and fire tactics, its influence upon the development of the machine gun was largely negative. Numerous historians have cited the miserly allocation of just two machine guns per battalion in the British infantry of 1914 as representing a serious material weakness.¹³³ The official history of the Great War suggests that the impressive rate of fire possessed by the individual infantryman was a substitute for the lack of machine guns, which had been neglected for financial reasons.¹³⁴

¹³⁰ Bloem, Walter, *The Advance from Mons 1914: The Experiences of a German Infantry Officer* (Solihull, Hellion 2004) p. 43

¹³¹ Terraine, *Mons*, p.83, p.85

¹³² Bourne, J.M., *Britain and the Great War 1914-1918* (London, Arnold, 1989) p. 28

¹³³ Ellis, John, *The Social History of the Machine Gun* (London, Pimlico, 1993) pp.16-17, Samuels, *Command or Control?*, pp.100-101, Travers, *Killing Ground*, pp.62-65

¹³⁴ Edmonds, James (ed.), *History of the Great War: Military Operations France and Belgium*, (London, H.M.S.O, 1922), Vol.2, p.463

Perhaps the money may have been more readily available for machine guns had their performance in South Africa been more impressive. Machine guns had proved extremely valuable in struggles against tribal foes, allowing a handful of Europeans to inflict crippling casualties upon the brave but crudely armed tribesmen. However, when committed to action against a well-armed and carefully concealed opponent in South Africa, results were disappointing. The Boers fought from behind cover and refused to provide the kind of massed target that the Dervishes had done in the Sudan. How best to employ machine guns in the Boer War was a tactical problem to which no definite answer was ever found. Some officers favoured pushing the guns right into the infantry firing line, where targets would be more visible and friendly troops would be encouraged by the sound of the weapon in action.¹³⁵ Yet this tactic was deprecated by others, who felt bringing the gun so far forward made it too easy for the Boers to silence it with either rifle or artillery fire. For example, at the Battle of Modder River, the machine gun of the 1st Scots Guards was brought in to close range action, but was knocked out in less than five minutes by Boer pom-pom fire.¹³⁶ Reliability was also an issue, with jams and breakdowns frequent throughout the campaign. One officer who fought at Modder River reported his battalion's gun had jammed an incredible 29 times during the course of the engagement.¹³⁷ Lack of technical training within the gun crews meant that repairing mechanical problems in the field was difficult and sometimes even impossible.¹³⁸

Views on the value and practicality of the machine gun remained varied throughout the war. Problems of where to deploy the weapon in an advance, its relative vulnerability and the lack of good targets generally presented by the Boers meant that many officers saw it as more useful in defence than in attack.¹³⁹ A handful of adherents emerged from South Africa, one officer stating somewhat prophetically, "The effects cannot be exaggerated, and if understood tactically the machine gun dominates the whole question of attack in the future... neglect of proper tactical use of machine guns, was the most important lesson of the war", but opinions such as these were in a distinct minority.¹⁴⁰ A more common view was that while the gun was valuable in both attack and defence against enemies who operated in dense masses, it was only useful in defence against opposition who made use of cover and entrenchment.¹⁴¹

The Russo-Japanese War tended to confirm rather than dispel these ideas. The Russians had made the most of machine guns in the early stages of the war, and their effectiveness when deployed in a

¹³⁵ TNA WO 108/267 Extracts from Reports of Officers Commanding Units in South Africa 1899-1901: Machine Guns. Mounted Infantry report #1

¹³⁶ TNA WO 108/267 Infantry report #50

¹³⁷ TNA WO 108/267 Infantry report #92

¹³⁸ Captain R.G. Clarke, "Machine Guns" in *Army Review* (4)1913, p.99

¹³⁹ TNA WO 108/267 For example: Mounted Infantry reports: #8, #14, Infantry reports: #6, #49, #87

¹⁴⁰ TNA WO 108/267 Infantry report #32

¹⁴¹ WO 108/267 Infantry reports #75

defensive role was undoubtedly great.¹⁴² The Japanese subsequently adopted the weapon and employed it in an offensive role, where it proved useful in suppressing Russian trenches during attacks. However, its employment in this manner did little to shake the tactical orthodoxy surrounding the weapon. Commenting on his wartime experiences, a Japanese officer noted, “For the commander to use the gun as a substitute for infantry fire shows ignorance of its nature” and considered the ammunition consumption was so great that to use it purely to suppress an enemy trench was wasteful, with artillery being capable of doing the same job more efficiently and at much longer range.¹⁴³ Nevertheless, armies on the continent, particularly Germany, took an increased interest in the weapon and began moving towards increasing their establishments of machine guns.¹⁴⁴

However, in Britain no increase took place despite the efforts of a number of officers to emphasise the value of the weapon and encourage its use. Apathy reigned regarding machine guns in the immediate aftermath of the Boer War, and a 1901 committee assembled to assess the value and organisation of machine guns and pom-pom guns in the future ignored its remit and omitted discussion of the machine gun altogether.¹⁴⁵ After a brief spell of interest and allocation to the cavalry, pom-pom guns¹⁴⁶ soon fell from favour, being unwieldy and relatively ineffective at inflicting casualties. By 1905, discussion of the pom-pom as anything other than a range finding device had ceased and the weapons themselves were apparently withdrawn. Conversely, machine guns remained in service with infantry and cavalry, but training in the weapon lagged behind European armies for several years. In Britain, nine months were allocated to train a machine gunner, whereas 3 years were assigned to do the same job on the continent.¹⁴⁷ In 1910, one officer summed up the problem of the gun’s poor reputation:

No doubt this is due very largely to the discredit into which the Maxim gun fell in South Africa... they were perfectly useless and had to be abandoned; had we known as much about it as we do now different tactics would have prevailed.... The way the guns are handled on manoeuvres, the way they are attacked, leads one to believe that people take very little

¹⁴² Lt. Col. W.D. Bird (translator), “A Company Of Russian Machine Guns at the Battle of Liao-Yang” in *Journal of the Royal United Services Institute* 50(2) 1906, pp.1502-1503

¹⁴³ Captain F. Takenouchii, “The Tactical Employment of Machine Guns with Infantry in Attack and Defence” in *Journal of the Royal United Services Institute* 51(1) 1907, pp.452-453

¹⁴⁴ Captain R.V.K. Applin, “Machine Guns in Our Own and Other Armies” in *Journal of the Royal United Services Institute* 54(1) 1910, pp.41-45

¹⁴⁵ TNA WO 32/9029 Committee on Pom-Poms and Machine Guns

¹⁴⁶ The 37mm Maxim-Nordernfelt gun, better known as the pom-pom, was the first modern example of an autocannon, firing small 1-pound explosive shells at a rate of up to 200 rounds a minute. The pom-pom name was derived from the distinctive sound of the gun firing. Although manufactured in Britain, the British Army had rejected the chance to purchase any of the guns prior to the war. Conversely, the Boers had purchased a number of pom-pom guns, and these weapons caused a considerable stir in the early battles of the war.

¹⁴⁷ Comment on Applin, “Machine Guns” in *JRUSI*, 54(1) 1910, p.63

account of them. At present half the mistakes in the training at manoeuvres are due to no-one knowing where the machine gun is, and certainly not caring.¹⁴⁸

Training did begin to show improvement from 1910 onwards, with experiments taking place involving overhead fire and organising machine guns into brigades.¹⁴⁹ However, despite proposals from the School of Musketry to increase the quota of weapons, including the addition of light machine guns to infantry battalions, growing interest in the weapon came too late to ensure senior officers accepted these ideas. John Ellis has been highly critical of this decision, arguing the rejection of machine guns was based upon anachronistic attitudes in the officer class and were not a rational response to either technical or financial considerations.¹⁵⁰ However, Shelford Bidwell and Dominick Graham have convincingly challenged this interpretation, arguing that financial considerations played a far larger role than Ellis allows. The British Army had only recently rearmed its artillery at considerable expense and had also adopted a new short Lee-Enfield rifle. Additionally, discussions were underway to change the calibre of the infantry rifle, which would entail further costs. The Liberal government was committed to reducing the cost of the army where possible and in such circumstances to undertake a large-scale rearmament of the machine gun branch was financially impractical even though there was evidence that Britain was lagging behind European rivals in this regard.¹⁵¹ Perhaps if the machine gun had had a better reputation this might have encouraged its development and expenditure upon it, but as has been shown it performed poorly in South Africa and its role in the Russo-Japanese War seemed to confirm the idea that it was best employed as a weapon of defence. Unfortunately for the British infantry, the Boer War experience was largely negative in this regard and did little to encourage the adoption of a weapon that would come to be crucial in the First World War.

Nevertheless, despite the limited allocation of machine guns, the Boer War did provide valuable lessons on the necessity for the improvement of infantry marksmanship and firepower. In spite of early difficulties and occasional setbacks, by the eve of the First World War considerable progress in fire tactics had been made. Infantry tactics in combination with field artillery had also improved and will be discussed in depth in subsequent chapters. The British Army had come a long way from the force that was forced to deliver clumsy and inaccurate volleys against well-concealed Boers in 1899. By 1914 every infantryman was expected to be capable of delivering 15 aimed shots per minute when required, and in practice many men exceeded this expectation and could deliver 20 or more.¹⁵² In this

¹⁴⁸ Ibid, p.63

¹⁴⁹ TNA WO 163/16 IGF report for 1910, p.246; TNA WO 163/18 IGF Report for 1911 p. 516; TNA WO 163/19 IGF Report for 1912, p.624

¹⁵⁰ Ellis, *Social History of the Machine Gun*, p.70

¹⁵¹ Bidwell and Graham, *Firepower*, pp.53-56

¹⁵² Pridham, C.H.B, *Superiority of Fire : A Short History of Rifles and Machine Guns* (Hutchinson, London 1945) pp.56-57

respect the British regular infantryman had the best standard of marksmanship in Europe, and the effectiveness of British rifle fire would become famous during the early clashes of the First World War. The emphasis on training accurate marksmanship against an the enemy within 600 yards range, which had been urged by Lord Roberts after the Boer War and supported by the School of Musketry, was vindicated during early First World War engagements. *Notes from the Front* reported that “A short field of fire (500 yards or less) has been found sufficient to check a German infantry attack”, and successful defences were mounted at even shorter distances.¹⁵³ The improvement and success of British marksmanship in 1914 can be directly attributed to the lessons that had been learned so painfully against the Boers in South Africa.

Entrenchment

The use of earthworks and entrenchments was not an entirely unknown art to the British Army on the eve of the Boer War. More advanced colonial opposition in Egypt had made use of trenches and Britain’s tribal foes sometimes sought recourse to the employment of hill forts and other methods of primitive fortification. However, the Boers were to provide a rude awakening with the complexity and the depth of their trenches, which provided excellent protection against both British artillery and rifle fire. Furthermore, by making use of large amounts of native labour, the Boers were able to construct complex entrenchments in a relatively short timeframe, while the burghers who were to man them remained fresh. A veteran of the British 6th Division recalled that “Bitter experience has shown us that to give the Boer time was to ensure an elaborate system of trenches and obstacles being added to his defensive assets.”¹⁵⁴ The shelter these earthworks provided was extremely impressive. For example, the trenches dug by the Boers at the Battle of Paardeberg provided such cover that casualties amongst the burghers were relatively low despite being under the regular bombardment of field and heavy artillery for over a week. Inspecting the trenches after the surrender of Cronje’s laager, Lord Roberts commented, “They had constructed their trenches in an extraordinarily skilful manner. Deep narrow trenches, with each side well hollowed out, in which they got complete shelter from shellfire, and if their food could have lasted, they might have defied this large force for some time to come...”¹⁵⁵

As well as providing excellent protection from incoming fire, Boer trenches were often extremely well concealed. Combined with smokeless powder, this made locating the enemy before and during an attack a considerable challenge. At the Battle of Colenso, a pre-battle bombardment had failed to inflict any damage on the Boers or even locate their main position. Most famously of all, at the Battle

¹⁵³ *Notes from the Front*, p.2; Bidwell and Graham, *Firepower*, p.67

¹⁵⁴ Major J.E Carter, “From Enslin to Bloemfontein with the 6th Division” in *Journal of the Royal United Services Institute* 44(2) 1900, p.146

¹⁵⁵ Wessels (ed.), *Lord Roberts and the War in South Africa 1899-1902*, p. 59

of Magersfontein the Boers had decided against placing their trenches on the summit of the kopje, and instead sited them at the base. This unexpected move allowed the flat trajectory Boer rifles an excellent field of fire across the open plain in front of them.¹⁵⁶ Equally, the tactic completely deceived the British under the leadership of Lord Methuen. Prior to the attack, the real Boer trenches were not discovered, and instead British artillery carried out a heavy, two-hour bombardment of the largely deserted kopje. Total Boer casualties from this shelling were just 3 men wounded.¹⁵⁷ The subsequent night attack against the position miscarried disastrously, with delays and confusion causing the British to be caught in close order formation several hundred yards short of the Boer line at dawn.¹⁵⁸ Leo Amery considered the placement of the Boer trenches at this battle “one of the boldest and most original conceptions in the history of war”, and while subsequent historians have been less impressed with the originality of the idea, there is no denying it came as an extremely unpleasant shock for the British.¹⁵⁹

In stark contrast to the Boers, British infantry expertise in constructing trenches was noticeably lacking. Pre-war infantry regulations only recognised two kinds of shelter trenches, the ‘half-hour’ and the ‘hour’ named for the amount of time it was expected to take for them to be constructed.¹⁶⁰ These trenches were tiny compared to those of the Boers, being only 1½ feet deep, and although it was considered possible to increase their size if time permitted, in reality this was rarely practised in peacetime for fear of leaving dangerous obstacles behind for cavalry, or because of concerns that the land upon which the training was taking place was privately owned.¹⁶¹ In 1900, Sir Howard Vincent was scathing over this lack of training, writing:

I think at some manoeuvres they have a piece of tape to represent a trench, or something of that sort. That is the ridiculous farce which is played, and all because we cannot compensate some farmer or must not disturb some squire’s game, or something of that kind.¹⁶²

More detailed and serious entrenchment work was considered to be the domain of the Royal Engineers and the infantry was greatly dependent upon them in this regard.¹⁶³ While a proportion of infantry carried a small entrenching spade, heavier tools were carried on pack animals and in local transport, only being distributed when digging in was considered necessary.¹⁶⁴ However, both types

¹⁵⁶ Duxbury, G.,R., *The Battle of Magersfontein 11th December, 1899* (Johannesburg, S.A National Museum of Military History, 1995) p.2

¹⁵⁷ Ibid, p.7

¹⁵⁸ Maurice, *Official History*, Vol.2, pp.316-318

¹⁵⁹ Amery, *Times History*, Vol.2, pp.386-387; Duxbury, *Magersfontein*, p.2

¹⁶⁰ Grierson, *Scarlet into Khaki*, pp.166-67

¹⁶¹ *Elgin Commission*, Vol.2, Q16003, p.242; Q20215, p.444

¹⁶² Comment on Vincent, “Lessons of the War: Personal Observations and Impressions” in *JRUSI* 44(1), 1900, p.657

¹⁶³ *Elgin Commission*, Vol.2, Q17888, p.331

¹⁶⁴ *Elgin Commission*, Vol.2, Q15972, p.23-239

of tools were considered extremely poor for work on anything other than soft ground. Major General Sir H.J.T Hildyard, who had commanded one of the best-trained brigades at the outset of the Boer War, remembered that the tools were “universally condemned” by both junior officers and men.¹⁶⁵ Indeed, his troops had much preferred Boer picks and shovels, and had taken them for their own use whenever the opportunity presented itself.¹⁶⁶

Poor equipment, limited training and over reliance upon the Royal Engineers had created a distinctly negative attitude towards the effort required to entrench properly. Much as there had been a disinclination to take cover in the early part of the war, initially the men were resentful of the labour required to entrench and saw little value in it.¹⁶⁷ An anonymous general in the field was reported as complaining of British troops, “I believe if our people were here for a month they would never entrench.”¹⁶⁸ Major General Sir H.M.L Rundle issued a memo dated June 13th 1900 that summed up many of the problems associated with the attitude towards entrenchment:

...Up to date I have failed to see intelligent use made of entrenchments by Brigadiers or by the troops under their command; they appear to think that a few stones hastily gathered together or 6in. of earth hastily scraped up at haphazard is adequate protection against modern gun and rifle fire.¹⁶⁹

The poor understanding and attitude towards entrenchment in the Boer War was neatly expressed in the famous tactical treatise *The Defence of Duffer's Drift*, where the unfortunate protagonist is called upon to organise a defensive position, only to be repeatedly defeated through simple yet unforeseen errors. Amongst others, these include making a shallow bullet proof trench that is vulnerable to artillery, making a completely straight trench that is too easily enfiladed and failing to conceal a trench line, allowing the Boers to observe a planned ambush from miles away. The author summed this final point up with the words “To surprise the enemy is a great advantage... If you wish to obtain this advantage, *conceal* your position. Though for promotion it may be sound to advertise your position, for defence it is not.”¹⁷⁰

As with the reluctance to take cover, experience under fire gradually began to erode the poor attitude towards entrenchment. Boer methods were admired and imitated.¹⁷¹ Rundle felt that the examination of the Boer trenches at Paardeberg created a sensation throughout much of Lord Roberts's army, and

¹⁶⁵ *Elgin Commission*, Vol.2, Q16003, p.242

¹⁶⁶ *Ibid*, Q16004, p.242

¹⁶⁷ *Ibid*, Q18010, p.337

¹⁶⁸ Quoted in Howard Vincent, “Lessons of the War: Personal Observations” in *JRUSI* 44(1), 1900, p.657

¹⁶⁹ Quoted in *Elgin Commission*, Vol.2, Q17888, p.331

¹⁷⁰ Swinton, E., *The Defence of Duffer's Drift: A few experiences in field defence for detached posts which may prove useful in our next war* (London, Clowes, 1940 reprint) p.165.

¹⁷¹ *Elgin Commission*, Vol.2, Q16600, p.264; Q16924, p.282

its design was subsequently adopted throughout his divisions.¹⁷² The unpleasant experience of being shelled and under heavy rifle fire soon encouraged greater efforts with the spade, as the consequences of inadequate preparation were often fatal.¹⁷³ By the latter stages of the war entrenchment was greatly improved, as then Major General Hubert Plumer recalled:

...they [Plumer's men] were very good at it, they were very intelligent, and in fact it did not require at the end of the war to tell them to entrench themselves; they always did it as a matter of course.

We took up a position, and expected after an hour or so to find our men entrenched, and with very rare exceptions it was so; but at the beginning of the war we had to explain to them how very important it was and what a difference it would make.¹⁷⁴

Conflicting ideas on methods of entrenchment emerged in the aftermath of the Boer War. While skill at 'digging in' had steadily improved, the standard British entrenching tool remained universally reviled. James Grierson felt the tool could be abandoned entirely, arguing it was impossible to dig in under fire, and that it would always be possible to bring up mules carrying shovels and picks when necessary.¹⁷⁵ Equally, Ian Hamilton expressed concerns that while entrenchment was valuable, the carrying of heavy tools by infantry would reduce their mobility too much.¹⁷⁶ The old system of tools being brought to the front when necessary persisted until the Russo-Japanese War. This conflict highlighted the fact that entrenchment had gained considerably in importance, in both attack and defence. Ruminating on the experience, the Duke of Connaught cautioned, "It would appear that it is unsafe in modern war to trust entirely in carts or pack animals for the transport of entrenching tools."¹⁷⁷ Moves towards creating a more efficient entrenching tool proceeded slowly, but by 1907 a superior pattern had been devised and was carried by men and NCOs. Heavier equipment such as picks continued to be carried on pack animals and in carts.¹⁷⁸

In terms of training and practical work, the army initially placed a great deal of thought and effort into improving entrenching methods and tactics. Entrenchment was particularly emphasised during training at Aldershot, where there were facilities for digging and constructing thorough trench lines. Divisions were praised for their detailed work that took into account the experiences of the Boer War, particularly in terms of cleverly siting trenches and providing concealment and covered approaches.¹⁷⁹

¹⁷² *Elgin Commission*, Vol.2, Q17888, p.331

¹⁷³ *Elgin Commission*, Vol.2, Q16635, p.267

¹⁷⁴ *Elgin Commission*, Vol.2, Q18010, p.337

¹⁷⁵ WO 108/184 Notes By Colonel J.M. Grierson R.A on Return from South Africa

¹⁷⁶ *Elgin Commission*, Vol.2, Q13941, p.107

¹⁷⁷ TNA WO 163/11 IGF Report 1905, p.214

¹⁷⁸ *Infantry Training 1911*, pp. 175-176

¹⁷⁹ TNA WO 27/501 – Inspection of 1st Division 27th June 1904

The standards by which the work was judged were extremely high. For example, a trench constructed by a battalion from 2nd Division was picked out for criticism, the inspector noting, “It is perhaps hypercritical... but some trenches on the heather were concealed with bracken when a mixture of fern and heather would have been better.”¹⁸⁰ While in command at Aldershot, Sir John French repeatedly emphasised the need for skill in the use of trenches, writing in 1905:

I would strongly impress upon infantry officers that the skilful use of entrenchments is one of the most powerful weapons in their armoury, and I urge them here, also, to recall their own experiences and impress upon their minds the lesson which these have taught.¹⁸¹

Aldershot was well suited for training in entrenchment, possessing government owned land that could be dug up and worked upon as required. Soil at Aldershot was sandy and thus easily worked, although the loose nature of the earth could prove problematic when constructing deeper entrenchments. However, for other elements of the British Army this was not the case. Southern Command was particularly lacking in appropriate ground for entrenchment training.¹⁸² A further problem was that as the years passed by, the quality of training in entrenchment was observed to be in something of a decline, with elementary aspects poorly understood and an overemphasis upon elaborate schemes. In a 1910 report, Sir John French complained, “I do not believe that instruction in the practical, thorough entrenching of positions receives adequate attention, although a few years ago it was a prominent feature of all our larger exercises and manoeuvres.”¹⁸³ Despite being an issue singled out for improvement by the Army Council, problems with entrenching continued to be identified right up until the outbreak of the First World War. Individual spade work was considered good, but there remained limited tactical thought in the placement of trenches and rarely was consideration given to steps necessary for them to be occupied for long term periods.¹⁸⁴ Little improvement was evident by 1913, and it was considered that infantry had regressed in this regard.¹⁸⁵

A number of factors were responsible for the disregard of the lessons that had been learned in South Africa. Ian Hamilton identified a natural turn over in the numbers of men and junior officers who had seen action as an influence, noting in 1908:

¹⁸⁰ TNA WO 27/502 – Inspection of 2nd Division 10th August 1905

¹⁸¹ TNA WO 27/503 Memorandum On the Training of 1st Army Corps 1905 31st January 1905

¹⁸² TNA WO 163/14 IGF Report for 1908, p.219

¹⁸³ TNA WO 163/16 IGF Report for 1910, p.221

¹⁸⁴ See variously, TNA WO 163/16 IGF Report for 1910, p.243; TNA WO 163/17 IGF Report for 1911, pp.476, 514-515; TNA WO 163/18 IGF Report for 1912, p.627

¹⁸⁵ TNA WO 163/20 IGF Report for 1913, p.383

...[in the last three years] there has been an inevitable steady process of replacing war-trained subalterns, sergeants and corporals by young officers and non-commissioned officers of similar rank who have not as yet been able to profit by the experiences of field service.¹⁸⁶

This process continued throughout the pre-First World War period, and by 1914, 46,291 men of the British Expeditionary Force had less than two years' experience with the colours.¹⁸⁷ As the soldiers of the Boer War had been inclined to regard entrenchment as tedious and time consuming prior to the experience of combat, so these new soldiers and junior officers were inclined to form the same opinion without the shock of incoming fire to dispel it. A further problem for the British Army was the increasing emphasis on the offensive, to the point where passive defence was considered fatal for any hope of success. Infantry training manuals emphasised the importance of the offensive, downgrading the value of strong entrenchments and seeing them as primarily being of use in terms of reducing the number of men needed to hold a position, allowing more troops to be used in a counter attack. Field Service Regulations 1909 stated "The choice of a position and its preparation must be made with a **view to economizing the power expended on defence in order that the power of offence may be increased.**" [Emphasis in original].¹⁸⁸ It is likely that this great focus on the offensive contributed to the general apathy towards entrenchment work that pervaded British training in the latter stages of the period.

Of all the key lessons learned by the infantry in South Africa, entrenchment had the least lasting influence. While in the years immediately following the Boer War entrenchment had been well practised and understood, the tactical use of earthworks underwent something of a regression in the later part of the Edwardian period, despite the example of the Russo-Japanese War proving it was more important than ever. Over-emphasis on the offensive, a decline in the numbers of war hardened soldiers and a lack of facilities upon which to train all played a part in the fading of these important lessons. Nevertheless, the standard of entrenching in the infantry had come a considerable way from the virtually non-existent level it had been at in 1899 prior to the Boer War. While the First World War would ultimately require a revision of entrenchment methods and tactics as trenches became the dominant aspect of the battlefield, in the early months of the war the experience of the Boer War helped to give the British infantry a basic grounding in entrenchment tactics. Nevertheless, the heavy German artillery fire of 1914 came as an unpleasant shock for the British and necessitated the reiteration of the lessons of concealment and depth for trenches that had originally been identified in South Africa, but which had declined during the years of peace that followed.¹⁸⁹

¹⁸⁶ Hamilton, "Training of Troops in 1908" in *JRUSI* 52(2), 1908, p.1557

¹⁸⁷ Ascoli, David, *The Mons Star* (Edinburgh, Birlinn, 2001) p.8

¹⁸⁸ *Field Service Regulations 1909*, p.146. This line was reiterated in *Infantry Training 1911*, pp.132-133.

¹⁸⁹ For example, *Notes from the Front*, p.2

Conclusions

From 1902 – 1914 the infantry of the British Army experienced a vast overhaul of training and tactics. The British Expeditionary Force of 1914 was tactically almost unrecognisable from the army that had been defeated by the Boers at Colenso, Magersfontein and Stormberg in 1899. Whereas the Victorian infantry system had placed faith in volley firing and cumbersome, linear formations, the army of 1914 utilised flexible tactics that emphasised dispersion, intelligent use of the ground and skilful employment of fire power.

Despite the persistence of some tactical and material weaknesses, the British infantry of 1914 were far better trained to wage modern war than they had been in 1899. The lessons of the Boer War were sometimes ambiguous and often challenged, but the key themes of dispersion, use of ground, maximisation of infantry fire power and the value of spade work emerged from the conflict and became the core tactical principles for the infantry. As previously discussed, useful lessons had often emerged from colonial conflicts in the Victorian period, but a failure to disseminate them to the wider army meant they had little impact beyond the regiments who had fought in them. In this regard the Boer War was different. By sucking in virtually all the regular regiments of the British Army it ensured the fighting was experienced by a far wider audience than had smaller campaigns such as Tirah or Sudan. Furthermore, the embarrassment of struggling to overcome two of the smallest nations in the world while the rest of Europe watched with a mixture of hostility and *schadenfreude* emphasised the need for rapid, thorough and lasting reforms. While the Boer War ended in victory for the British, early defeats, the long duration and the bitter guerrilla nature of the final years of the conflict meant that there was no time to bask in glory or feel anything but fleeting satisfaction over the result. In this regard, the struggle in South Africa not only provided the tactical direction for future developments but crucially gave the impetus for wholesale reform that had been missing during the years of easy victories in the Victorian era.

With hindsight, it is possible to identify aspects of the reforms that did not develop as fully as perhaps they should have. In particular, the failure to equip the infantry with machine guns in greater numbers was undoubtedly an unfortunate decision, but as has been demonstrated a combination of financial restrictions and the poor performance of the weapon in South Africa militated against its wider adoption. However, in placing emphasis on such errors, there is a danger of ignoring or marginalising the fact that as a whole, British infantry tactics and training improved to a previously unknown level, placing them considerably in advance of European rivals. Not only were useful tactical lessons derived from South Africa, but the need for improved training to ensure they were absorbed by the army was also identified and successfully implemented.

The process of infantry reform begun by the Boer War had born fruit by the outbreak of the First World War, and the experience gained in South Africa led directly to the creation of the highly trained B.E.F. infantryman of 1914. The ability to fight in dispersed formation and produce very rapid and accurate rifle fire came from reforms introduced as a direct result of the Boer War. In the confused opening battles of August 1914, these skills were to be decisive in allowing the British Army to fight crucial delaying actions against the numerically superior Germans. Whereas the French and German infantry attacked in clumsy, dense formations and suffered terrible casualties in the opening months, the British infantry displayed superior tactics of both fire and formation, shocking the attacking Germans in crucial defensive battles such as Mons and Le Cateau. British performance in these early battles gave the 'Old Contemptibles' an enduring reputation for skill and determination that proved that many of the hard lessons of the Boer War had been well learned.

Chapter Three Artillery

The Boer War was a rude awakening for the entire British Army, but the arm which received the greatest surprise was the Royal Artillery. The gunners had to look back several decades to the Crimean War to find a conflict in which they faced an enemy who was comparably armed, while years of small scale colonial warfare had left little room for the artillery, which generally had a very limited combat role against crudely armed foes. Lacking practical experience of fighting against technologically equal enemies, the gunners based much of their doctrine upon German writing which drew examples from the Franco-Prussian War. Unfortunately, many of these ideas were to prove irrelevant to artillery combat on the veldt.

Although the Royal Artillery possessed a substantial numerical advantage over the handful of guns available to the Boers, in the early battles of the war the British were often disappointed by the performance of their long arm. The Boer gunners refused to conform to expectations of battle derived from the Franco-Prussian War, which suggested guns of both sides should engage in a preliminary artillery 'duel' against one another in the open. Instead, the Boers made the most of concealment, long range and dispersion to continuously harass the British, despite the best efforts of the Royal Artillery to locate and destroy them. Although the physical damage inflicted by the Boer guns was small, its impact on morale was considerable. The apparent effectiveness of Boer artillery tactics were greatly magnified by the reporting of the British press, further heaping humiliation upon the Royal Artillery.

These embarrassments and the press reaction to them caused the government to approve a complete overhaul of the equipment of the Royal Artillery, with new guns and howitzers for both field and heavy artillery being introduced. In technical terms, particularly range and rate of fire, the guns of 1914 represented an enormous advancement from those with which the British had gone to war in 1899. However, the difficulty for the Royal Artillery in the years following the Boer War was designing workable tactics and doctrine to take advantage of these new weapons. The Boer War had shaken many long held ideas in the artillery and a variety of replacement theories struggled for prominence in the years preceding the First World War. While initially ideas from the war in South Africa were dominant, as the period progressed there were concerns that the conditions on the veldt and the nature of Boer artillery were both radically different from those likely to be encountered in a potential European conflict, and therefore influences from the continent and the Russo-Japanese War became popular, further complicating the process of developing new tactics. Technological changes were fundamentally altering the employment of field artillery, while the permanent introduction of heavy guns into the field marked a new tactical element which had only been seen on rare occasions in the previous wars. At the same time the gunners were grappling with these changes, there was a

gradual but growing recognition that on a fire swept battlefield, artillery would become the dominant weapon.

Whereas the infantry of the B.E.F. have won much praise from historians for their development in the aftermath of the Boer War, the Royal Artillery of 1914 has not received such universal admiration. Shelford Bidwell and Dominick Graham have offered praise for the Royal Artillery in the post-Boer War years, noting that intelligent officers, particularly those who had fought in South Africa, were working hard to improve tactics.¹

However, competing theories and a lack of consensus on their value meant that a level of uncertainty over correct artillery doctrine persisted.² Conversely, Robert Scales has been critical of the artillery, arguing that too much faith was placed in the lessons of the Boer War, blinding the gunners to developments on the continent. Scales argues that by 1914 the British artillery was materially and tactically inferior to that of Germany, and cites the heavy losses suffered by the Royal Artillery at the Battle of Le Cateau 26th August 1914 as an example of how German gunners were more combat effective.³ Edward Spiers has taken a more balanced view, feeling that the artillery possessed a well considered doctrine by the eve of the First World War. However, Spiers suggests this was not due to the Boer War experience but was instead formed by the “fortuitous coincidence” of the examples of the Russo-Japanese War and closer links with the French military following the entente of 1904.⁴

The variety of historical opinion concerning the effectiveness of the Royal Artillery in 1914 mirrors the lack of consensus that existed within the arm during the pre-First World War period. However, despite a number of weaknesses within the long arm in 1914, the Royal Artillery had developed considerably both materially and tactically from the force that had gone to war in 1899. This chapter will argue that the experiences and lessons of the Boer War were a driving force for effective reform during the period. Although certain aspects of the Boer War were unique and sometimes misleading, key ideas were implanted in the minds of the Royal Artillery during the conflict. The Russo-Japanese War provided important artillery examples, but many of these tended to confirm existing lines of thought rather than generate completely new ideas. The continental influence offered some useful comparisons, but the much admired French artillery suffered from several serious tactical and material flaws of its own, and attempts to adopt its methods were potentially misleading. However, the most serious problem during this period of reform was the failure to create a true artillery doctrine from these competing theories. Instead, flexibility of method was encouraged which allowed certain

¹ Bidwell, Shelford & Graham, Dominick, *Firepower: The British Army Weapons and Theories of War 1904-1945* (Barnsley, Pen & Sword 2004) pp.34, 41

² Ibid, pp.11-12, 19

³ Scales, Robert, ‘Artillery in Small Wars: The Evolution of British Artillery Doctrine 1860 – 1914’, PhD Dissertation, Duke University, 1976, p.314

⁴ Edward Spiers, “Rearming the Edwardian Artillery” in *The Journal of the Society for Army Historical Research* LVII (231), 1979, p. 176

outdated ideas to survive right up until the First World War. Nevertheless, in spite of this problem, the Royal Artillery had advanced enormously in terms of tactics from 1899 to 1914, and fought tenaciously against vastly superior numbers of German guns in the opening battles in August 1914.

Discussion of this topic will be structured around several important developments within the artillery branch during the 1902 – 1914 period, all of which had their roots in the experiences of the Boer War. It will cover the ongoing debate within the Royal Artillery over the potential usefulness of long range fire and how best to incorporate the new branch of Heavy Artillery into the existing tactical framework. Additionally, the vociferous debate over whether engaging from concealed positions or using close range deployment in the open was the correct method to employ will be analysed, along with the development of the relatively new indirect support weapon in the form of the field howitzer. The final part of the chapter will concentrate upon arguably the greatest tactical problem that dominated thinking amongst artillerymen, namely how best to support infantry, especially during the attack. Taking these themes as a base, this chapter will demonstrate how the Boer War provided a crucial impetus for artillery reform. Although the lessons from South Africa sometimes proved to be misleading, its tactical influence provided a crucial starting point for future development. Further shaped by examples from Manchuria and the continent, the Royal Artillery was able to develop tactics by 1914 that were a considerable advance on the faulty ideas with which it had gone to war against the Boers.

Long Range Fire and Heavy Guns

On the eve of the Boer War the Royal Artillery remained wedded to tactical ideas developed by the Germans during the Franco-Prussian War. Part of the Prussian experience was that long range fire was generally ineffective, and therefore it was felt shooting at ranges above 1,800 yards should be avoided if possible.⁵ While modern artillery pieces of the 1890s were technically capable of delivering fire at far longer ranges, it was generally believed that any shots beyond observable distance would be wasted, and therefore the Royal Artillery worked towards securing maximum accuracy and effect at shorter ranges. To this end, the practice range at Okehampton was just 1,500 yards long in 1897, although it had been increased to 2,148 yards by 1899.⁶ Other arms endorsed such ideas. For example, the infantry anticipated 3,000 yards to be the extreme “useful range” of hostile artillery, and did not expect to come under fire at greater distances.⁷ The limited experience the artillery had gained in fighting against colonial foes had done nothing to shake this faith in close range action, and indeed the guns had fought at almost point-blank distances against the Zulus and the

⁵ *Report of His Majesty's Commissioners Appointed to Inquire into the Military Preparations and Other Matters Connected with the War in South Africa*, (London, H.M.S.O 1903) Vol.1, Q1673, p.79 (Hereafter referred to as the *Elgin Commission*)

⁶ *Ibid*, Q1673, p.79

⁷ *Ibid*, Q1673, p.79

Dervishes. Although time would prove this to be a weakness against the Boers, on the eve of the conflict there was felt to be little cause for concern. Even staunch critic Leo Amery felt the British artillery was “perhaps the best trained in Europe” prior to the war.⁸

Unfortunately for the Royal Artillery, lessons drawn from a war fought thirty years earlier and limited experience against primitively armed foes had done little to prepare the arm for combat against a determined enemy equipped with modern weapons. Small arms fire against gun crews had been a growing feature of warfare from the American Civil War onwards, and the latest long range, smokeless rifles made close range tactics extremely dangerous for the artillerymen. However, amongst many colonial veterans this fact went unrecognised. Captain N.F. Gordon related a conversation with a handful of officers of the Natal Field Force prior to them seeing action, where one veteran of “small wars” offered the opinion that;

...long and medium ranges would hardly ever be necessary, that the motto for the mounted artilleryman should be ‘Push forward, push forward’ and that endeavours should be made to first come into action 500 yards to 800 yards from the objective, which should ensure success to your own side and be very bad indeed for the enemy.⁹

However, in the face of modern small arms fire, these tactics were dangerously out of date. This fact was brought into stark focus in the early months of the Boer War, when an attempt to make use of the kind of daring tactics that had worked in ‘savage’ warfare failed disastrously. At the Battle of Colenso, Colonel Charles Long took two batteries of field artillery into close range action in the open against an entrenched Boer position, without any friendly infantry support. Redvers Buller subsequently put the range as “...1,200 yards, and I believe within 300 yards of the enemy’s rifle pits.”¹⁰ Long had fought at Omdurman where he had caught the eye with the daring handling of his guns, and he was reported by a journalist as expressing the opinion on the voyage to South Africa that “the only way to smash these beggars is to rush in on them.”¹¹ While this may have been appropriate in the Sudan, where the Dervishes had been armed with hand to hand weapons and fought in the open, at Colenso the Boers were equipped with modern rifles and fought from well dug trenches. At such close range, the contest was an unequal one despite the courage of the gunners. Long was seriously wounded, while crews and horses suffered heavy losses. The batteries managed to sustain the action for almost an hour before mounting casualties forced the gunners to fall back, abandoning their

⁸ Amery, L.S. (ed.) *The Times History of the War in South Africa* (London, Sampson Low Marston and Company 1900-1909) Vol.2, p.81 (hereafter *Times History*)

⁹ Captain N.F. Gordon, “Has the experience of the war in South Africa shown that any change is necessary in the system of field artillery fire tactics (in the attack as well as in the defence) in European Warfare?” in *Minutes of the Proceedings of the Royal Artillery Institution XXIX 1902-1903*, p.258

¹⁰ TNA WO 108/237 Buller’s Despatch on Colenso 17th December 1899

¹¹ Quoted in Powell, Geoffrey, *Buller: A Scapegoat? A Life of General Sir Redvers Buller V.C* (Leo Cooper, London 1994) p.150

weapons in the open.¹² Valiant attempts to recover the lost pieces followed, resulting in further casualties including the death of Lord Roberts's only son. However, despite the best efforts of a number of volunteers, only two of the twelve abandoned guns were brought back to British lines. The Boers dragged the remainder away in the night, completing a humiliating reverse for the British, especially for the artillerymen, who prided themselves on preventing the loss of guns in action.¹³ Explaining his tactics, Long later claimed that he had been confused by the atmospheric conditions and had got closer to the Boers than he had intended.¹⁴ Some years after the war he also somewhat uncharitably blamed Buller for not giving him more precise guidance, relating to another officer that when Buller pointed out the position he wanted Long to occupy, "his damned, fat thumb covered three square miles of the map!"¹⁵ It remains unclear how and why Long blundered into such a dangerous position, but it is likely that the reckless charge was the product of the misleading experiences of numerous wars against ill armed opposition.

Long's close range disaster at Colenso was not repeated by other batteries, but the dangers posed by infantry fire remained serious. At the Battle of Elandslaagte, Boer marksmen wounded several gunners including the commander of one battery, and at the Battle of Stormberg, while covering the British retreat, 77th Battery came under such intense rifle fire that its commanding officer gave the order for the gunners to kneel while working the guns.¹⁶ It was clear that old methods inspired by the Franco-Prussian War and colonial actions were no longer adequate in the face of well armed infantry. Significantly, when Lord Roberts took charge in South Africa, the very first point relating to artillery in his 'Notes for Guidance' was "At the commencement of an action Artillery should not be ordered to take up a position until it has been ascertained by scouts to be clear of the enemy and out of range of Infantry fire."¹⁷ With Boer rifle fire considered capable of inflicting casualties at 1500 yards or more, this forced the guns to rely on longer ranged fire than it had been possible to practice at Okehampton for much of the pre-war period, and represented quite a shock to artillerymen who had not considered small arms fire to be dangerous at more than 1,000 yards.¹⁸

However, a further problem regarding appropriate ranges also confronted the artillery. Despite the varied experience of imperial conflict, a significant gap in British military knowledge was methods of combat against enemy guns. Foes encountered in colonial actions had lacked any meaningful artillery, and the example of fighting the Russians in the Crimea was rendered largely irrelevant by the tremendous technological advancements that had occurred during the following decades. The

¹² Pakenham, Thomas, *The Boer War* (London, Abacus, 1997 reprint) p.231

¹³ Headlam, John, *The History of the Royal Artillery, From the Indian Mutiny to the Great War: Volume III Campaigns 1860-1914* (Woolwich, Naval and Military Press, No Date) pp. 377-380

¹⁴ Powell, Buller: *A Scapegoat?*, p.150

¹⁵ TNA WO 108/185 The Diary of Major H. de Montmorency, No date, p.62

¹⁶ Headlam, *History of the Royal Artillery*, Vol.III, p.340

¹⁷ TNA WO 105/40 "Notes for Guidance in South African Warfare", January 26th 1900, No Pagination

¹⁸ Amery, *Times History*, Vol.2, p.182; Headlam, *History of the Royal Artillery* Vol.3, p.514

Boer War would represent the first time in almost fifty years that the Royal Artillery faced a foe with comparable, and in some respects superior weapons. As the Boers could not financially sustain a gun for gun arms race with Britain prior to the war, emphasis had been placed upon gaining qualitative advantages by importing the most modern European artillery. Weapons used by the Boers included 75mm field guns from French and German manufacturers, plus the notorious Creusot 155mm, nicknamed “Long Tom” by the British.¹⁹ These weapons were manned by the Transvaal’s *Staadtsartillerie* and the Orange Free State’s *Artillerie Korps*. Amounting to a little over 1000 men, these two small formations represented the only professional element of the militia based Boer military. While some historians have considered that the level of tactics amongst the Boer gunners did not match the quality of their equipment, more recent scholarship has argued that following the botched Jameson Raid in 1896, the artillerists took their duties very seriously and worked hard to improve their gunnery and tactical handling.²⁰

Of these weapons, the one that was to create the most profound shock and have the longest lasting influence upon the British was the “Long Tom”. The 155mm was essentially a fortress gun designed to be placed in a fixed mounting. British intelligence had identified their presence in the Boer arsenal but assumed they were to be used in the recently constructed fortifications around Pretoria, noting that they were “not really mobile guns at all.”²¹ However, against all expectations, the Boers were able to move these weapons into the field and maintained such mobility with them that the British were never able to capture one intact. Combined with its inherent range, the uniquely clear atmospheric conditions of South Africa meant that these “Long Toms” could deliver surprisingly accurate fire at ranges of 10,000 yards and beyond. Even the smaller field pieces of the Boers were typically used to fire at long ranges, refusing to engage the British in a straightforward gun duel and instead relying on distant, harassing fire.²²

The actual effectiveness of this long range shooting was a matter of some debate within the British Army. The Boers suffered persistent problems with their fuses which meant their shells often burst in the ground or not at all, seriously reducing their effectiveness. However, when the fuses were correct and the ammunition worked properly, they were capable of inflicting damage at unprecedented ranges. Lord Roberts related an example of a Boer shell fired from around 7 miles away hitting a Volunteer company of the Gordon Highlanders, killing and wounding 18 men, while an artillery officer of the Natal Field Force remembered a single Boer shell causing 21 casualties at

¹⁹ Pakenham, *The Boer War*, p.41

²⁰ Bailies, Howard, “Military Aspects of the War” in Warwick, Peter (ed.) *The South African War: The Anglo-Boer War 1899-1902* (Harlow, Longman, 1980) p.70; Nasson, Bill *The South African War 1899-1902* (London, Arnold 1999) p.59

²¹ *Elgin Commission*, Vol.1 Q1680, pp. 80-81

²² N.F Gordon, “The Experience of War in South Africa”, in *RAI*, XXIX 1902-03, p. 251

approximately 10,000 yards.²³ Nevertheless, such shots were rare and casualties from very long range fire were limited. Ruminating on this fire, one officer noted that Boer shells regularly “...burst with marvellous accuracy, but, for the most part, entirely harmlessly.”²⁴ Henry Brackenbury expressed a more critical view of the value of the “Long Toms”.

...I do not think the physical effect of the Boer heavy guns was ever anything at all. They never did any serious harm of any sort, and nothing was so astonishing to me, and I think to many others among us, as the extraordinary moral effect which the presence of these big guns had upon our troops, especially the cavalry.²⁵

Despite Brackenbury’s surprise, it must be remembered that being under hostile artillery fire was a new and uniquely frightening experience for much of the British Army. Having not faced artillery in over fifty years, it was perhaps inevitable that being shelled by long range guns would exert a disproportionate effect. Rear-Admiral Hedworth Lambton, commanding the Naval detachment trapped at Ladysmith, highlighted the problem;

What really caused the depression was the extraordinary ignorance of the power of Long Tom. So far as I can make out there was hardly a single soldier who had ever seen a big gun, and the exaggerated apprehension of this gun was really very marked.²⁶

How to deal with this long range fire was a problem for the British. Standard field artillery armament was the 15-pound gun, with the horse artillery possessing a smaller, more mobile 12-pound gun, both of which were out ranged by the 155mm despite the best efforts of Royal Artillery officers to deliver effective counter battery fire. The absence of a mobile, long range gun was a clear gap in the equipment of the British Army, a legacy of years of colonial war against opponents who possessed no real artillery of their own and could thus be engaged at close range. Lacking suitable equipment, the British brought 4.7 inch naval guns into the field, mounted on improvised carriages taken from heavy howitzers, as an emergency stop gap to deal with Boer 155mm.²⁷ These pieces certainly possessed comparable range to the “Long Toms”, and were able to engage at up to 11,000 yards, although 8,000 yards was generally considered the limit of truly effective range.²⁸ However, they had never been intended for field use, and as with all improvised weapons they suffered from certain drawbacks, particularly regarding their heavy carriage and consequent lack of mobility. Despite matching the

²³ *Elgin Commission*, Vol.1, Q10569, p.448; TNA WO 108/266 Reports on Artillery Equipment in South Africa: Heavy Artillery, p.17

²⁴ Lieutenant Colonel R.H. Morrison, “Lessons to be Derived From the Expedition to South Africa in Regard to the best organization of the Land Forces of the Empire” in *Journal of the Royal United Services Institute* 45(2) 1901, p.797

²⁵ *Elgin Commission*, Vol.1, Q1682, p.82

²⁶ *Elgin Commission*, Vol.2, Q19192, p.388

²⁷ *Elgin Commission*, Vol.1, Q1680, p.82

²⁸ TNA 108/266 Reports on Artillery Equipment in South Africa: Heavy Artillery, p.21; Headlam, *The History of the Royal Artillery*, Vol.III, p. 394

“Long Toms” for range, the 4.7 inch guns did not win universal praise. Artillerymen themselves recognised that bringing the weapon into the field was essentially a compromise solution, and few were satisfied that it had achieved an acceptable balance of power, range and mobility.²⁹ Other officers had even stronger criticisms. For example, Lt. General Sir Archibald Hunter was especially scathing, recounting that the shooting of the 4.7 inch guns manned by naval crews in Ladysmith was so bad “that I offered to take the girls out of the school to come and serve the guns, and make as good practice.”³⁰ Some older artillerymen felt the press had blown the danger of long range fire out of all proportion, and that using the 4.7 inch guns at all was a waste of resources and ammunition. One retired gunner complained in 1900:

The public are very much exercised because we do not fire at from 8,000 to 10,000 yards. What is the good of firing at from 8,000 to 10,000 yards? How much is that? From 4.5 to 6.5 miles... I say it is perfectly impossible to make accurate practice at such distances...I think these great ranges have been utterly useless, and I hope, for Heaven’s sake, we shall not copy them.³¹

Nevertheless, the 4.7 inch gun also drew praise, particularly from the infantry who appreciated its ability to engage the Boer long range guns on equal terms. Lt. General Hildyard considered that; “The heavier guns in use have proved of great value. The 4.7 inch Naval Gun is the only one that can compete with the Boer guns in range, and any fire [sic] operating without them feels itself, in a certain sense, in an inferiority.”³² Commanding officers such as Buller and Charles Warren also singled out the 4.7 inch for praise, particularly in support of infantry attacks.³³ While the actual equipment was regarded with a somewhat circumspect eye by many soldiers, other officers saw the value of long range fire as being one of the most important lessons to be drawn from the Boer War.³⁴ Even the critical Archibald Hunter noted “I think one of the chief lessons of the war that the Boers taught us is how to move guns of positions about and use them as field artillery.”³⁵ It was also a point of concern that the Boers had sprung such a surprise upon the British with their long range guns, and the fear that it could happen again with disastrous results if the Royal Artillery was not properly equipped.

²⁹ TNA 108/266 Reports on Heavy Artillery - See p.1-3, responses to question (a).

³⁰ *Elgin Commission*, Vol.2, Q14657, p.142

³¹ Comment on Colonel Sir Howard Vincent, “Lessons of the War: Personal Observations and Impressions of the Forces and Military Establishments Now In South Africa” in *Journal of the Royal United Services Institute* 44(1) 1900, pp.641-642

³² TNA 108/266 p.103

³³ *Elgin Commission*, Vol.2, Q15471, p.211; Q15850, p.233

³⁴ For example: Lieutenant A.T. Dawson, “Modern Artillery” in *Journal of the Royal United Services Institute* 45(1) 1901, p.462; Morrison, “Lessons to be derived” in *JRUSI*, 45(2) 1901, p.798

³⁵ *Elgin Commission*, Vol.2, Q14654, p.141

Artilleryman G.H. Marshall recognised that “...as long as the Boers or anybody else have a long range gun against us we are bound, even if only for the moral effect, to have a gun of equal range.”³⁶

The need for artillery to engage at greater ranges, both to avoid the effects of small arms fire and also to deal with long range enemy artillery soon received official endorsement, with the new attitude towards combat distances being reflected in post war drill books. Whereas prior to the war, it had been considered that 2,500 – 3,500 yards was “medium to distant” range, in 1902 artillery range tables put “distant” range as 4,500 - 6,000 yards.³⁷ “Effective” range was considered to be 3,500 – 2,000 yards, with ranges below this termed “decisive”. Heavy batteries were given a separate ranging table which put their maximum range at 10,000 yards. These ranging standards were first introduced in 1902 and remained in force throughout the period up to the outbreak of the First World War.³⁸ To facilitate training at these new ranges, Okehampton had its target area extended, with the distance more than doubled from the 1897 length to 3,209 yards in 1902.³⁹ By 1904, the artillery training range at Salisbury Plain stood at an impressive 4,000 yards.⁴⁰

While the older 15-pound field gun had been able to achieve ranges beyond pre-war expectations in South Africa, for the gunners to deliver effective fire consistently at such distances required new equipment. Artillerymen had been agitating for a rearmament programme in the years prior to the Boer War, and the shock of the opening six months caused the government to approve a complete overhaul of artillery weapons. However, the experience of combat in South Africa generated a considerable debate on the nature of any future field artillery. The capacity of the Boers to bring very large weapons into the field and keep them mobile had been well matched by the British ability to keep 4.7 inch guns and heavy howitzers moving, even during column operations where mobility was considered a crucial asset. Despite their weight, these heavy pieces acquired a good reputation amongst column commanders, and their popularity was such that attempts to remove the guns from columns were met with fierce resistance.⁴¹ In the years following the end of the war, a school of thought emerged which argued that the Boer War had shown that very heavy weapons could prove mobile enough for the purposes of infantry support, and therefore heavy artillery should become the new form of field artillery. Ian Hamilton was an early champion of this viewpoint, relating to the Elgin Commission that “...I hold very strong views that there is no longer any room for Field Artillery in a modern army... It is uselessly mobile for the infantry...”.⁴² Other officers echoed this idea, with Leslie Rundle considering that “...we go for too light a gun. I do not think horses galloping about is

³⁶ *Elgin Commission*, Vol.2, Q18562, p.364

³⁷ *Elgin Commission*, Vol.1, Q1674, pp.79-81,

³⁸ War Office *Combined Training* 1905 (London, H.M.S.O 1905) p. 100

³⁹ *Elgin Commission*, Vol.1, Q1674, p.79

⁴⁰ Headlam, John, *The History of the Royal Artillery, From the Indian Mutiny to the Great War: Volume II 1899 – 1914* (Woolwich, Naval and Military Press, No Date) pp.52-53

⁴¹ TNA WO 163/9 Army Council Précis 1904 – Précis 77 p.199

⁴² *Elgin Commission*, Vol.2, Q13941, p.111

[sic] necessary in modern warfare... I want to see heavy field artillery brought in and dragged up by mules, traction engines, or anything that would do it; that would be my tendency.”⁴³ While the use of heavy pieces for field artillery was not a unanimous view, it did reflect a more general desire for improved range and especially firepower in the artillery that was common throughout the army.

This urge for greater firepower ultimately bore fruit in the adoption of the 18-pound gun for field artillery and the 13-pound gun for horse artillery. When its introduction was mooted, the 18-pounder was considerably more powerful in terms of shell weight than any gun in its class then in service in Europe, but it was also heavier. There were concerns over the fact that the gun was too heavy and not in line with typical European artillery equipment, with the Secretary of State bemoaning that such a heavy weapon did not “conform to the rest of the world” and suggesting that setting out on a separate path would only end with Britain having to revert to European standard at great cost.⁴⁴ However, the example of the Boer War was cited in response, the Adjutant General pointing out that “The great majority of officers who saw service were of the opinion that both Horse and Field Artillery guns should have greater range, and that the Field Artillery should have greater shell power.”⁴⁵ By this point Ian Hamilton had moderated his views on heavy guns for field artillery after witnessing the difficulties experienced by the Japanese moving heavy pieces into action in Manchuria, and contributed to the discussion via letter endorsing the 18-pounder as a good compromise.⁴⁶ After a considerable debate between the government and the Army Council, the new guns were somewhat reluctantly accepted by the Secretary of State.⁴⁷ A technical response to the problems encountered in South Africa, the new weapons were nevertheless modern and powerful when the designs were accepted in 1904. In terms of range and weight of shell the guns were excellent, and compared favourably with field guns then deployed by France, Germany and Russia. Shields were fitted as standard to the weapons for the first time in the Royal Artillery, providing some protection for the crew, particularly from shrapnel and small arms fire, and encouraging the gunners to operate the gun while crouched. However, despite their apparent quality, the new guns suffered from certain drawbacks which will be discussed in greater detail later in this chapter.

In addition to rearming the Field and Horse artillery, a better weapon for the newly formed heavy branch was required. The 4.7 inch was an unsatisfactory compromise and although it remained in service for several years after the end of hostilities, a committee to consider its replacement was appointed in October 1902.⁴⁸ As early as 1900, Lord Roberts had called for a new heavy gun and laid

⁴³ Ibid, Q17932, p.333

⁴⁴ TNA WO 163/9 Army Council Précis 1904 – Précis 77, p. 188

⁴⁵ Ibid, p.193

⁴⁶ Ibid, pp.206 - 207

⁴⁷ Ibid, pp.188-207

⁴⁸ Headlam, *History of the Royal Artillery*, Vol.II, p.82

down the simple requirements as, “Range 10,000 yards, weight behind the team not more than 4 tons, shell of as large a capacity as possible.”⁴⁹ This resulted in the design, approval and subsequent introduction of the 60-pound gun in 1905-1906. Compared to the difficulties of introducing the guns for Field and Horse artillery, the process of design for this heavy weapon was remarkably painless, the gun matching the specifications assigned by Lord Roberts in all respects except for an unavoidable extra half ton of weight.⁵⁰

Equipped with all these new, longer ranged weapons, the immediate issue facing the British was how to devise a doctrine for their usage. This was especially difficult in the case of the heavy artillery, which had been born as a result of the Boer War, and as such had to draw virtually all its arguments for employment from this conflict.⁵¹ As Robert Scales has argued, the 60-pounder was a design which owed almost everything to the experience of the veldt.⁵² It was a flat trajectory gun, using heavy shrapnel as its principal ammunition, and, although it also carried a proportion of lyddite ammunition for dealing with ‘hard’ targets, the primary role of the weapon was as a man killer rather than a material destroyer. This was very much inspired by the usage of heavy guns in South Africa, where, with the exception of entrenchments, the opportunities for material destruction had been relatively limited. The veldt lacked built up urban areas or even large stretches of woodland where high explosive could be used with great effect. Furthermore, the poor performance of lyddite explosive from heavy guns prejudiced many officers against its use and encouraged the use of shrapnel instead.⁵³ Although heavy guns had been used to pound Boer trenches, their main duty had been to try and silence enemy artillery and sweep rear areas at great distances. Regarding this topic, one officer wrote shortly after the war:

Our South Africa experience has shewn us that the principle which we have long recognised as true in the case of the field gun, is equally so in the case of all guns used in the field, viz., that the gun is a man killing weapon, and shrapnel should therefore be its principal projectile.⁵⁴

Although it was considered obsolete following the Boer War, the 4.7 inch gun remained in service with the heavy batteries of the Territorial Divisions, and the guns served in World War 1 on the Western Front until April 1917. A handful remained in service in other theatres of war until the very end of the conflict.

⁴⁹ Quoted in Headlam, *History of the Royal Artillery*, Vol.II, p.82

⁵⁰ Scales, “Artillery in Small Wars”, p.259

⁵¹ Captain A.A. McHardy, “On Heavy Artillery” in *United Service Magazine*, April 1904, p.54

⁵² Scales, “Artillery in Small Wars”, p.259

⁵³ Lieutenant Colonel N.B Inglefield, “Some Remarks on the Royal Artillery in the war in South Africa, chiefly with reference to heavy guns in the field” in *Minutes of the Proceedings of the Royal Artillery Institution* XXXIX 1902-03, pp.505-508

⁵⁴ Major E.G. Nicolls, “The Training, Organisation and Equipment of Companies of the Royal Garrison Artillery with Medium Guns, And Howitzers, And Their Tactics in Future Field Operations” in *Minutes of the Proceedings of the Royal Artillery Institution* XXVIII 1901-1902, p.102

The sensation created by the Boers' use of long range fire lingered in the memories of many soldiers. Officers had been shocked at the tremendous fear created by the shooting of the "Long Toms" in the early stages of the war, and hoped to create similar panic amongst potential enemies.⁵⁵ To further facilitate this idea, some advocated copying Boer methods of extreme dispersion of heavy guns, to the point of using them as individual 'sniper' style weapons. Winston Churchill was an early advocate of such tactics, but some officers also saw potential value, especially for terrifying colonial foes.⁵⁶ However, most artillerymen were disparaging of the idea, noting that it was wasteful of ammunition and produced a very limited physical effect when compared to concentrated fire.⁵⁷

Nevertheless, the Boer War did give birth to some useful ideas for the employment of heavy guns. Although Boer counter battery fire had been considered ineffective, this had generally been caused by faulty ammunition rather than poor shooting. Equipped with better fuses, heavy guns held the potential to inflict severe damage upon exposed field batteries, which would be unable to return fire due to the long range.⁵⁸ While this advantage would be most pronounced when fighting on the defensive, methods of using heavy guns to silence enemy artillery in the attack were also considered, as this would allow the lighter guns to concentrate on enemy infantry. There had been some examples of this in the Boer War, with the Battle of Alleman's Nek 11th June 1900 cited by one officer as a good example.

Our infantry had to cross an open plain to attack what looked like an impregnable position ... [but] the Boer guns were silenced by heavy guns; the 7th and 64th Field Batteries changed position under the cover of fire of our heavy guns, so as to enfilade the Boer position... This was practically the turning point of the action.⁵⁹

However, in contrast to these ideas, there was a distinct school of thought that was prejudiced against the employment of long range fire and saw little real future for heavy weapons. There were concerns that the extreme ranges encountered in South Africa were unlikely to be repeated anywhere else, especially in Europe. The atmosphere on the veldt had been remarkably clear, allowing observation at great distances, but in Europe this would not be the case. As well as hazy conditions, the presence of villages, towns and woodland on the continent would further reduce the visible range. Some officers countered this by pointing out conditions in parts of the Empire were similar to those that had been

⁵⁵ Major E.G. Nicolls, "The Type of Guns That Should Be Employed with Artillery in the Field" in *Minutes of the Proceedings of the Royal Artillery Institution XXVIII 1901-1902*, p.227

⁵⁶ Winston Churchill, "Impressions of the War in South Africa" in *Journal of the Royal United Services Institution*, 45(1) 1901, p.839; See also McHardy, "On Heavy Artillery" in *USM*, April 1904, pp.59-60

⁵⁷ Major L.H. Ducrot, "Guns in South Africa" in *Minutes of the Proceedings of the Royal Artillery Institution XXVIII 1901-1902*, p.204

⁵⁸ 2nd Lieutenant H.W. Wynter, "Has the experience of the war in South Africa shown that any change is necessary in the system of field artillery fire tactics (in the attack as well as in the defence) in European Warfare?" in *Minutes of the Proceedings of the Royal Artillery Institution XXIX 1902-1903*, p.270

⁵⁹ Colonel F.G. Stone, "The Employment of Heavy Artillery in the Field" in *Journal of the Royal Artillery XXXV 1908-1909*, pp.2-3

found in South Africa, but the assertion that ranges in Europe would be so short as to devalue long range fire and limit the use of guns capable of employing it remained a constant theme throughout the era.⁶⁰

With many infantry officers seeing a limited role for long range fire in the future, forging links between the two arms proved difficult. This was further exacerbated by the unusual organisational position of the Heavy Artillery. Although the 60-pounder was a mobile gun capable of field operations, its size and weight meant that men of the Royal Garrison Artillery provided the crew. This caused the weapon to fall between two stools, being expected to perform in the field but not being manned by the Royal Field Artillery itself, and therefore occupying an anomalous position not entirely within the remit of either branch. The initial training of Royal Garrison Artillery troops was in manning fortifications and heavy weapons on the seacoast. Inevitably, this meant it took time to train the gunners in the skills needed for duties in the field, and early results were embarrassing. For example, after watching the heavy guns at work at Okehampton in 1905, the camp commandant Colonel W.E. Blewitt was scathing, noting their standard of fire discipline was little more than “elementary” and going on to state, “Seeing the batteries left the impression on my mind that they had been only taught to fire very slowly at a 6 foot target.”⁶¹ Furthermore, the size and slow speed of the heavy guns made them a burden on commanders during manoeuvres, where time was often of the essence. One gunner remembered how during the manoeuvres of 1903 “...it came to be a by-word not to get blocked by the ‘cow’ guns”.⁶² The danger of becoming stuck behind the slow moving weapons caused commanders to place them at the rear of marching columns, but this wasted much of their tactical value. By engaging enemy guns, the Heavy Artillery could be expected to open up the battle, but if they were too far to the rear of a column then either time would be lost bringing them forward, or they would be forced to deploy rapidly in a potentially inadequate position.⁶³ At the 1904 manoeuvres, an officer reported the deleterious effects this had had:

...the eight 4.7 inch guns... marched astern of the whole army corps when this was advancing by a single road, and, thanks to the drivers being on foot, they could not hurry to the front for action when fighting began and when the situation offered them a rare opportunity.⁶⁴

⁶⁰ Major H.A. Bethell, “Has the experience of the war in South Africa shown that any change is necessary in the system of field artillery fire tactics (in the attack as well as in the defence) in European Warfare?” in *Minutes of the Proceedings of the Royal Artillery Institution XXIX 1902-1903*, p.137

⁶¹ Royal Artillery Museum [Hereafter referred to as RAM], School of Gunnery Reports 1905-1913, pp.7, 12

⁶² Major P. De S. Burney, “The Role of Heavy Artillery: Its Employment in the Field and Its Consequent Position on the March” in *Journal of the Royal United Services Institution* 53(1) 1909, p.503

Heavy artillery pieces were known as ‘cow guns’ due to the practice of using oxen to drag them in South Africa.

⁶³ *Ibid*, p.503; Stone, “The Employment of Heavy Artillery” in *JRA XXV 1908-1909*, p.14

⁶⁴ Brevet Lieutenant Colonel C.E. Callwell, “The Use of Heavy Guns in the Field in Europe” in *Minutes of the Proceedings of the Royal Artillery Institution XXXI 1904-05* p.5

An additional, unresolved problem was the lack of space on manoeuvres to really demonstrate the potential of heavy weapons. Artillerymen had soon identified that a distinct asset of these guns was the ability to deliver enfilade or oblique fire by virtue of their great range. Rather than being forced to engage directly against enemy lines, they could be pushed out to a flank, enabling their fire to rake the foe at an angle. *Combined Training* picked up on the value of this idea and identified it as a key role of heavy artillery.⁶⁵ However, while this was a fine tactical idea, implementing it in the cramped confines of the manoeuvre areas proved to be difficult.⁶⁶ Some success was achieved in the 1906 manoeuvres at Aldershot, where heavy guns enfiladed a defensive position considered to be impregnable from the front, but problems in achieving this kind of effect and having it recognised on manoeuvres remained throughout the period.⁶⁷ By deploying at great distances and out of sight of much of the army, Heavy Artillery struggled to have its work recognised by the umpires. Judging the effect of long range fire from heavy guns during manoeuvres could prove problematic, especially as the high pace of the exercises meant that targets were often fleeting.

While the quality of battery training amongst the gunners improved markedly over the period, there was little matching development of their role at manoeuvres. With just four guns assigned per division, the infantry rarely had the opportunity to train with the heavy pieces. General Belfield, commanding 4th Division complained in 1908:

One is not blessed in the Fourth Division with having a heavy battery, except for a very short period in the year, and then one must do one's best to try and ascertain how best to employ it.⁶⁸

The situation showed little sign of improvement throughout the pre-war years. Although the batteries were able to develop greater accuracy and skill on the field, in terms of work alongside the infantry, little advancement was made. The commanding officer of the 35th Heavy Battery noted with disappointment in 1909 that "... the use of Heavy Artillery has gradually become neglected, until at the last manoeuvres it was scarcely (advisedly) used at all."⁶⁹

The devaluing of long range fire in the aftermath of the Boer War left the role of heavy artillery poorly defined, and the experience of the Russo-Japanese War did little to clarify the issue. The great use of earthworks and difficulty in taking them showed a need for heavier guns to smash trenches, but as one Russian participant noted "...flat-trajectory weapons would be useless... These conditions

⁶⁵ *Combined Training 1905*, p.117

⁶⁶ Stone, "Employment of Heavy Artillery" in *JRA XXV 1908-1909*, pp.11-12

⁶⁷ *Ibid*, p.7-8; Major W.H.F. Weber, "A Plea for the Better Representation of the Artillery Arm at Manoeuvres" in *Journal of the Royal United Services Institute* 59(2) 1914, pp.248-252

⁶⁸ Comment on Stone, "Employment of Heavy Artillery" in *JRA XXV 1908-1909*, p.16

⁶⁹ Burney, "The Role of Heavy Artillery" in *JRUSI*, 53(1) 1909, p.503

imperatively demand the employment of high angle fire.”⁷⁰ Designed as a long range man killer and counter battery weapon, the 60-pounder was not the type of gun that could break down complex earthworks. Historian Robert Scales has been critical of this aspect of the design of the gun and compares it unfavourably with heavy German weapons that were designed to destroy material.⁷¹ However, this criticism is somewhat unfair. The British rearmed in the aftermath of the Boer War in the anticipation of using the weapons in a future colonial struggle against a wide variety of potential opponents, whereas the Germans could equip their batteries with the express intention of using them to destroy French and Belgian fortifications in Europe.⁷² The colonial duties of the British required them to possess weapons that would be appropriate for deployment around the globe, and thus the 60-pounder was designed to be suitable in a variety of conflicts. The British were well aware of the need to engage trenches and fortifications, and never intended the 60-pounder to be a substitute for the howitzer, which was expected to deal with enemy earthworks. Indeed, despite Scales’s criticisms, the British kept the 60-pounder gun in service with minor modifications throughout the First World War, where it was principally used as a counter battery weapon, and it remained in use up until 1944. In 1914 they served the British well, with John Terraine considering the 60-pounder to be of “inestimable value” in the opening battles.⁷³

A more valid criticism is that the British did not develop a clear enough doctrine for usage of their heavy artillery once they had been equipped with it. The guns were in short supply, with just a four gun battery being assigned per regular division at the outbreak of war, reflecting the fact the B.E.F. was not a mass army on the continental model.⁷⁴ Although the old idea of using ‘sniper’ guns had long since fallen from favour, a section of two 60-pounders was still seen as the main tactical unit, derived from the old Boer tactics of dispersion in the face of greater numbers of enemy guns.⁷⁵ Ideas of the tactical employment of heavy artillery were rooted in the experiences of South Africa. *Field Service Regulations 1909* described its role in action in the following terms:

Its principal duty is to engage shielded artillery with oblique fire, to enfilade targets which the lighter guns can only reach with frontal fire, to search distant localities in which supports or reserves are concealed, to destroy buildings or other protections occupied by the enemy, and in the final stage to support the assault by fire converging on the most important points.⁷⁶

⁷⁰ General Staff Translation, “The Russo-Japanese War: Opinions and Criticisms By Those Who Took Part in It” in *Journal of the Royal United Services Institute* 53(1) 1909 p.789

⁷¹ Scales, “Artillery in Small Wars”, pp.262-263

⁷² McHardy, “Heavy Artillery” in *USM* April 1904, p.54

⁷³ Terraine, John, *Mons: The Retreat to Victory* (Ware, Wordsworth Editions, 2000) p.28

⁷⁴ Fardale, Martin, *History of the Royal Regiment of Artillery, Western Front 1914-18* (London, Royal Artillery Institution, 1986) p.385

⁷⁵ Callwell, “Heavy Guns in the Field”, in *RAI XXXI* 1904-1905, p.5

⁷⁶ War Office, *Field Service Regulations Part 1: Operations 1909 (Reprint: 1914)* (London, H.M.S.O.) p.17

The tactics suggested by the manuals were fundamentally sound, and some of these valuable ideas had been further developed in the pre-First World War period, particularly the potential use of heavy guns to render enemy entrenchments untenable via enfilade fire, and the use of long range weapons to eliminate lighter field guns.⁷⁷ The lessons of the Boer War on the employment of heavy guns may have been deceptive regarding the extreme range at which they could engage in the clear atmosphere of South Africa, but in many respects the British grasped the potential value of using them to deal with enemy artillery and sweep rear areas. The examples themselves were not misleading, but translating them into effective practice proved difficult in the cramped confines of British manoeuvring areas. Indeed, the greatest weakness in the B.E.F. regarding heavy artillery was a lack of numbers and a failure to integrate the guns into wider tactical thinking. Instead, these valuable weapons were often neglected in manoeuvres due to their slow speed and typically left to their own devices. For these reasons, the links between infantry and Heavy Artillery saw little improvement during the 1899 – 1914 period. Instead, the British Army of 1914 relied upon the Field Artillery for infantry support, with the heavy guns remaining as specialist pieces with limited, specific roles that were poorly understood by the infantry.⁷⁸

Despite these problems, the experience of the Boer War and the subsequent equipping of the artillery with heavy guns proved to be a valuable step. For example, while the weapons may be criticised for not matching their German equivalents, they were vastly superior to those possessed by France. The French placed almost complete faith in their powerful 75mm field gun, and neglected heavy weapons until the very eve of the war. In 1912, British observers were distinctly unimpressed with French attempts to put heavy guns into the field, noting that of four types of guns deployed at manoeuvres, two were at an experimental phase, while the other two were antiquated weapons dating from 1878 and 1884 respectively.⁷⁹ By the time serious efforts were made to equip with heavy guns, it was too late for the French Army and confusion reigned over their usage. A French officer noted in 1913:

We have heavy artillery. Do we have a doctrine for the employment of this heavy artillery? It does not appear so. Ask one hundred officers picked at random of all ranks and arms: “What is heavy artillery? What is it used for? How is it used? Whom does it support? Where is it positioned? The odds are 100-1 that you get no answer or that the same question will be asked of you.⁸⁰

Douglas Porch has identified the failure to equip with heavy artillery as a critical flaw in the French Army of 1914, with their shorter ranged field guns unable to deliver counter battery fire against the

⁷⁷ Bailey, J.B.A, *Field Artillery and Firepower*, (Annapolis, Naval Institute Press, 2004) p.229

⁷⁸ *Ibid*, p.232

⁷⁹ General Staff, *Report on Foreign Manoeuvres in 1912* (Uckfield, Naval and Military Press, 2008 reprint) p.28

⁸⁰ Quoted in Porch, Douglas, *The March to the Marne: The French Army 1871-1914* (Cambridge, Cambridge University Press, 2003) p.236

long range German weapons, and consequently being smashed to pieces by shelling from heavy German batteries.⁸¹ Pre-war belief in France that it was not worth the effort in firing beyond visible range proved to be a serious tactical weakness in 1914 and cost their artillery dearly.⁸² Conversely, the Germans had long anticipated the need for heavy howitzers to destroy fortifications in Belgium and France, and were thus well equipped with long range weapons that proved highly effective when deployed in a field role in 1914.

While the Royal Artillery had experienced a reaction against the extreme ranges encountered in South Africa, this school of thought did not gain ascendancy and produced limited overall effect. The artillery range tables of 1914 were identical to those of 1902, suggesting that there was still official belief in the value of long range fire throughout the period. While flaws remained in the usage of heavy guns with the wider army, the lesson of the Boer War that artillery could engage effectively at long range remained. Whereas the French placed complete faith in short range action, the British did not forget the example of South Africa and thus were somewhat better prepared for the tactical problems of artillery combat in 1914, although were not so well equipped as the Germans in this regard. “Long Tom” had been an unpleasant surprise for the British, but the artillery had adapted well to the expectation of long range action and proved a tenacious foe for the Germans in the opening weeks of the First World War. Despite its limited numbers, the 60-pound gun proved a valuable asset, being the only weapon in the British arsenal that had the range to engage the devastating 15cm howitzers deployed by the Germans.⁸³ However, the 60-pounder may have been even more useful had greater efforts been made to forge closer links between the Heavy Artillery and the infantry in the years prior to the outbreak of war, and the failure to capitalise upon this must be counted as an opportunity missed by the British Army.

Concealment

On the eve of the Boer War, an expectation held throughout the British Army was that any major battle would begin with a preliminary artillery duel. The opposing artillery would deploy in the open and attempt to pound one another into submission, the winner then having a virtually free rein to distribute his fire across the battlefield, with the loser forced to shelter his surviving guns and employ them as and when possible. As with much thinking within the Royal Artillery, this idea was drawn from the Franco-Prussian War, where German artillery had typically overwhelmed the French guns before the battle was joined in earnest.⁸⁴

⁸¹ Ibid, p.vii

⁸² Ibid, p.233

⁸³ Ibid, p.242

⁸⁴ Ibid, pp.218-219

However, the Boers were not wedded to any European doctrine and had no intention of conforming to this unrealistic expectation. Although the Boers possessed certain qualitative advantages over the British artillery, in numerical terms they were hopelessly outmatched and faced certain destruction if they attempted to engage the British in an open duel. Instead, the Boer gunners chose to take advantage of the smokeless powder that gave their rifle armed comrades such an unexpected advantage. Fighting from concealed positions, with no tell tale smoke puffs to indicate the direction of fire, the Boer artillery proved incredibly difficult for the British gunners to locate. This failure to track down Boer artillery was perhaps even more humiliating for the British than being outranged. Whereas the gunners could cite material weaknesses for being unable to reply to long range fire, in terms of silencing a concealed enemy they had no such excuse.

As well as firing from cover, the Boers used additional methods to frustrate attempts to knock out their weapons. Multiple positions were usually prepared for the guns, so that if the British located one, the gun could be moved to another and resume fire. Entrenchments and emplacements for the gun and crews were considered essential, and the Boers were not too proud to shelter in them if located, waiting for the British fire to lift before manning their weapons once more.⁸⁵ One Boer gunner ruminated that without them "...it is probable not a man of us would have been left..." owing to volume of fire the numerically superior British guns could deliver.⁸⁶ Simple tricks were also employed to confuse the British, including firing a concealed smokeless gun from one position and simultaneously detonating a flask of black powder at a separate, false point. The eye was inevitably drawn to the smoke discharge, causing the British to waste their fire at a decoy position while the real gun continued to operate unmolested. This ruse proved to be so prevalent that attention was called to it in an official memo issued by Lord Roberts.⁸⁷

During the early part of the war, the British employed observation balloons in an attempt to locate the position of Boer trenches and guns. Balloons proved most useful around Ladysmith, where the siege lines and static nature of Boer positions made them a potentially valuable reconnaissance asset. However, in terms of locating enemy guns, results were disappointing. Lieutenant Colonel Henry Rawlinson reported the difficulties associated with observing Boer guns from the air, noting that "...[it is] difficult to spot guns from the Baloon [sic] as it rocks about so and keeps revolving round so much that one cannot keep ones glasses steady."⁸⁸ A further major problem was the inability of observation balloons to send rapid messages to friendly troops stationed below, with attempts to use heliographs

⁸⁵ *Elgin Commission*, Vol.2, Q18522, p.362

⁸⁶ Carl van Heister, "The Orange Free State Artillery" in *Journal of the Royal United Services Institute* 45(1) 1901, p.189

⁸⁷ TNA WO 105/40 "Further Notes for Guidance in South African Warfare", 5th February 1900

⁸⁸ Quoted in Carver, Field Marshall Lord, *The National Army Museum Book of the Boer War*, (London, Pan Books, 2000), p.22

from balloons proving a failure.⁸⁹ While aerial reconnaissance had uses in the Boer War, it did little to solve the problem of locating Boer guns.

For the British, the failure to locate and inability to deal with the outnumbered but concealed Boer artillery came as a profound shock. Sir George White noted that at no point during his combat experience did he believe a Boer gun had been knocked out by counter battery work, commenting “It has been a lesson to me that in modern warfare it is pretty hard to dismount an enemy’s guns.”⁹⁰ Even the most skilful gun crews had problems engaging hidden Boer guns. J.M. Grierson remembered:

The Boers developed a truly marvellous skill in concealing the position of their guns; the officer who commanded the best-shooting battery at Okehampton in 1899 told me that, in all the actions up to occupation of Kroonstad, he had never been able to range on a Boer gun, and at the passage of the Vet River one of our batteries was for hours under the fire from a long range gun which it could not locate...⁹¹

Although concealed Boer artillery fire generally proved to be a source of indignation rather than injury for the British, the refusal of the Boers to fight in the open rendered the belief in the opening artillery duel a fallacy.⁹² In combination with much longer artillery ranges, this represented a challenge to pre-war tactical ideas and training methods, which had anticipated a straightforward engagement over open sights at relatively short distances. Pre-war training had reflected this expectation, with artillery aiming for rapidity and accuracy at visible targets and achieving satisfactory results.⁹³ Indeed, the Royal Artillery, with the notable exception of the R.G.A, had taken a somewhat perverse pride in its unscientific methods towards gunnery and ranging, relying on the kind of ‘dash’ demonstrated by the unfortunate Colonel Long to achieve results in battle.⁹⁴

The Boer War shook faith in these concepts and caused a considerable degree of introspection amongst the gunners. A particular source of concern was that a contest between guns in the open and guns in cover was clearly an unequal one. Although the Boer guns had been hampered by poor ammunition, the potential damage that could have been inflicted upon exposed British batteries was well recognised. For example, at the Battle of Vaal Krantz, several batteries of British artillery deployed in the open, and were enfiladed by a Boer “Long Tom”, with only faulty fuses saving the

⁸⁹ Ibid, p.23

⁹⁰ *Elgin Commission*, Vol.2, Q14817, p.153

⁹¹ TNA WO 108/184 Notes By Colonel J.M. Grierson R.A on Return from South Africa

⁹² Wynter, “Experience of War in South Africa”, in *RAI XXIX* 1902-1903, p.275

⁹³ *Elgin Commission*, Vol.2, Q17928, p.333

⁹⁴ Bailey, *Field Artillery*, p.213

British guns from severe casualties.⁹⁵ Charles Callwell noted the changed circumstances of warfare meant that:

A single well concealed hostile gun will wipe out a whole battery if this is brought into action in a bungling fashion; cases have occurred when even a pom-pom – not a formidable weapon – has given a battery in the open a lot of trouble.⁹⁶

A fellow gunner echoed these sentiments in a blunter fashion, stating simply that to deploy in the open against hidden artillery was “little short of madness”.⁹⁷ The idea of utilising cover and concealed positions also found favour outside the Royal Artillery. Lord Roberts cited training in concealment of guns as necessary for improvement of the arm as a whole, and his views were echoed by Ian Hamilton and Charles Warren.⁹⁸ Warren offered particularly strong opinions, noting “Concealment of guns both on attack and defence is now a matter of primary importance, and in defence can be brought to such perfection that it is almost impossible to locate them.”⁹⁹

However, reversing the tactics of the previous thirty years was not a simple task. While the idea of fighting from behind cover had been mooted prior to the Boer War, the difficulty in achieving accuracy from such positions had discouraged its use.¹⁰⁰ *Field Artillery Training* editions for 1904 and 1906 both emphasised the use of cover for guns, but translating this into training was more difficult, and required devising new methods of delivering accurate, indirect fire. This work inevitably took time to bear fruit.¹⁰¹ For example, in 1903 Lord Roberts noted at a post manoeuvres conference, “I was disappointed to find the guns were so much exposed. There were exceptions, but on the whole there was practically little attempt at concealment.”¹⁰² In 1904, John French wrote in an Aldershot training memorandum “We can all remember how splendidly the Boer guns were concealed and how it was often utterly impossible to locate them, at any rate for a long time...I trust Artillery officers will give the matter their serious consideration.”¹⁰³ Nevertheless, there were improvements over time, especially after the introduction of superior equipment in the form of new field and horse artillery guns. In 1906, Ian Hamilton had great praise for the artillery of Southern Command, writing,

⁹⁵ Major C.E. Callwell, “Artillery Notes From the Veld”, in *Minutes of the Proceedings of the Royal Artillery Institution*, XXVIII 1901-1902, p.286

⁹⁶ *Ibid*, p.286

⁹⁷ Wynter, “Experience of War in South Africa”, in *RAI* XXIX 1902-1903, p.277

⁹⁸ *Elgin Commission*, Vol.2, Q13247, p.66; Q13941, p.111; Q15850, p.233

⁹⁹ *Ibid*, Q15850, p233

¹⁰⁰ Headlam, *History of the Royal Artillery*, Vol.III, p.515

¹⁰¹ Headlam, *History of the Royal Artillery*, Vol.II, pp.61, 154-155

¹⁰² Quoted in Lieutenant Colonel J.D.P DuCane, “Cover and Co-Operation” in *Minutes of the Proceedings of the Royal Artillery Institution* XXX 1903-04, p.358

¹⁰³ TNA WO 27/503 Memorandum on the Training of the 1st Army Corps, 28th September 1904

“So great has been the progress made during the past summer in the use of indirect laying and in the art of entrenching, that the methods of 1904 are already, to a great extent, obsolete.”¹⁰⁴

The Russo-Japanese War appeared to offer confirmation of the value of cover. The Japanese artillery was considered materially inferior to that of the Russians, but was better trained and more willing to fight from concealed positions. Conversely, Russian gunners went to war with tactics similar to the pre-Boer War British, expecting to use their weapons at relatively close range and being prepared to sacrifice guns if necessary.¹⁰⁵ Against the Japanese this doctrine was costly and ineffective, with exposed Russian batteries being knocked out in short order. A British journalist saw a Russian battery attempt to redeploy across open ground at the Battle of the Yalu River 30th April – 1st May 1904, only to be caught by Japanese fire after moving around 200 yards. The journalist noted “...the whole of the teams, men, guns, and everything else were all piled up at the end of that distance.”¹⁰⁶ Observers on both sides were shocked by the ferocity of artillery fire. A British attaché with the Russians reported to the Army Council that; “The present shrapnel fire with Q.F guns is such that no troops can face it in the open nor can Artillery serve their guns under it. Indirect fire seemed to be the only practicable method.”¹⁰⁷ A French officer noted that unless covered approaches were available, artillery generally only moved at night, commenting, “Invisibility has become an essential condition; this is the dominating fact of the whole war.”¹⁰⁸ After the initial shock of combat the Russians adapted methods of indirect fire, and, as in the Boer War, well concealed guns proved “uncommonly difficult” to silence.¹⁰⁹ A British observer noted how on one occasion the Japanese had fired over 1,000 shells in an attempt to eliminate a hidden Russian battery, without success.¹¹⁰ At another engagement, it was reported that the Japanese shelled Russian positions for 15 hours prior to an attack, only for hidden Russian guns to unmask and overwhelm the infantry once they began their advance.¹¹¹

The experience of the artillery in the Russo-Japanese War seemed largely to validate the lessons of concealment that the British had drawn from South Africa. However, even as the war in Manchuria was in progress, a movement against the use of concealed positions for artillery was beginning to gather force in Britain. The root of this reaction lay in the problem of achieving accuracy from a covered position. Reflecting prior prejudices against scientific gunnery, there was some disquiet amongst the artillery over the need to employ several “strange appliances” to achieve effective

¹⁰⁴ Lieutenant General Ian Hamilton, “The Training of Troops During 1906” in *Journal of the Royal United Services Institute* 50(2) 1906, p.1519

¹⁰⁵ TNA WO 33/350 – Reports on the Campaign in Manchuria, pp.11-12

¹⁰⁶ W. Kirton, “With the Japanese on the Yalu” in *Journal of the Royal United Services Institute* 49(1) 1905, p. 277

¹⁰⁷ TNA WO 106/39 – Lt. General Sir M. Gerard to Army Council, 9th September 1904

¹⁰⁸ General De Negrier, “Some Lessons of the Russo-Japanese War” in *Journal of the Royal United Services Institute* 50(1) 1906, p.805

¹⁰⁹ TNA WO 33/350 – Reports on the Campaign in Manchuria, p.15

¹¹⁰ *Ibid*, pp.13-14

¹¹¹ Negrier, “Lessons of the Russo-Japanese War” in *JRUSI*, 50(1) 1906, p.808

indirect fire, while some felt the emphasis on technical matters threatened to overwhelm tactical considerations.¹¹²

The greatest tactical conundrum which seemed to militate against the use of concealed positions was the need to hit fleeting targets. While the South African experience had shown the resilience of hidden guns, the conflict had also highlighted the fact that in battle against opponents who made the most of cover, opportunities for effective fire were likely to be brief and had to be seized immediately. This required a skilful gun crew, able to rapidly acquire the range and fire accurately. As with attempts to improve infantry musketry, training methods were revamped with moving and “surprise” targets introduced to test the reactions of the gunners. Initially the results were somewhat farcical. When Sir Evelyn Wood was asked if surprise targets had made a difference in training, he replied,

So much so that this year within a month or so, I have seen an artillery officer so taken by surprise that he has said: “1,600 yards, 1,200 yards, 1,400 yards. As you were.” and the target escaped.¹¹³

However, the careful calculations and positioning required for delivering indirect fire seemed incompatible with seizing such fleeting opportunities. The paradox between taking covered positions to protect the guns and yet still being able to deliver sudden and effective fire when necessary was a serious problem. At Okehampton it was noted that time was a factor not considered enough in tactics, the camp commandant complaining:

A battery that comes into action under cover, and takes half an hour or more to open fire, with no certainty that it will be effective, when the G.O.C requires artillery fire at once, does wrong.¹¹⁴

Reacting against the somewhat ponderous methods necessary for effective indirect fire, some officers began to denigrate the use of concealed positions, instead suggesting that rapid, direct fire was bound to be more damaging to the enemy than slow, deliberate indirect shooting. For example, artilleryman Major J.F. Cadell argued that the addition of shields to the latest field guns gave them great protection against enemy fire, allowing them to fight in the open once more.¹¹⁵ Cadell’s views were reminiscent of pre-war thinking, arguing the role of artillery was to help secure victory regardless of the cost, writing:

¹¹² Headlam, *History of the Royal Artillery*, Vol.II, p.61

¹¹³ *Elgin Commission*, Vol.1, Q4346, p.185

¹¹⁴ RAM, *School of Gunnery Reports 1905-1913*, p.9

¹¹⁵ Major J.F. Cadell, “Theories as to the Best Position for Quick-Firing Shielded Field Artillery” in *Journal of the Royal United Services Institute* 50(1) 1906, p.1478

To remain in action all day and fire off thousands of rounds over a hill is not an object in itself, even if you only lose three horses; what is required is a victory, even if obtained at some expense, by the artillery.¹¹⁶

Despite the examples of the Boer War and the Russo-Japanese War, such views found support. Indeed, the Russian adoption of indirect fire was held to have been greatly adverse to their fighting spirit, discouraging them from taking risks and thus leaving their infantry unsupported at critical moments.¹¹⁷ Even reformist officers such as Ian Hamilton expressed a certain degree of disquiet over the way in which artillery in Manchuria had settled into semi-permanent concealed positions. Hamilton commented that in the latter stages of the war, the Japanese were spending so long concealing and positioning their field artillery that “..they become almost as immobile as guns of position. They take far too long in getting in or out of their pits, and I think the habit of entrenching... is tending to lessen their initiative and audacity.”¹¹⁸ This loss of spirit was seen as potentially damaging to the army as a whole. Infantryman Captain P.A Charrier ruminated; “The doctrine held by any Army of avoiding losses, when carried too far, has invariably ended in defeat, and it seems to me that the use of indirect fire, carried too far, can only lead to the same result.”¹¹⁹ Similar views were also expressed at higher levels, the Inspector General of Forces writing in 1906:

As the reports of our attaches in Manchuria became available it soon made itself apparent that protection was only one means to an end, and that to attach too much importance to it would be disastrous to the spirit of the arm; and Artillery officers have come to recognize, from study of the subject and experience as to the limitations of indirect fire, that its use is frequently incompatible with affording effective support to the other arms and inflicting loss on the enemy.¹²⁰

With the pendulum beginning to swing against the use of concealed positions, the attention of the Royal Artillery was drawn towards the fire tactics of the French. In 1897, the French had introduced the famous 75mm “Quick Firing” gun to their field army, a weapon which possessed an unprecedented rate of fire due to a recoil absorbing system that eliminated the need to run the gun back into position after firing. As well as providing an exceptionally stable fire platform, the gun also benefited from an automatic fuse setting machine to further increase the speed which it could be loaded and fired. Taking advantage of this rate of fire and placing faith in their gun shields to keep them protected, French tactics emphasised achieving annihilating fire effect at short to medium

¹¹⁶ Ibid, p.1489

¹¹⁷ Ibid, pp.1479-1480

¹¹⁸ Hamilton, Ian, *A Staff Officer's Scrap Book During the Russo-Japanese War* (London, E. Arnold, 1908) Vol.1, p.225

¹¹⁹ Captain P.A. Carrier, “Correspondence Re: Theories as to the Best Position for Q.F Shielded Artillery” in *Journal of the Royal United Services Institute* 51(1) 1907, p.109

¹²⁰ TNA WO 163/12 Inspector General of Forces Report for 1906, p.30 (Hereafter IGF Report)

range.¹²¹ The culmination of French artillery tactics was the *rafale*, a short but intense burst of fire that aimed to overwhelm the target through ferocity and volume rather than precise accuracy.¹²² British observers were often favourably impressed with these tactics, which stood in stark contrast to the slower, more deliberate methods of fire in the Royal Artillery. Charles à Court Repington, the influential military correspondent of *The Times*, wrote to Ian Hamilton on the subject, arguing, “In the 12 minutes which it takes for one of our batteries to range laboriously, a French battery will wipe out a British brigade.”¹²³ Other officers echoed these opinions, feeling that the French had truly grasped the technical potential of Q.F guns, whereas the British emphasis on slow, precise methods did not take advantage of the vastly improved rate of fire now available to them.¹²⁴

Interest in French fire tactics grew as the two nations forged greater military links in the pre-First World War period. By 1910, Sir John French was expressing concerns that British artillery tactics were becoming out of date. German authorities were critical of British methods, and French himself noted:

My opinion is that our Artillery compared with the French is slow in ranging and in opening fire for effect, and that the ever-growing complication of our method is tending to surpass the capacity of the average battery commander and to become foreign to the atmosphere of the battlefield.¹²⁵

In 1911, it was observed that some gunners who had attended manoeuvres in France were organising and training their batteries on French lines without official sanction.¹²⁶ There were also concerns that the reputation of the 75mm was resulting in a tendency to denigrate the 18-pounder in comparison, leading to calls for a programme of artillery rearmament to produce guns that could match the French weapons.¹²⁷ Ultimately, the growing disquiet with British compared to French tactics resulted in a series of trials in 1911 to ascertain if an adoption of French methods could improve the firepower of a British field battery. The French four gun organisation and methods of rapid ranging were tested, but the results were somewhat inconclusive and a unanimous decision on their practicality was not reached.¹²⁸ The main result of the tests was to reveal that the 18-pounder gun had a number of technical defects that prevented it replicating French methods effectively. It was found there was a lack of steadiness in the carriage which necessitated relaying the gun from round to round, while the

¹²¹ Headlam, *History of the Royal Artillery*, Vol.II, p.193 (Footnote)

¹²² ‘Rafale’ literally translates to ‘squall’ in English, but in French it implies sudden, violent winds.

¹²³ Liddell Hart Centre for Military Archives, Hamilton Papers 7/3/14/4 - Charles Repington to Ian Hamilton, 1st November, 1910

¹²⁴ For example, Captain C. Holmes Wilson, “The Employment of QF Artillery in the Field” in *United Service Magazine*, May 1904, pp.192-198

¹²⁵ TNA WO 163/16 IGF Report for 1910, p.224

¹²⁶ TNA WO 163/17 IGF Report for 1911, pp.495-496

¹²⁷ TNA WO 163/17 Ibid, p.498; TNA WO 163/18 IGF Report for 1912, p.587

¹²⁸ TNA WO 163/17 Report of a Committee appointed to carry out certain Field Artillery trials on Salisbury Plain, pp.47-65

need to set the fuse on each shell by hand could not keep up with very high rates of fire.¹²⁹ The Chief of Imperial General Staff noted that the existence of these technical issues rendered the argument over the adoption of French methods largely irrelevant until they were corrected.¹³⁰ Financial considerations prevented this occurring before the outbreak of the First World War, and technical limitations meant that French ideas were widely admired but difficult to put into actual practice.

The technical inability of the British guns to deliver the kind of fire that the French used meant that the Royal Artillery never became completely wedded to the idea of direct fire. Instead, throughout the period there was an ongoing debate on the value of indirect versus direct methods, with both camps enjoying periods of ascendancy. As previously discussed, the British Army of the Edwardian period was very reluctant to adopt any official doctrine, and instead preferred to place emphasis on tactical flexibility. This was especially true of the field artillery. As early as 1907, the Inspector General of Forces had complained that there was an absence of uniformity in artillery training, and had requested an official pronouncement from the General Staff regarding the merits of direct versus indirect fire.¹³¹ However, little had been done by the following year, and it was noted that in some commands nothing but indirect fire was employed, while in others the opposite was true.¹³² At no point did the Royal Artillery officially declare itself dedicated to either method, and indeed on the eve of the First World War the emphasis remained on flexibility with regard to choice of position, with the French observing in 1914 that although British manuals were excellent, British doctrine was non-existent.¹³³ A number of historians have identified the ongoing debate regarding indirect versus direct fire in the British Army. For example, in his history of the Royal Artillery, former gunner Sir John Headlam considered the 1904 edition of *Field Artillery Tactics* “the high water mark of South African inspiration” and suggested that a gradual shift away from concealed methods began from this point.¹³⁴ Phillip Towle has also identified a vigorous debate over the covered versus open positions, suggesting that the influence of middle ranking artillery officers in favour of concealed positions was becoming more prominent from 1910 onwards, and gradually swung the General Staff in their favour.¹³⁵ Most recently, J.B.A Bailey has noted that the Royal Artillery was struggling between competing ideas of direct and indirect fire throughout the period, with indirect fire popular amongst battery commander, but direct fire having more official sanction by 1914.¹³⁶ The lack of historical consensus on Royal Artillery doctrine of the period mirrors the lack of doctrine that existed in the arm itself.

¹²⁹ TNA WO 163/17 Ibid, p.51

¹³⁰ TNA WO 163/17 Ibid, p.45

¹³¹ TNA WO 163/13 IGF Report for 1907, pp.79-80

¹³² TNA WO 163/14 IGF Report for 1908, pp.159-160

¹³³ Bidwell & Graham, *Firepower*, p.15

¹³⁴ Headlam, *History of the Royal Artillery*, Vol.II, pp.62, 156

¹³⁵ Towle, Phillip, “The Influence of the Russo-Japanese War on British Military and Naval Thought 1904-1914” PhD, University of London, 1973, pp.112-115

¹³⁶ Bailey, *Field Artillery*, pp.230-231

It was perhaps fortunate for the Royal Artillery that it did not completely adopt French methods. Although the 75mm was a superb gun, the French belief that it could fire direct at relatively short range was anachronistic and was revealed as a dangerous fallacy once war had broken out. Conversely, the tactical lessons the Royal Artillery had learned in South Africa, and which had been confirmed by the Russo-Japanese War, were highly relevant to combat in 1914. Finding themselves outnumbered and outgunned by the Germans, it was important that the British adopted concealed positions to avoid being swept away by sheer weight of fire. Unfortunately, while never abandoned, the importance of concealment had become somewhat diluted in the intervening years. Historian Robert Scales has argued that the serious losses suffered by the Royal Artillery at the Battle of Le Cateau proves the weakness of British artillery tactics compared to those of the Germans, noting that a number of B.E.F. batteries occupied open positions and were punished by concealed German guns.¹³⁷ However, of the three British divisions engaged, 3rd, 4th and 5th, it was the artillery of 5th Division who chose to occupy forward positions, ostensibly to inspire the infantry.¹³⁸ The artillery of 3rd and 4th Division chose to deploy further back in more covered positions and suffered relatively minor casualties, with certain batteries eluding German attempts to locate them throughout the entire battle.¹³⁹ The fact that the artillery of the B.E.F. divisions chose to adopt such distinct tactics at Le Cateau is more illustrative of the lack of formal artillery doctrine rather than inherent tactical weakness.

The Boer War had demonstrated the value of concealed positions, and although interest in such tactics waxed and waned, the use of cover remained an important part of Royal Artillery training throughout the period. The growth of interest in French methods of direct fire from open positions was largely regressive, and if it had been adopted as a whole by the outnumbered artillery of the B.E.F., the results of early battles against the Germans could well have proved disastrous. Lack of formal doctrine on the type of position to employ remained a consistent weakness, but emphasis on flexibility at least ensured the British were not wedded to a costly and ineffective tactical system such as the French. The lessons of the Boer War had faded somewhat by 1914, but the experience of fighting against the numerically superior and more heavily armed German artillery soon highlighted the need to adopt the methods the Boers had made famous on the veldt. Fortunately for the British, although the popularity of concealment had declined to an extent, it had never been abandoned and was still considered an important element of training up to the eve of the First World War.¹⁴⁰ Although the gunners had much to learn about the new conditions of warfare, the lessons of concealment from the Boer War

¹³⁷ Scales, "Artillery in Small Wars", p.323

¹³⁸ Holmes, Richard, *Riding the Retreat: Mons to the Marne 1914 Revisited* (London, Pimlico, 2007) p.179

¹³⁹ Becke, A.F., *The Royal Regiment of Artillery at Le Cateau, 26 August, 1914* (Uckfield, Naval and Military Press, 2003 reprint) p.53

¹⁴⁰ TNA WO 163/20 IGF Report for 1913, pp.346-347

were an important element of future tactics, and provided a valuable asset for future artillery development.

Field Howitzers

While the delivery of indirect fire from concealed positions was difficult for guns designed to fire on a flat trajectory, the British Army possessed a weapon specifically designed to carry out this role in the form of the howitzer. Field howitzers were a relatively new addition to the arsenal of the Royal Artillery, having only been introduced to the arm in 1896.¹⁴¹ Prior to the Boer War they had only seen action during Kitchener's campaign in the Sudan, where their high explosive shells had been used to bombard the Mahdi's tomb. The fearful destruction created by these lyddite shells had attracted favourable notice, and much was expected of them in the future.¹⁴²

Unfortunately lyddite proved to be something of a disappointment in the Boer War. Although it created spectacular explosions and large craters when it worked, it suffered from persistent malfunctions, with one gunner estimating that no more than 60% of his lyddite shells had detonated properly.¹⁴³ Furthermore, despite being visually impressive when it exploded, in terms of inflicting actual casualties its effects were noted as being "exceeding local".¹⁴⁴ Artillerymen brought up with the idea that the guns were there to be man-killers were especially critical of this apparent failure, one arguing shortly after the war that, "I think lyddite [shells] are of so little value for heavy guns that I should myself be quite prepared to make them entirely auxiliary projectiles...".¹⁴⁵

Nevertheless, the Boer War had shown the need for an explosive shell to engage enemy earthworks, and a number of infantry officers at the Elgin Commission made reference to the potential value of common shell for dealing with trenches.¹⁴⁶ Common shell was old fashioned ammunition that was in some ways the forerunner of high explosive, but it had been largely phased out of the artillery due to its ineffectiveness. It had been found to lack a bursting charge large enough to damage hard targets and had failed to produce enough segments to cause heavy losses to troops in the open, and artillerymen were perplexed and frustrated by the call for its return.¹⁴⁷ However, in delivering a rebuttal to the common shell arguments, artilleryman Major-General Sir G.H. Marshall unwittingly highlighted the key issue behind the revival of interest in the old ammunition when he noted;

¹⁴¹ Wynter, "Experience of War in South Africa", in *RAI XXIX* 1902-1903, p.267

¹⁴² Headlam, *History of the Royal Artillery*, Vol.III, pp.243, 498

¹⁴³ TNA WO 108/266 'Detonation of Lyddite' – Major C.E Callwell's answer, p.10

¹⁴⁴ Inglefield, "Remarks on Artillery in South Africa", in *RAI XXXIX* 1902-03, p.506

¹⁴⁵ Comment on *Ibid*, p.521

¹⁴⁶ For example, *Elgin Commission*, Vol.2, Q15850 p.233; Q16313, p.254; Q16520, p.261

¹⁴⁷ See *Elgin Commission*, Vol.2, Q18533, p.362 for a rebuttal of the common shell argument.

I may say that the object of all field artillery ammunition is man-killing and not the damage of material... We do not attempt it, and not only that, but we do not profess in the Artillery to kill people who get underground, with time shrapnel.¹⁴⁸

In fact, howitzers and not common shell were the ideal solution to inflict damage upon a sheltering foe. Although lyddite fired from howitzers proved disappointing in South Africa, the combination of plunging fire and explosive detonation held the potential to scour trenches of their occupants as well as destroy emplacements and earthworks. Indeed, despite the limitations of the ammunition, where they had been well handled howitzers had proved extremely effective in this role. Some officers had much praise for the howitzer, although generally for its effect on enemy morale. Lord Methuen commented; “The lyddite shell did not come up to its reputation, but I always took one howitzer with me in the hills, as it terrified the enemy more than any other arm.”¹⁴⁹ Charles Warren felt that the assertion made by several Boers that they had no fear of lyddite was bravado and “mere fiction”, arguing that the effect had in fact been considerable.¹⁵⁰ This was particularly true in Natal, where the British had been forced to hammer through a series of entrenched Boer positions in a campaign which resembled the kind of trench warfare that would become common in Manchuria and the Western Front. Here the howitzers had been so popular with the infantry that officers had often squabbled over who had authority over them, and they had proved vital in supporting difficult assaults.¹⁵¹

However, howitzers still emerged from the Boer War with something of a mixed reputation. They had been most successful in the rugged terrain of Natal, where the Boers had made extensive use of trenches and flanking moves were impractical, forcing the British to fight their way through in frontal assault with the aid of artillery support. However, they had achieved relatively little elsewhere, particularly during Lord Roberts’s advance. Here, the wide open spaces of Orange Free State and Transvaal made it possible to outflank the Boers rather than having to attack their trenches in a methodical manner. The best opportunity for his howitzers came during the Battle of Paardeburg, but their performance was disappointing against the cleverly constructed Boer entrenchments. J.M. Grierson noted these contrasting experiences on his return from South Africa.

The 5-inch howitzer was a disappointment, but opinions differ as to its value. On the Natal side they swore by it and praised its effect, but on the force advancing from Bloemfontein, Lord Roberts left the brigade-division of howitzers behind, preferring to take heavier metal.¹⁵²

¹⁴⁸ *Elgin Commission*, Vol.2, Q18529, p.362

¹⁴⁹ *Elgin Commission*, Vol.2, Q14341, p.128

¹⁵⁰ *Elgin Commission*, Vol.1, Q15850, p.233

¹⁵¹ Major A. Hamilton-Gordon, “Fourteen Days’ Howitzer Work on Service” in *Minutes of the Proceedings of the Royal Artillery Institution*, XXVII 1900-1901, p.351

¹⁵² TNA WO 108/184 Grierson’s Notes

Even after the war, the relative ineffectiveness of Lyddite remained a contentious point, and there were calls for more shrapnel to be carried to increase the howitzer's utility as a man-killer.¹⁵³ Indeed, some went so far as to argue that high angle time shrapnel fire was the only solution to dealing with entrenchments owing to the failure of high explosive ammunition in South Africa.¹⁵⁴ Furthermore, it was clear in the aftermath of the Boer War that the 5-inch field howitzer had serious defects, including being too heavy for rapid movement during field operations and possessing an inadequate range to cope with long range enemy artillery.¹⁵⁵ Unfortunately, design delays, financial parsimony and manufacturing hold ups meant that a new howitzer was extremely slow in forthcoming, with a replacement 4.5-inch field howitzer not entering British service until 1909. The slowness of rearmament was a source of great frustration to the artillerymen, and helped to contribute to a general lack of understanding of the weapon in the years following the Boer War. It was noted that although howitzers were well liked by the infantry for their ability to deliver plunging fire, their precise role as field artillery within the British Army remained poorly defined.¹⁵⁶ Lack of modern equipment was partially blamed for the cold attitude towards field howitzers, and they were also available only in limited numbers, with just three batteries per three infantry divisions in 1906.¹⁵⁷ Major C.B Levita summed up the problems the weapon faced, writing:

Hitherto the official books, which fortify the mind of military readers, have presumed a discreet silence on the subject of Field Howitzers, or dismissed it with a few broad statements which have failed to excite commanders, at any rate at peace, to a study of their uses... [on manoeuvres howitzers are] generally stowed away in the first hole available, out of touch with the infantry advance, and without a knowledge of the Q.F gun's targets...¹⁵⁸

J.B.A Bailey has suggested that the Boer War caused howitzers to develop a bad name in the British Army and that they were neglected throughout the period, with just three batteries of six guns being assigned to each B.E.F. infantry division in 1914, comparing extremely unfavourably with 380 field howitzers available in the German Army, with each German corps possessing a further 16 heavy howitzers.¹⁵⁹ However, this criticism is unfair. Although in numerical terms the provision of howitzers seems miserly when compared to the Germans, it must be remembered that a British division of 1914 only possessed 72 guns in total, and thus the howitzer brigade represented a full quarter of the total divisional artillery strength, a vast improvement from the pre-Boer War standard,

¹⁵³ TNA WO 163/11 IGF Report for 1905, pp.176-177

¹⁵⁴ Lieutenant R.K. Hezlett, "The capabilities and future role of Field Howitzers" in *Minutes of the Proceedings of the Royal Artillery Institution*, XXXI 1904-05, p.55

¹⁵⁵ TNA WO108/184 Grierson's Notes

¹⁵⁶ Captain H.A.L.H. Wade, "The tactical role of the Field Howitzer" in *Minutes of the Proceedings of the Royal Artillery Institution* XXXI 1904-05, p.409

¹⁵⁷ Major C.B. Levita, "A plea for more intimate connection between infantry and Field Howitzers" in *Journal of the Royal Artillery* XXXII 1905-06, p.37

¹⁵⁸ *Ibid*, pp.38-39

¹⁵⁹ Bailey, *Field Artillery*, p.221

where there had been just 3 howitzer batteries out of 92 field batteries. This represents a considerable proportion for a weapon which Bailey asserts had developed such a poor reputation. Additionally, the British allocation was far larger than that of the French, who provided just 6 howitzers to each corps and did not incorporate them into manoeuvres.¹⁶⁰

Furthermore, despite its mixed performance in South Africa and the long delays before a new field howitzer was introduced, a number of junior officers in the artillery were favourably impressed with the weapon and saw a future for it in both European and colonial warfare.¹⁶¹ The scale of entrenchment and the impressive performance of howitzers in the Russo-Japanese War confirmed these early ideas and emphasised their value in the field. Indeed, the employment of these weapons was selected as the first purely artillery subject ever to be discussed at a General Staff conference, with Colonel A.H. Hamilton-Gordon, a howitzer battery commander who had achieved distinction in Natal, as a key speaker.¹⁶² Although lack of modern equipment hampered the development of the arm, once it had come into service the 4.5-inch howitzer proved to be an excellent weapon and was superior to continental rivals in the same class.¹⁶³ The new weapon proved popular amongst both artillerymen and infantry. For example, in 1909 the Inspector General of Forces complained that “Howitzer batteries are used almost too freely in all attacks...” and warned that their limited ammunition should instead be conserved for critical moments.¹⁶⁴ There was perhaps an overemphasis on shrapnel from howitzers, with 75% of their ammunition being of this type, but in the early part of the First World War, this did not prove a weakness. Indeed, it has been suggested that shrapnel remained the most effective artillery ammunition throughout 1914.¹⁶⁵

Although certain flaws remained, particularly the tendency in parts of the R.F.A to see howitzers as being highly specialised and technical, it is difficult to agree with Bailey’s assertion that there was a lack of interest in the weapon.¹⁶⁶ Despite a somewhat mixed performance in South Africa, the success of the weapon in Natal showed its value against well constructed earthworks, and the Russo-Japanese War confirmed the early faith many British artillerymen had in the gun. Bailey himself notes that the work of officers such as Hamilton-Gordon with howitzers in the pre-First World War period proved “invaluable” in 1914.¹⁶⁷ Although howitzers were not given the same level of prominence they received in the German Army, they remained an important and integral part of the B.E.F.’s artillery complement and the Boer War played a large role in emphasising their future value.

¹⁶⁰ Ibid, p.221

¹⁶¹ For example, Nicolls, “Type of Guns” in *RAI*, p.229; Gordon “Fourteen Days’ Howitzer Work” in *RAI*, p.364

¹⁶² Headlam, *History of the Royal Artillery*, Vol.II, p.179

¹⁶³ Scales, “Artillery in Small Wars”, p.302

¹⁶⁴ TNA WO 163/15 IGF Report for 1909, p.298

¹⁶⁵ Bailey, *Field Artillery*, p.233

¹⁶⁶ For example, see TNA WO 163/18 IGF Report for 1912, p.587

¹⁶⁷ Bailey, *Field Artillery*, p.221 (Footnote)

Infantry – Artillery Co-Operation

Although the embarrassments and difficulties of fighting against modern enemy artillery had a profound effect upon the Royal Artillery, the most important issue to emerge from the Boer War was the need for far greater levels of infantry – artillery co-operation. As with many tactical considerations, pre-war manuals had seen artillery support for infantry attacks as a straightforward process.¹⁶⁸ After winning the artillery duel, it was expected that the guns would bombard the enemy position prior to the infantry advance, softening up the foe for the final assault. In the event of the attackers meeting stiff resistance, the gunners were expected to support as best they could, but suggested means by which this could be achieved were vague. A common maxim throughout the long arm during the period was “The greater the difficulties of the infantry the closer should be the support of the artillery”, but this was generally held to mean pushing guns up to short range, a tactic which brought Colonel Long to grief at Colenso.¹⁶⁹ The difficult matter of infantry support had received little clarification on the eve of the conflict, and training in co-operation prior to the Boer War was virtually non-existent, with one gunner noting that the only result of peace manoeuvres was to prove that as far as the subject went, “lamentable ignorance is very apparent”.¹⁷⁰ These problems were to be brought into stark focus in South Africa. Modern small arms fire vastly increased the difficulties of assault, and the infantry had greater need of artillery support than ever before.

As discussed in previous chapters, one of the initial difficulties that faced the artillery in South Africa was the invisibility of enemy positions. Use of concealed trenches and smokeless powder made finding appropriate targets difficult, and inadequate reconnaissance failed to ease these burdens. At the battles of Colenso and Magersfontein, the artillery carried out heavy bombardments of presumed enemy entrenchments, when in fact they were shelling false positions that the Boers had left unmanned. A German writer offered a scathing description of the bombardment of Colenso, noting that “...the fire of the guns was directed upon the opposite bank at random, the actual positions of the enemy being unknown, [and] the effect, as might have been anticipated, was nil.”¹⁷¹ At Magersfontein, an even greater bombardment was delivered during the late afternoon prior to the planned night march. This artillery preparation was the heaviest bombardment delivered by British guns since the Crimean War. Lord Methuen noted in his official despatch that “...[with] the additional effect of lyddite I expected great destruction of life in their trenches, and a considerable demoralising effect on the enemy’s nerves, thereby indirectly assisting the attack at daybreak.”¹⁷² However, as

¹⁶⁸ Headlam, *History of the Royal Artillery*, Vol.II, p.43

¹⁶⁹ Headlam, *History of the Royal Artillery*, Vol.III, p.382

¹⁷⁰ Major C.O. Head, “The desirability of the acquirement by Infantry officers, especially of higher ranks, of a more intelligent knowledge of the use of field artillery than they generally possess” in *Journal of the Royal United Services Institute* 48(2) 1904, p.1176

¹⁷¹ Unknown Translator, “The Heavy Artillery of a Field Army at River Crossings” in *United Service Magazine* November 1904, p.166

¹⁷² TNA WO 108/237 Lord Methuen’s Despatch 15th February 1900

previously discussed, the correct location of the Boer trenches had not been ascertained, and the majority of the fire was delivered at unoccupied areas of the kopje. Those shells that did land amongst the Boer earthworks inflicted practically no damage. Furthermore, far from terrifying the burghers, the artillery preparation simply alerted them to the fact that an attack was imminent.

While the relative invisibility of Boer positions made such pre-battle bombardments largely ineffective, they also posed problems for the close range tactics that had been favoured in colonial wars. Guns that attempted to push forward to the infantry firing line and beyond, as Colonel Long did at Colenso, could find themselves in grave difficulties of their own if they blundered into previously unseen Boers. Furthermore, occupying a close range position did not always ease the difficulties of locating invisible and fleeting targets. For example, at Modder River, British batteries managed to push forward to within 1200 yards of the Boer line in an attempt to give renewed vigour to the stalled British attack. Although these guns drew praise for their efforts and had success in keeping down enemy artillery fire, they could avail little against the dug-in Boer riflemen and could not help the British infantry advance any further.¹⁷³

Overcoming well constructed Boer defences required more than ineffective preliminary bombardments, and no amount of close range heroics could make up for a lack of thoroughness in preparation. The solution lay in better co-operation with the infantry, who by advancing could force the Boers to occupy their defences and also cause the burghers to reveal themselves as they rose to fire. Summing up this issue, one gunner noted that “Artillery preparation is essential, but a bombardment *followed by an attack* is futile.”¹⁷⁴ However, given the lack of pre-war training on the subject, achieving this level of co-operation posed considerable difficulties. The artillery had to ensure their fire was well timed and accurate else they risked hitting their own side, while the infantry required a means of signalling to their guns to change target or cease fire when necessary. Inevitably, there were errors in the heat of battle. For example, at the Battle of Talana Hill, British guns continued to fire on the Boer position even after friendly infantry had seized it, causing such chaos that the hard won hill top was briefly abandoned.¹⁷⁵ At the Battle of Spion Kop, British infantry in the firing line lacked the means to communicate with the gunners as their heliographs had been smashed by bullets early on in the fighting, and flag signals were hard to read. Lacking information, the field artillery attempted in vain to try and silence invisible Boer guns, when their fire could have been more profitably directed on the riflemen who were engaging the British line.¹⁷⁶ When a battery of 4.7 inch guns opened an effective fire on the Boers from long range, Charles Warren, stationed at the bottom

¹⁷³ Duxbury, G.R, *The Battle of Modder River 28th November, 1899* (Johannesburg, S.A National Museum of Military History, 1995) pp.2-3

¹⁷⁴ Captain N.F. Gordon, “The Future Training, Organization and Tactical Employment of Q.F Field Artillery” in *Minutes of the Proceedings of the Royal Artillery Institution*, XXXI 1904-05, p.187

¹⁷⁵ Amery, *Times History*, Vol.2, pp.165-166

¹⁷⁶ Amery, *Times History*, Vol.3, p.256

of the kopje and out of touch with the fighting there, sent an alarmed message for them to cease fire, stating “We occupy the whole summit and I fear you are shelling us severely.”¹⁷⁷ In fact, Warren was wrong and this valuable supporting fire was lost to the hard pressed infantry.

Nevertheless, the experience of combat began to improve the level of co-operation between the two arms. After the disaster at Spion Kop, artillery and infantry in Natal began to forge closer links and improve their tactical combinations. At the Battle of Vaal Krantz 5th-7th February 1900, heavy Boer fire from an unexpected quarter had deflected the infantry advance, but well positioned artillery reacted quickly to suppress it and allow the infantry to continue forward.¹⁷⁸ During the fighting for control of the Tugela Heights later in the same month, Neville Lyttelton ordered his supporting artillery not to open fire until his infantry advance had compelled the Boers to man their positions, a policy noted as a “considerable tactical improvement” by Leo Amery.¹⁷⁹ These gradual improvements bore their greatest fruit at the Battle of Pieter’s Hill 27th February 1900. Preparation for assault was exceptionally thorough, applying techniques normally reserved for sieges to a tactical field battle. The British assembled around 76 guns along a 4.5 mile front to support the infantry attack, and had pre-registered the ranges to important targets during the previous day. Describing the preparations, Lord Roberts noted; “Every sangar and important point of the enemy’s position had been given a name, the gun positions were connected by signallers, and special observers were posted at the principal points.”¹⁸⁰ Specific instructions to the artillery of 5th Division stated:

Follow the infantry attacks up closely. When no longer safe to shoot at enemy’s position, do not cease fire, but shoot over the enemy’s trenches, “pitching them well up”, so as to make the enemy think he is still being shelled, and also catch as he runs down the other side.¹⁸¹

The time spent in preparation was not wasted, and when the attack was delivered the artillery support proved decisive. Field guns firing shrapnel were forced to switch to firing over the Boer trenches as their infantry approached, but the howitzers and 4.7 inch guns continued their fire with lyddite and common shell until virtually the last moment, Lord Roberts reporting the fire was maintained until the infantry were just 15 yards from the Boer line.¹⁸² Although some British troops were hit by their own artillery, it was generally considered by infantry officers that without such close supporting fire the

¹⁷⁷ Lieutenant S. Gore-Browne, “The Best Methods to be Adopted to Secure Co-operation between Infantry and Artillery in the Attack” in *Journal of the Royal Artillery*, XXXIII 1906-1907, p.306

¹⁷⁸ Captain W.F. Weber, “The Employment of Divisional Artillery” in *Journal of the Royal United Services Institute*, 54(1) 1910, pp.358-59

¹⁷⁹ Amery, *Times History*, Vol.3, p.502

¹⁸⁰ TNA WO 108/237 Lord Roberts’s Despatch 28th March 1900

¹⁸¹ Quoted in Maurice, Frederick (ed.), *History of the War in South Africa* (Uckfield, Naval & Military Press 2007) Vol.2, pp.353-35, 509 (Hereafter referred to as *Official History*)

¹⁸² TNA WO 108/237 Lord Roberts Despatch 28th March 1900

attack would have failed.¹⁸³ The artillery preparation at Pieter's Hill was the most thorough of the war, and the Natal Field Force further demonstrated good levels of infantry – artillery co-operation at subsequent engagements such as Botha's Pass and Bergendal.¹⁸⁴

The war in South Africa revealed several important issues with regard to supporting an infantry attack. Shrapnel from field guns was relatively harmless against entrenchments, but had a suppressing effect that could keep down enemy rifle fire. High angle fire from howitzers was more useful for inflicting damage upon earthworks, and could be continued longer with less fear of causing friendly casualties. In combination, the two weapons possessed synergy, with the shrapnel sweeping a wide area to prevent reinforcement or evacuation of the position, while howitzers searched the earthworks and caused chaos amongst the defenders. This effect was achieved at Pieter's Hill, where the Boers were noted as being "...practically confined to their trenches by the severity of artillery fire."¹⁸⁵

Unfortunately, in the aftermath of the conflict, the subject of co-operation in the attack received less attention than the value of long range fire and the usage of concealed positions. Although a number of officers from both branches identified the fact that modern conditions made artillery support more critical than ever, little improvement in training was made in the years immediately following the war.¹⁸⁶ It is not entirely clear why the links that had been forged in South Africa were neglected in the aftermath of the conflict, but several factors may have contributed to the decline. As previously discussed, the service branches of the British Army tended to learn within their own frame work and both infantry and artillery tended to focus on branch specific issues in the years following the war. Artillery focused upon long range, accurate shooting at difficult targets, while infantry devoted attention to their own tactical reforms such as extension and marksmanship, causing the two arms to drift apart and forget the lessons learned so painfully in Natal. Furthermore, an absence of suitable areas where combined training was possible limited the development of co-operative tactics.¹⁸⁷ When artillery and infantry did train together, infantry officers tended to leave all fire support decisions to the gunners, focussing solely upon their own tactical problems. Artilleryman Major C.O. Head addressed the issue in a polemical article in 1904, writing:

An unfortunate idea has grown up in the Army that the use of field artillery is an obtuse science, to be understood only of a few [sic], and beyond the intelligence of anyone not

¹⁸³ Captain H. Dawnay, "Artillery and Infantry in the Final Stages of the Attack: An Infantry View" in *Journal of the Royal Artillery*, XXXV 1908-1909, p.55

See also "Correspondence – Artillery Support of Infantry" in *Journal of the Royal United Service Institution*, 54(1) 1910, p.665

¹⁸⁴ Maurice, *Official History*, Vol.3, pp.398-399

¹⁸⁵ TNA WO 108/237 Lord Roberts Despatch 28th March 1900

¹⁸⁶ *Elgin Commission*, Vol.2, Q16924, p.282

¹⁸⁷ TNA WO 163/10 IGF Report for 1904, pp.306-307

directly connected with it... The ignorance of infantry officers on the employment of artillery is astounding, and it is only equalled by their misconceptions of its power.¹⁸⁸

Voices were beginning to be raised regarding forging closer links between infantry and artillery by 1904, and this ground swell of interest fortuitously coincided with reports from the outbreak of the Russo-Japanese War, with reports from this conflict serving as a timely reminder of the importance of close co-operation between the two arms.¹⁸⁹ In Manchuria, artillery was noted as being more powerful than ever before, forcing infantry to dig themselves even deeper underground and presenting problems for assaults.¹⁹⁰ Nevertheless, as in the Boer War, the artillery lacked the strength to shell determined troops out of their positions in preparatory bombardments, and instead combination in the attack was vital.¹⁹¹ In terms of teaching co-operation, there was relatively little in the Russo-Japanese War that should have come as a surprise to veterans of the Natal campaign, but it had the valuable effect of revitalising interest in the neglected subject and highlighting it as a critical element of future tactics. Interest steadily grew in the issue through the second half of the Edwardian period, although blunders could still occur in training. In 1907, Hubert Gough defeated John French during manoeuvres at Aldershot, citing infantry and artillery co-operation as an important factor:

He (French) still talks of the artillery duel and artillery preparation, which are worse than useless. The preparation for the decisive struggle *must* be done by both Infantry and Artillery. The Infantry *must* advance and *threaten* assault to force the defenders to expose themselves to artillery fire.¹⁹²

While there was recognition of the need for co-operation, the problem for the infantry and artillery was how effective combination and support could best be achieved at tactical level. The debate was further complicated by the continuing, unresolved arguments over whether artillery was best employed from long range, concealed positions, or at short range over open sights. Despite the unfortunate fate of Colonel Long's batteries at Colenso, and the excellent example of carefully prepared artillery at longer range at Pieter's Hill, emphasis remained on getting guns close to the firing line during the decisive attack. *Combined Training 1905* emphasised the old pre-war mantra when it noted "...it should be borne in mind that the greater the difficulties of the infantry the closer should be the support of the artillery; this may necessitate some of the artillery being pushed forward

¹⁸⁸ Head, "The use of field artillery" in *JRUSI*, 48(2) 1904, pp.1173-1174

¹⁸⁹ Spiers, "Rearming the Edwardian Artillery" in *JSAHR*, LVII: (231) 1979, p.172

¹⁹⁰ For example, Negrier, "Lessons of the Russo-Japanese War" in *JRUSI*, 50(1) 1906, p.805

¹⁹¹ Unknown Translator, "Combination in the attack" in *Journal of the Royal United Services Institute*, 54(2) 1910, p.1198

¹⁹² Quoted in Badsey, Stephen, *Doctrine and Reform in the British Cavalry 1880-1918*, (Aldershot, Ashgate, 2008), p.200

to within decisive ranges during the final stages of the engagement.”¹⁹³ Officers from both branches supported the idea that guns needed to be deployed at close range to ensure attacks were successful. Long range fire was held to increase the risk of friendly fire incidents and also was accused of failing to inflict sufficient damage or give the required moral support.¹⁹⁴ The need for fire to improve morale was considered especially important, particularly as both South African and Manchurian experiences had proven it was difficult to inflict actual casualties upon well entrenched defenders. Furthermore, the extended formations adopted by infantry in the Edwardian period were noted as requiring greater moral encouragement than the old close order columns.¹⁹⁵ While well positioned, concealed guns were noted as having a distinct material effect upon the enemy, some officers argued that this was not enough and suggested that the infantry needed to see their own guns to draw support from them. Undoubtedly, the sight of friendly artillery could be inspiring for hard pressed infantry. For example, at a critical moment during the Battle of Elandslaagte, Ian Hamilton had ordered two guns to be brought up to the firing line, “...and was able to do some good by shouting out to the infantry that the guns were coming up to help them.”¹⁹⁶ Building on this idea, artillerymen Captain B. Atkinson offered the opinion;

...the sight of even a single gun shooting indifferently from an adjacent, exposed position will be far more morally valuable than a whole brigade under cover a mile away... Moral support from the drawing-room never yet induced a frightened child to go upstairs alone in the dark.¹⁹⁷

However, there were serious problems with this idea. The long ranges at which artillery initially deployed meant that moving them closer to the firing line would be a slower, more difficult process than many imagined. Infantry officers were heard at post-manoeuvre conferences offering to use their own men to man handle guns into the front line if the gunners would serve them, but artillerymen noted that this would be far harder in war than it appeared in training.¹⁹⁸ Furthermore, as proved at Colenso and in the Russo-Japanese War, exposed batteries ran the risk of being knocked out by both infantry and artillery fire if they deployed in the open. The fate of artillery that attempted to cross open ground under fire in Manchuria had proved that to do so was “to court disaster”, with one Russian battery that tried such a deployment at the Battle of Liao-Yang suffering appalling casualties

¹⁹³ *Combined Training 1905*, p.118

¹⁹⁴ Major E.M. Molyneux, “Artillery support of infantry” in *Journal of the Royal United Services Institute*, 53(2) 1909, p.1457; Major K.K. Knapp, “The tactical employment of pack artillery – the influence of armament on the question” in *Journal of the Royal United Services Institute*, 51(1) 1907, p.722

¹⁹⁵ Captain B. Atkinson, “The means to ensure co-operation in action between the Artillery and Infantry of the Field Army. How are these means best organised and maintained?” in *Journal of the Royal Artillery*, XXXV 1908-1909, p.334

¹⁹⁶ RAM, *School of Gunnery Reports 1905-1913*, p.16

¹⁹⁷ Atkinson, “Co-operation in action” in *JRA XXXV 1908-1909*, p.334

¹⁹⁸ Lieutenant-Colonel J.H.V. Crowe, “Artillery from an Infantry Point of View” in *Journal of the Royal Artillery*, XXXVI 1909-1910, p.78

that included all its officers, 56 men and 15 horses.¹⁹⁹ A senior British artilleryman recognised the consequences of such losses in a rebuttal of close range tactics, writing “...the spectacle of a holocaust of men and horses in their immediate neighbourhood cannot but have a most unnerving effect on the best of infantry.”²⁰⁰ Conversely, guns operating from covered positions would be safer from incoming enemy fire and could continue firing with relative calm, which would be far more conducive to accuracy than occupying an open, bullet swept crest.²⁰¹

The debate continued throughout the pre-1914 period, with neither side gaining official ascendancy. As with the discussions over the value of cover, considerable freedom was allowed to individual artillery officers with regard to how they chose to fight their guns. Although training and equipment allowed the use of accurate fire from concealed positions, the insinuation that artillery was not properly supporting their infantry comrades unless they were fighting their guns in the open touched raw nerves, and *Field Artillery Training* made mention of the need for batteries to be willing to sacrifice themselves if necessary to support the attack.²⁰² Nevertheless, by 1914, the confusing and potentially misleading phrase “close support” had been dropped from British regulations, and while it was recommended to have guns at close hand to repel enemy counter attacks, the idea of pushing batteries up to decisive range during the attack was not to be found in *Field Service Regulations*.²⁰³ However, *Field Artillery Training* for 1914 offered a somewhat contradictory view, suggesting that **“To support infantry and to enable it to effect its purpose the artillery must willingly sacrifice itself.”**²⁰⁴ [Emphasis in the original] This lack of official doctrine on how best to support the infantry prevented a systematic approach to co-operation and instead allowed a profusion of methods to exist, as revealed by the artillery deployments at the Battle of Le Cateau. 5th Division’s guns followed the line of *Field Artillery Training* and although offering strong support also suffered serious casualties, while 3rd Division’s guns took the concealed route preferred by *Field Service Regulations*, but missed certain opportunities to deliver effective fire.²⁰⁵

While the debate on close range or long range support continued, a problem common to both schools of thought was how to ensure effective communication between the infantry and artillery. In the Boer War, flag signals, heliographs and even men fixing bayonets and waving their rifles over their heads had been used to communicate with the artillery, but even in the crystal clear atmosphere of South Africa these methods had not always been reliable and communication had broken down at battles

¹⁹⁹ ‘Outsider’, “Artillery Training” in *The Journal of the Royal Artillery*, XXXVIII 1911-1912, p.228

²⁰⁰ Brigadier-General J.D.P. DuCane, “The Co-Operation of Field Artillery Infantry in the Attack” in *Army Review*, (1)1911, p.104

²⁰¹ Ibid, p.109

²⁰² Bidwell and Graham, *Firepower*, p.56-57; Captain A. Crookden, “Co-Operation Between Infantry and Artillery in the Attack” in *Army Review* (5)1914, p.122

²⁰³ *Field Service Regulations 1909 (1914 Reprint)*, p.143,

²⁰⁴ War Office, *Field Artillery Training 1914* (London, H.M.S.O, 1914) p.232

²⁰⁵ Bidwell & Graham, *Firepower*, p.68

such as Spion Kop. In Manchuria, the Japanese had utilised various methods including the carrying of prominent flags in the firing line, but more importantly had also experimented with the usage of field telephones to link infantry and artillery.²⁰⁶ However, the technology was still very much in its infancy and was bedevilled by a host of technical problems. Many British artillerymen saw a bright future for telephones, but few were prepared to place complete faith in them until the technology was more reliable.²⁰⁷ While telephones had value in connecting guns to observation posts, they were not yet sufficiently advanced to permit them being carried into the firing line itself. This problem of communication between artillery and front line infantry was one that affected all armies during the First World War, and would not be adequately solved until the advent of portable wireless.²⁰⁸

In the absence of precise communications that could give the artillery an accurate picture of conditions in the firing line, a major tactical issue was how long the guns should continue firing during an assault. Fear of friendly fire was a serious one, but despite this concern the general opinion amongst both gunners and infantry was that fire should be continued until the very last moment, with one officer stating, "It is not sufficient, in the infantry attack, that the artillery support should be continued up to the last minute; it must be kept up to the last second."²⁰⁹ The experience of South Africa was crucial in encouraging the idea that very close support was possible and demonstrating that 'friendly fire' incidents were far less common than had been feared. The valuable experiences in Natal placed the British Army in advance of continental rivals, who expected to be forced to cease fire with the infantry around 300 yards from the enemy line.²¹⁰ Conversely, British experience suggested fire could be continued for much longer, with one veteran of South Africa recalling that the last shells burst over the Boer trenches when his own men were less than 50 yards from the position, offering the opinion "This is how it should be."²¹¹ Nevertheless, the fear of causing friendly casualties was a real one for many artillery officers, and official regulations on the difficult issue were vague for much of the period.²¹² No specific distance at which to cease fire was laid down in British regulations, the emphasis remaining on flexibility and individual judgement, but *Field Service Regulations 1909* effectively endorsed close support in the style that had been seen in South Africa, noting;

²⁰⁶ Hamilton, *Staff Officer's Scrap Book*, Vol.1, p.180-181. Hamilton was rather unimpressed with the use of telephone lines, feeling they would be cut by an aggressive, resourceful foe.

²⁰⁷ For example, Burney, "The Role of Heavy Artillery" in *JRUSI* 53(1) 1909, p.500, Molyneux, "Artillery support of Infantry" in *JRUSI* 53(2) 1909, pp.1461-62

²⁰⁸ Richard Bryson, "The Once and Future Army" in Brian Bond (ed.) *'Look to Your Front': Studies in the First World War* (Staplehurst, Spellmount, 1999) pp.28-29

²⁰⁹ Molyneux, "Artillery support of Infantry" in *JRUSI* 53(2) 1909, p.1465

²¹⁰ Bailey, *Field Artillery*, p.229

²¹¹ Quoted in Captain H. Dawnay, "Artillery & Infantry in final stages of the attack: An Infantry view" in *Journal of the Royal Artillery*, XXXV 1908-1909, p.53

²¹² *Ibid*, p.49

...artillery fire will be continued until it is impossible for the artillery to distinguish between its own and the enemy's infantry. The danger from shells bursting short is more than compensated for by the support afforded, if fire is maintained to the last moment...²¹³

As theoretical interest in the difficult issue grew, improvements in co-operative training between the two arms followed. Calls for greater links between infantry and artillery had been raised at Aldershot in 1905, with Sir John French noting that he believed close relations between the two "...to be one of the great secrets of success on the modern battlefield."²¹⁴ Nevertheless, problems with achieving these laudable goals remained. There was little fraternisation between infantry and artillery, and it was observed that these somewhat frosty relations reached the extent that artillery officers chose to mess with the Royal Engineers rather than the infantry if a battery mess was unavailable.²¹⁵ Ian Hamilton described relations and co-operation between the two arms as "...one of the weakest, if not the weakest, spots in our system of training."²¹⁶ Various attempts to improve the situation and increase mutual understanding between the arms were made, with Hamilton at Southern Command pioneering a successful policy of attaching infantry officers to artillery and vice versa.²¹⁷ Infantry officers were also encouraged to visit artillery practice camps to observe their methods, but by 1906 the Inspector General of Forces felt this was not enough, and instead suggested that officers should be ordered to attend, with the Army Council approving of this policy.²¹⁸ Gradually, these initiatives began to improve the relationship between the two arms, but the process was slow, and relations between gunners and infantry could still prove somewhat bitter at post-manoeuvre conferences.²¹⁹ Nevertheless, the efforts had begun to bear fruit by the later part of the period. In 1913, Captain C.E. Budworth noted that discussions of co-operative tactics were "...carried out to a much greater extent than before", while in the same year the Inspector General reported "There is a considerable improvement in the co-operation of Artillery and Infantry during training at all stations at which it can be arranged...", although he felt still more could be done in this direction.²²⁰

While the Royal Artillery had initially taken less interest in infantry support than in developing long ranged and indirect fire, by the end of the period the issue was prominent and widely debated. The experience of combat in South Africa had shown the potential of close co-operation during infantry attacks, and Thomas Pakenham has suggested that the artillery tactics employed in the later stages of

²¹³ *Field Service Regulations 1909 (Reprint 1914)* p.143

²¹⁴ TNA WO 27/503 Memorandum on the Training of 1st Army Corps 1905 (31st January 1905)

²¹⁵ Atkinson, "Co-operation in action" in *JRA XXXV* 1908-1909, p.331

²¹⁶ General Ian Hamilton, "Remarks by General Sir Ian Hamilton K.C.B, D.S.O, Commander-in-Chief Southern Command, on the training of troops under his command during 1908" in *Journal of the Royal United Services Institute*, 52(2) 1908, p.1152

²¹⁷ Hamilton, "Training of Troops During 1906" in *JRUSI* 50(2) 1906, p.1525

²¹⁸ TNA WO 163/12 IGF Report for 1906 and Army Council comment, p.58

²¹⁹ Gore-Browne, "Co-operation between Infantry and Artillery" in *JRA XXXIII* 1906-1907, p.310

²²⁰ Major C.E. Budworth, "Training and action necessary to further co-operation between Artillery and Infantry" in *Journal of the Royal United Services Institute*, 57(1) 1913, p.68; TNA WO 163/20 IGF Report for 1913 pp.328-329

the Natal campaign were revolutionary, foreshadowing the ‘creeping barrages’ that were used in the First World War.²²¹ Unfortunately, rearmament and the debate over cover and concealment meant the artillery lost sight of these valuable lessons for several years after the conflict, and it took the example of the Russo-Japanese War to renew interest in the subject. While the artillery and infantry worked hard to improve their methods of co-operation, the flaws of existing communications technology and lack of clear doctrinal guidance on the best positions to occupy placed limitations on what could be achieved. The core principles of artillery co-operation learned in the Natal were excellent, but British emphasis on flexibility meant that although close co-operation was seen as a crucial factor on the battlefield, the artillery had no systematic approach to providing fire support for infantry. This led to contrasting deployments at Le Cateau, and its effects were also felt during later actions in 1914, such as the fighting advance through Artois in early autumn.²²² Although the Royal Artillery acquitted itself reasonably well during 1914, ensuring co-operation on the vast battlefronts that emerged from 1915 took time, training and bitter experience and it was not until 1917 that such methods were to become truly effective.²²³

Conclusions

Of all the combat arms in the British Army, the Royal Artillery faced the greatest challenge in the pre-First World War period, being forced to adapt to both new equipment and new tactics in a short space of time. Many long held tactical ideas were found wanting in South Africa, and the debates on their potential replacements inevitably aroused controversy and argument.

The Boer War produced many important tactical ideas, including the need for accurate, long range fire and the importance of close co-operation with infantry. The introduction of the 60-pound gun and the excellent 4.5-inch howitzer both stemmed from the experience in South Africa, and although these weapons were in short supply, they provided a crucial platform for further development in the First World War. Equally, the ability of the Royal Artillery to engage from concealed positions and the attendant interest in more precise methods of fire were to serve it well on the Western Front. The flirtation with rapid but inaccurate French *rafale* tactics was fortunately abandoned, and it is significant to note that the French expressed considerable admiration for the precision of Royal Artillery fire in late 1914.²²⁴

The Russo-Japanese War provided a timely reminder of the growing importance of artillery and had the valuable effect of increasing interest in co-operative tactics. However, it offered relatively little that was new to the Royal Artillery. The use of howitzers to overcome earthworks, the dangers of

²²¹ Pakenham, Thomas *The Boer War* (London, Abacus, 1997) pp.361-362

²²² Bidwell & Graham, *Firepower*, pp.67-68

²²³ Bailey, *Field Artillery*, p.246

²²⁴ Bidwell & Graham, *Firepower*, pp.83-84

deploying guns in the open and the need for strong artillery support for infantry attacks had all been emphasised in South Africa, particularly in Natal. The Russo-Japanese War tended to confirm the lessons that had been demonstrated in the Boer War rather than offering anything that was entirely new, but it did have the valuable effect of increasing interest in and debate upon the subject.

However, the great weakness of the artillery in this period was a failure to settle upon any formal combat doctrine. Instead, a wide variety of tactical ideas were in circulation, with individual officers generally left to choose between them. Throughout the period, the popularity of certain tactical principles waxed and waned, with some briefly gaining ascendancy only to be abandoned soon after. For example, the use of covered positions was never truly codified, with its reputation peaking after the Boer War, declining as the French *rafale* system gained popularity, and then enjoying a resurgence as French methods were found to be impractical. In such an environment, much responsibility devolved onto the artillery commander for choosing how to fight his guns. While this ensured flexibility, it failed to create uniformity. In an army used to colonial campaigns with small numbers of troops in a variety of climatic conditions, this flexibility was an asset, but it became a source of weakness as the army underwent massive expansion from 1914 onwards. The result was that for the early part of the First World War, the success of artillery was often dependent upon the degree of enlightenment of the officers in charge, with higher command choosing not to enforce uniform fire plans.²²⁵ This approach could achieve local successes but had serious flaws when employed across a large battlefield such as that of the Somme.

Nevertheless, although flaws remained, the Boer War had the important effect of prompting a complete rearmament, as well as forcing the Royal Artillery away from outdated ideas drawn from 1870 and into more practical tactics. In criticising the British artillery performance in early part of the First World War, it is possible to lose sight of the level of development the branch underwent during the 1899 – 1914 period. In 1899, the artillery had been poorly equipped, wedded to outdated tactical ideas and was lambasted for being outclassed by a handful of Boer guns, but by 1914 the British gunners were adept at fighting from concealed positions and were noted for their precision and accuracy by their allies. The ideas drawn from the Boer War and confirmed by the Russo-Japanese War proved a valuable basis for future development. The tactics of accurate long range fire, concealment and close infantry support were all essentially correct, and it was a lack of numbers and absence of uniform doctrine that hampered the gunners in 1914 rather than inherent tactical flaws as in the case of the French. Although the reforms of the Royal Artillery were not as strikingly successful as those of the infantry, they nevertheless represented a substantial improvement in both tactics and equipment on those of the army that had fought in South Africa.

²²⁵ Ibid, p.82

Edward Spiers has suggested that the artillery went to war in 1914 “with a well-considered doctrine, which commanded confidence.”²²⁶ In fact, doctrine was notable by its absence from the Royal Artillery, but this problem was compensated to extent by highly accurate gunnery and many good tactical ideas within the branch, even if they were not formally codified in the pre-war years. Building upon the hard experience of the Boer War, the Royal Artillery was able to improve itself to the extent that it proved a determined foe for the numerically superior Germany artillery in the opening months of the First World War, providing crucial fire support to their infantry comrades in battles such as Le Cateau and First Ypres despite the persistent ammunition shortages.

²²⁶ Spiers, “Rearming the Edwardian Artillery” in *JSAHR* LVII: (231) 1979, p.176

Chapter Four Cavalry

Despite its pre-eminent social status, the cavalry of the British Army had played a relatively minor role in the colonial struggles of the late 19th century, and had limited combat experience prior to the Boer War. However, the struggle in South Africa proved to be a conflict in which mounted troops were to become the dominant arm. The Boers were an entirely mounted force, and their military ethos was based upon maintaining mobility to avoid being overwhelmed at close range by superior numbers. Although the Boers often fought from earthworks in the conventional stage of the war, during this period the cavalry were kept busy with carrying out difficult reconnaissance against well concealed foes and trying to cut off Boer retreats after British advances. Both these roles proved far harder than anticipated. Smokeless powder and long range rifles made effective scouting exceptionally difficult, while the superior quality of Boer mounts and small numbers of British cavalry meant that the exhausted horsemen were often left trailing behind in pursuits, unable to turn local victories into decisive ones. After the fall of Bloemfontein and Pretoria and the beginning of the guerrilla war, the mobility of the Boers became even more pronounced. Abandoning their artillery and wagon laagers, fast moving commandos were able to strike at exposed and vulnerable British formations with alarming success, before escaping the relatively slow moving British pursuit columns. To counter Boer mobility, the British deployed a vast number of mounted troops in South Africa, including regular formations of cavalry and mounted infantry, as well as yeomanry from Britain and colonial volunteers from around the Empire. Campaigning over the enormous geography of South Africa against a highly mobile foe made great demands upon the British mounted forces. The varied duties included reconnaissance, screening, turning the flanks of fixed Boer positions and finally striking and pursuing when the opportunity arose. The workload resulted in a staggering number of casualties amongst horses. Official figures noted that 347,007 animals were 'expended' during the campaign, mainly as a result of exhaustion and disease, the figure representing around 67% of the total number of horses sent to the theatre.¹

With such an important and prominent part to play, the performance of the British mounted forces became a subject of scrutiny and criticism even while the war was still in progress. Critics argued that the cavalry had achieved precious little with sword or lance and had failed to effectively pursue the Boers and turn retreats into routs. Supporters however pointed to incidents such as the successful pursuit at Elandsplaagte and the bold advance of the cavalry division at Klip Drift, suggesting that these examples had proven the viability of traditional cavalry on a fire swept battlefield. The role of

¹ *Report of His Majesty's Commissioners Appointed to Inquire into the Military Preparations and Other Matters Connected with the War in South Africa*, (London, H.M.S.O. 1903) Vol.4: Report, p.97 (Hereafter referred to as the *Elgin Commission*)

the Mounted Infantry also proved controversial, with some feeling that their ability to combine cavalry mobility with infantry firepower made them exceptionally valuable, while others argued their rudimentary riding skills and poor horsemastery made them a liability that merely increased the number of horse casualties. The experiences of the Boer War set the stage for a heated debate that would rage throughout the pre-First World War period as to what tactical role cavalry would play in any future conflict. The crux of this discussion revolved around whether cavalry was better served focusing on a dismounted combat role or keeping the old shock action traditions and aiming for a decisive charge. Fierce passions were aroused on both sides, and some of the most important soldiers of the British Army became involved in the debate, including the last Commander in Chief, Lord Roberts, and future B.E.F. commanders John French and Douglas Haig.

This vociferous debate has caught the eye of historians, and the tactical development of cavalry in this period has received greater academic study than either infantry or artillery. Traditionally, views of cavalry have been largely negative, seeing the arm as antiquated and reactionary, with key officers such as Haig stubbornly wedded to obsolete ideas and ignorant of new technology.² For example, Edward Spiers has argued that attempts to reform the cavalry in the 1899 – 1914 period were a failure, ending with mounted arm using the same shock tactics it had used prior to the Boer War.³ Ineffectiveness of cavalry during the years of trench deadlock on the Western Front is cited as final proof that the mounted arm was little more than an expensive, unreformed relic by 1914.⁴ However, in recent years a revisionist view has emerged to challenge the idea that cavalry was a military anachronism in the 20th century. Historians such as Stephen Badsey and Gervase Phillips have argued that the British cavalry underwent important and valuable reforms prior to 1914, emerging as an effective battlefield force in the First World War during the more mobile periods of the conflict in 1914 and 1918, whilst also proving valuable in the Middle East.⁵ Far from being wedded to old fashioned shock tactics, the revisionists argue that the British cavalry was considerably in advance of continental rivals in use of the rifle during the pre-First World War period, with tactics comprising an effective hybrid mixture of cold steel charges and dismounted firepower.⁶

² De Groot, Gerard, *Douglas Haig 1861 – 1928* (London, Unwin Hyman, 1988) p.109; Gerard De Groot “Educated Soldier or Cavalry Officer? Contradictions in the pre-1914 Career of Douglas Haig” in *War and Society* 4(2) 1986, p.65; Edward Spiers, “The British Cavalry, 1902-1914” in *Journal of the Society for Army Historical Research*, LVII(230), 1979, p.79

³ Spiers, “The British Cavalry” in *JSAHR*, LVII(230) 1979, p.79

⁴ Ellis, John, *The Social History of the Machine Gun*, (London, Pimlico, 1993), pp.54-55

⁵ Badsey, Stephen, *Doctrine and Reform in the British Cavalry 1880-1918*, (Aldershot, Ashgate, 2008) p.229; Stephen Badsey, “The Boer War (1899-1902) and British Cavalry Doctrine: A Re-evaluation” in *Journal of Military History*, 71(1), 2007 p.76; Gervase Phillips, “The Obsolescence of the *Arme Blanche* and Technological Determinism in British Military History” in *War and Society*, 9(1), 2002, p.39-41; Gervase Phillips, “Scapegoat Arm: Twentieth Century Cavalry in Anglophonic Historiography” in *Journal of Military History* 71(1), 2007, p.38.

⁶ Badsey, “The Boer War and British Cavalry”, in *JMH*, 71(1), 2007, p.76

This chapter will discuss the development of the regular army's mounted forces, tracing how the experiences of the Boer War produced a long running tactical debate that saw cavalry tactics develop considerably from the force that had struggled to cope with the Boers on the veldt. Although the focus will be on experiences and reform of the regular cavalry, British mounted forces in South Africa were made up of a variety of different types of horsemen including Yeomanry, colonial formations and local volunteers. It is difficult to disentangle these jumbled units. Passing reference will be made to the non-regular forces, although the focus will remain firmly fixed upon the regular cavalry and Mounted Infantry. The chapter will be structured around three important developments that came to prominence during the Boer War. The key part of the chapter will centre on the long running firepower versus shock debate that dominated discussion of virtually all aspects of cavalry reform until the outbreak of the First World War. The chapter will also examine the rise and fall of the popularity of Mounted Infantry as a distinct arm in the 1899-1914 period. Finally, the chapter will examine the importance and value of cavalry reconnaissance and its associated skill of horsemastery. Utilising these divisions, this chapter will demonstrate that the British cavalry underwent a difficult and controversial process of reform in the 1899 – 1914 period. At the end, while some weaknesses remained, the cavalry was able to acquit itself well in combat during 1914 using both firepower and cold steel.

The Firepower versus Cold Steel Debate

On the eve of the Boer War the cavalry of the British Army drew inspiration from a variety of different conflicts, including the American Civil War, the Franco-Prussian War and the experience gained in various small scale colonial operations. While views from the continent emphasised the use of the shock charge, dismounted firepower had proved useful in colonial actions, particularly in Afghanistan and on the North West Frontier, and the lack of formal doctrine in the British Army of the time meant that individual officers had considerable leeway to train their men in the use of the rifle if they saw fit. Indeed, the employment of dismounted firepower was becoming fashionable amongst cavalry officers in the 1890s.⁷ Nevertheless, this freedom also meant that reactionary colonels could choose to reject the ideas entirely, while official textbooks placed firm emphasis upon the use of the mounted shock charge with dismounted work being seen as strictly subsidiary.⁸ Lord Wolseley was a particular critic of fighting on foot, arguing in 1891 that “The cavalry soldier is intended to fight on horseback. If you intend to make him fight on foot, well, you will make him into

⁷ Badsey, *Doctrine and Reform*, p.77

⁸ Spiers, Edward, *The Late Victorian Army 1868-1902*, (Manchester, Manchester University Press, 1992) p.260; Grierson, J.M. *Scarlet into Khaki*, (London, Greenhill, 1988), p.146.

a very bad mongrel... I think it would be prostitution of the finest part of our Service if for a moment you convert cavalry into men fighting on foot...”⁹

However, while a variety of ideas were in vogue in the British cavalry prior to the war, the nature of combat in South Africa forced the arm in unexpected tactical directions. The Boers were peculiar opponents for the regular cavalry to face. The commandos were an entirely mounted force but had little tradition of shock charges. Instead, the burghers typically engaged dismounted, taking advantage of the ability to deploy rapidly to seize good positions and then make the most of their rifles. Just as the Boers worked to avoid hand-to-hand struggles against British infantry, they also attempted to avoid mounted clashes with charging British cavalry. Using small, native ponies as their primary mount, the Boer forces were faster and possessed greater endurance than the British cavalry, who were mounted on much larger animals that were often under fed and poorly acclimatised. The result was that with a few important exceptions, the British cavalry were rarely able to catch the Boers to deliver an effective cold steel charge, and were often forced to make much greater use of dismounted fire themselves.

The choice of tactical role to be adopted was complicated by the existence of several notable successes achieved in a traditional mounted role. At Elandslaagte, two squadrons of cavalry had been able to launch a successful charge against disordered, retreating Boers, inflicting heavy casualties and creating a profound impression amongst participants on both sides. Douglas Haig recorded in a letter to his sister that “They [the Boers] are wild at the way the fugitives were killed with the lance! They say it is butchery not war.”¹⁰ A Boer who managed to escape the charge recalled after the war; “Revolvers were being promiscuously fired at us...I could see their long assegais; I could hear the snorting of their unwieldy horses, the clattering of their swords. These unpleasant combinations were enough to strike terror into the heart of any ordinary man.”¹¹ Haig subsequently attributed the shock and fear created amongst the Boers as a key factor in allowing the bloodied British forces at Dundee to retreat unmolested despite their vulnerable condition.¹² The success of the charge also left a profound and lasting impression upon John French, who subsequently recorded the date of the battle in his diary for the rest of his life, the only action to which he afforded such an honour.¹³

⁹ Quoted in Brigadier-General E.C. Bethune, “Uses of Cavalry and Mounted Infantry in Modern Warfare”, in *Journal of the Royal United Services Institute*, 50(1), 1906, p.628

¹⁰ Scott, Douglas (ed.) *Douglas Haig: The Preparatory Prologue 1861 – 1914: Diaries and Letters*, (Barnsley, Pen & Sword Military, 2006), p.132

¹¹ Viljoen, Ben, *My Reminiscences of the Anglo-Boer War*, (London, Douglas & Howard, 1903), p.34. Assegai was a common name for the spears used by various native tribes throughout Africa, and here refers to the lances of the British.

¹² Douglas, *Douglas Haig: The Preparatory Prologue*, p.131

¹³ Holmes, Richard, *The Little Field Marshall: A Life of Sir John French* (London, Weidenfeld and Nicolson, 2004), pp.14, 67

Perhaps an even more important cavalry charge was to take place some months later on 15th February at Klip Drift. Whereas the charge at Elandslaagte had involved just two squadrons of cavalry, at Klip Drift the entire British cavalry division was committed to rapidly break through the Boer lines and raise the siege of Kimberley. Around 900 Boers on a 6 mile front with some artillery support opposed the advance, but despite having the British horsemen under a crossfire for a significant time, casualties were negligible and the cavalry broke through, relieving Kimberley as a result.¹⁴ The advance was hailed as tremendous success by participants including French, Haig, Allenby and Rimington, but it was peculiar in the sense that it was not a ‘shock’ charge in the style of Elandslaagte as the objective was a breakthrough rather than a direct collision with an enemy formation.¹⁵ This factor made the charge somewhat unique and would prove a source of controversy, but at the time the ability for a mass of horsemen to successfully advance across open ground in the face of infantry fire was seen as highly significant.¹⁶ Two days later, the cavalry division achieved further success by outmanoeuvring the Boers who were retreating from Kimberley. French’s cavalry were able to place themselves on the Boer line of retreat at Koodoosrand, holding the position using dismounted tactics and resisting attempts to dislodge them.¹⁷ With British infantry pursuing the Boers and cavalry blocking their line of retreat, Boer leader Piet Cronje made the fateful decision to dig in, ultimately leading to the Battle of Paardeberg and the eventual surrender of virtually his entire force.¹⁸ However, cavalry actions such as Elandslaagte and Klip Drift were relatively rare, and the majority of the work undertaken by the arm in the Boer War involved fighting dismounted.

Two related issues in South Africa made this type of fighting particularly demanding. Firstly, as discussed in earlier chapters, the crystal clear atmosphere of the veldt meant that targets could be spotted and engaged at incredibly long ranges, allowing the Boers to snipe at British troops from exceptional distances. Secondly, the Boers were armed with infantry rifles as compared to the carbines of the cavalry. The carbine was a small weapon that was easy to carry on a horse, but it was not designed for long range shooting and was thus considerably outranged by the Boer Mausers. Forced to engage at such unusual ranges in dismounted actions, the inadequacies of the weapon were soon exposed and a chorus of criticism followed. An officer of the 18th Hussars complained “The carbine is useless as opposed to the modern pattern rifle, being completely outranged... On many occasions during the present campaign, the men under my command have had to submit to a heavy rifle fire at ranges 2,500 – 3,000 yards, being quite unable to reply with the carbine...”¹⁹ Charles

¹⁴ Badsey, *Doctrine and Reform*, pp.103-104

¹⁵ Amery, Leo (ed.) *The Times History of the War in South Africa*, (London, Sampson Low, Marston and Company, 1905), Volume 3, pp.393 – 395 (hereafter *Times History*)

¹⁶ *Ibid*, pp.394-395;

¹⁷ Anglesey, Marquess of, *A History of the British Cavalry 1816 – 1919, Volume IV: 1899 – 1913*, (London, Leo Cooper, 1986) pp.140-142

¹⁸ *Ibid*, p.142

¹⁹ TNA WO 108/272 Extracts from Reports of Officers Commanding Units in South Africa 1899 – 1901: Rifles, Carbines and Bayonets. ‘Carbine General Serviceability’ – Response #191

Warren noted similar problems, complaining that although the carbine was accurate up to around 1,200 yards, “...beyond that it rapidly tails off, and consequently the cavalry when armed with it were at a great disadvantage when meeting Boers. The Boers had only to keep at 2,000 yards from our cavalry in the hills, and they could shoot them down with impunity or surround them... they [the cavalry] were practically useless in hilly country, and could not do the duties of cavalry or mounted infantry.”²⁰ A handful of officers came to the defence of the carbine, but in the face of bitter combat experience, such views were in a distinct minority.²¹

With the carbine proving inadequate in combat and cavalry being outranged in dismounted fire fights, it became necessary to seek a replacement weapon. Aside from keeping the carbine, the only option was to equip the cavalry with infantry rifles, which possessed the range and accuracy to compete with the Boer Mausers. However, the advantage of the carbine lay in its small size, allowing it to be carried without undue encumbrance, and while the rifle gave cavalry greater strength in dismounted combat, its large size was a problem for already overburdened horses and it proved awkward to carry in addition to swords and lances. As the war moved into the guerrilla stage, the need for the cavalry to possess high levels of endurance and mobility became even greater, and the extra weight of equipment posed serious questions about the role of the mounted arm in South Africa. The Earl of Scarborough noted that the cavalry during this period “...were working all day long to find the enemy, and acting practically as Mounted Infantry, attacking positions, and when the enemy did retire their horses were completely done up, so that they were not able to deliver any effective pursuit or to overtake them.”²² With dismounted action the main employment for cavalry, even cavalry officers such as Douglas Haig had cause to doubt the value of the *arme blanche*, Haig writing soon after the war had begun “It is a question whether the Dragoon-lancer is not a mistake! His lance hampers him.”²³

In early 1900 Lord Roberts had toyed with the idea of removing steel weapons from the cavalry to improve their mobility and reduce encumbrance when fighting dismounted. However, the reaction from officers to the proposal was largely negative and Roberts did not formally introduce the policy, instead leaving the decision to local commanders.²⁴ Nevertheless, the germ of the idea remained, and returned to prominence following the fall of the Boer capitals. In the small scale skirmishes and ambush actions that were typical of the early part of the guerrilla phase of the war, being able to dismount rapidly and take up effective positions was crucial to tactical success.²⁵ Conversely, the cavalry had few opportunities to deliver shock charges against small groups of scattered Boers in this

²⁰ *Elgin Commission*, Vol.2, Q15850, p.233

²¹ Defenders of the weapon included Redvers Buller and M.F. Rimington. See TNA WO 108/272, ‘Carbine Accuracy’ – Response #1 and *Elgin Commission*, Vol.2, Q12687, p.29 respectively.

²² *Elgin Commission*, Vol.1, Q7308, p.311

²³ Quoted in Cooper, Duff, *Haig*, (London, Faber and Faber, 1935), Volume 1, p.379.

²⁴ TNA WO 105/29 ‘Opinions as to the arming of the cavalry with the long rifle’

²⁵ Captain J. Vaughan, “Cavalry Notes: South Africa 1899 -1900” in *Journal of the Royal United Services Institute* 45(1) 1901, p.452

stage of the war, and in combination with demands for ever greater mobility to catch rapidly moving commandos, the balance between the value of rifle and cold steel seemed to tip in favour of firepower. This culminated in October 1900, when lances and swords were officially withdrawn from regular cavalry regiments.²⁶ An order from Kitchener's headquarters added that "The rifle will henceforth be considered the cavalry soldier's principal weapon", while Lord Methuen echoed similar sentiments on cavalry armament when he argued "In this campaign I should say any weapons but a rifle is an incumbrance.[sic]".²⁷ The policy stirred up considerable controversy and was strongly opposed by cavalrymen such as John French, who sought and received permission to ignore the order for troops under his command.²⁸ Column commanders were also given a certain degree of flexibility on the armament of their cavalry, which allowed some units to retain edged weapons longer than others. For example, the 5th Lancers were still carrying their lances as late as June 1901, until their column commander Horace Smith-Dorrien informed them they could either keep the lance and remain in camp, or abandon the weapon and stay in action.²⁹

Opponents of the decision such as French and Haig argued that removing the *arme blanche* seriously diminished 'cavalry spirit', suggesting purely rifle armed horsemen lacked morale and fought in a timid manner. In May 1901 Haig bemoaned such an attitude, noting after a small action involving mounted forces that "Many men do not care to be shot at, and instead of pushing on, were satisfied at shooting off their rifles at 2,000 yards. This sort of thing will never end the war...", while Rimington felt that it caused the fighting to devolve into "...fire at long distances and infinitely wearisome tactics..."³⁰ A further criticism of the policy was that the absence of close combat weapons encouraged the Boers to approach to close range during attacks against the British, either dismounting and making use of snap shooting to overwhelm the enemy or even launching mounted charges, firing from the saddle.³¹ These methods were a striking change from the tactics employed in the early stage of the war, and could prove highly effective in the right circumstances. At Blood River Port, 17th September 1901, an advance guard of around 250 Mounted Infantry was lured into a hasty attack on dismounted Boers, only to find themselves pinned by rifle fire to the front and charged from the right flank by mounted commandos, who killed or captured the entire force including commanding officer Hubert Gough.³² Similar results were achieved by the Boers at Onverwacht, 4th January 1902, when a

²⁶ Anglesey, *History of the British Cavalry*, Vol.4, p.236

²⁷ Ibid, p.236; TNA WO 108/273 Extracts from Reports of Officers Commanding Units in South Africa 1899 – 1901: Swords and Lances: 'Lance' – response #2

²⁸ Anglesey, *History of the British Cavalry*, Vol.4, p.236

²⁹ Smith-Dorrien, Horace, *Memories of Forty-Eight Years' Service* (London, John Murray, 1925) pp.260-61

³⁰ Douglas, *Douglas Haig: The Preparatory Prologue*, p.189; Rimington, M.F., *Our Cavalry*, (London, Macmillan, 1912) pp.74-75

³¹ Anglesey, *History of the British Cavalry*, Vol.4, p.264

³² Maurice, Frederick (ed.) *History of the War in South Africa* (Uckfield, Naval & Military Press 2007) Vol.2, pp.217-218 (Hereafter referred to as *Official History*)

double envelopment was made by mounted commandos after dismounted Boers had acted as bait.³³ The skill of these Boer attacks often left British observers impressed. An assault on a supply convoy in Western Transvaal in October 1901 saw three commandos launch a combined charge, each forming up two or three lines deep and charging “like a regiment of European cavalry straight for the centre of the convoy.”³⁴ Perhaps the greatest success achieved by a Boer assault came at Tweebosch 7th March 1902, when a commando attacked and overwhelmed a British column, wounding and capturing Lord Methuen in the process. Methuen himself described the Boer rush as “a magnificent charge”.³⁵ Although Boer charges could end in failure, such as at Rooiwal 11th April 1902 where the British stood firm and shot the Boers down as they advanced, the experiences left a profound impression upon the army. Explaining the reasons for the success of such tactics and what they suggested for the future remained a contentious issue for much of the period.

After the conflict had finally come to an end, a number of officers cited the absence of edged weapons as encouraging the Boers to make such bold charges.³⁶ While British cavalry remained armed with cold steel, it was suggested that the Boers would not approach for fear of being counter charged, but once the weapons had been removed, the confidence of the Boers markedly increased. John French “...was perfectly certain that on several occasions if we had stuck to our swords and lances, our men would not have been ridden down by the Boers with their rifles.”³⁷ Although referring to his experiences in the Yeomanry, one officer summed up the effect the removal of the lance apparently had upon Boer tactics when he noted “...directly they found that we had not a lance, which they hold in mortal dread... then they said: ‘Hello, here are these fellows, we can go at them’, and they came at us, and used to kick us from one end of the country to the other.”³⁸ However, not all officers felt that the removal of the *arme blanche* was to blame for encouraging Boer attacks. Firepower advocates such as Ian Hamilton argued that the veteran status of the surviving commandos made them more inclined towards bold tactics, while the poor shooting of irregular mounted formations such as the second contingent of Yeomanry meant the Boers knew they could charge across the fire swept zone with relatively minor losses.³⁹ Nevertheless, even some outside the cavalry branch wondered whether the complete removal of steel weapons had not ultimately been a step too far. For example, in early 1900 Sir Howard Vincent had confidently predicted “...*the day of the sword is done* save as an emblem. It is doubtful if a sword in this campaign has ever inflicted a wound upon anyone save upon

³³ Anglesey, *History of the British Cavalry*, Vol.4, p.266

³⁴ Quoted in *Ibid*, p.267

³⁵ Miller, Stephen, *Lord Methuen and the British Army: Failure and Redemption in South Africa* (London, Frank Cass, 1999) p.229

³⁶ *Elgin Commission*, Vol.1, Q6780, p.290; Q6843, p.294; Q7044, pp.300-301

³⁷ *Elgin Commission*, Vol.1, Q6780, p.290

³⁸ *Elgin Commission*, Vol.1, Q6843, p.292

³⁹ *Elgin Commission*, Vol.2, Q13886, p.105

the hips and legs of the wearer, or the flanks of a horse.”⁴⁰ However, by 1902 he had reversed his position and was expressing concern that the army had gone too far in turning cavalry into mounted infantry, citing the successful charge at Elandslaagte as “one of the few real lessons we have been able to drive home in blood to the enemy.”⁴¹

For the cavalry, the experiences of the Boer War had been confusing and the lessons far from self evident. Whereas the infantry could look towards improved marksmanship and extended formations as crucial lessons, the direction to take for future cavalry reform was less clear. The key tactical question that required resolution was whether firepower or shock action was to be the primary mode of engagement for cavalry. Dismounted action had been the principal tactic employed for much of the war and cold steel had achieved relatively little, but the policy to remove edged weapons entirely had been distinctly unpopular and had arguably contributed to a number of small scale British defeats. Furthermore, the success of the charges at Elandslaagte and during the Klip Drift operation showed the potential of more traditional cavalry methods, while the ability of the Boers to charge across fire swept zones suggested that modern rifles were not as decisive at stopping mounted troops as firepower advocates such as Hamilton argued. Reconciling these views and solving the problem of future cavalry tactics was to produce a stormy debate that was to impede effective reform for several years. The heart of the debate was between those who favoured dismounted firepower as the principal tactic, championed by Lord Roberts, and those who preferred shock action, headed by John French. Although there were extreme views on the fringes of both camps, at its heart the debate was relatively narrow.⁴² Both schools of thought emphasised flexibility of method and essentially advocated the creation of a hybrid soldier who could fight effectively both mounted and on foot.

Roberts and his core supporters wished to see cavalry reform based on the dismounted experiences of South Africa, but had no wish to abolish shock action entirely. Speaking before the Elgin Commission, Roberts summed up his views as “...although it is very desirable that cavalry should be expert with their swords and trained for shock tactics, my belief is that in future wars shock tactics will be few and far between, and that cavalry will have to fight far more frequently on foot...”⁴³ Ian Hamilton expressed stronger opinions, feeling that the sword and lance were “medieval toys” on a modern battlefield and that dismounted cavalry with good rifles would have a distinct advantage over troops looking to force a mounted action.⁴⁴ Such opinions drew the ire of cavalrymen, Hamilton

⁴⁰ Colonel Sir Howard Vincent, “Lessons of the War: Personal Observations and Impressions of the Forces and Military Establishments Now In South Africa” in *Journal of the Royal United Services Institute* 44(1) 1900, p.634 (Emphasis in original)

⁴¹ Colonel Sir Howard Vincent, “The Situation in South Africa: Further Personal Observations and Impressions” in *Journal of the Royal United Services Institute* 46(1) 1902, p.182

⁴² Badsey, *Doctrine and Reform*, p.151

⁴³ *Elgin Commission*, Vol.2, Q13247, p.66. See also Roberts’s response in Vol.1, Q10409, p.439 for similar views.

⁴⁴ *Elgin Commission*, Vol.2, Q13941, p.109

noting on his personal copy of the commission's report that "This infuriated Haig and French beyond measure", while future Chief of Imperial General Staff William Nicholson reportedly annotated his own copy with "This man has a tile loose!"⁴⁵ Nevertheless, Hamilton followed Roberts's line and expressed his support for the retention of the sword, albeit as a secondary weapon to the rifle.⁴⁶ The viewpoint offered by Roberts attracted support from a variety of sources. For example, Austro-Hungarian Field Marshal Gustavus Retzenhoffer was impressed by British cavalry's dismounted work in South Africa, feeling it distinguished itself in the role and calling for a thorough study of the details to assist in future training in Austro-Hungary.⁴⁷ Even some cavalymen supported Roberts's ideas, including successful Boer War commander Lord Dundonald, who felt the ideal cavalryman should be a first class rifle shot above all other considerations.⁴⁸ Dundonald went on to embody his views in the Canadian edition of *Cavalry Training 1904*, arguing that cavalry who could "coolly dismount" in the face of a mounted charge could kill as many men in five minutes with their fire as could be killed in five hours by cold steel.⁴⁹ There were a few individuals at the periphery of the debate who called for the abolition of the *arme blanche* entirely, including Winston Churchill who urged the cavalry to abandon "the sharp sticks and long irons" which were fit only for savage and medieval wars, but such views were in a minority.⁵⁰ Instead, the views offered by Roberts and his supporters were relatively moderate and represented a change of tactical emphasis towards dismounted work rather than a complete revolution.

Those who opposed the firepower school were primarily led by cavalymen John French and Douglas Haig, and were termed the "Old School" by Lord Roberts.⁵¹ Although their continued belief in the viability of shock action has been used as a means to criticise them as reactionary by historians such as Gerard De Groot and Tim Travers, in reality their viewpoint was not as divergent from Roberts and his supporters as it initially appeared.⁵² Early in the Boer War, Haig had been impressed with the ability of the Boers to move rapidly to a flank, before dismounting and pouring enfilade fire into advancing infantry, suggesting that it could be imitated by British cavalry.⁵³ By the end of the conflict, while remaining critical of the withdrawal of steel weapons in South Africa, Haig argued that "The ideal cavalry is that which can fight on foot and attack on horseback", although he felt the morale advantages and potential for decisive success meant that shock action should take precedence

⁴⁵ Lee, John, *A Soldier's Life: General Sir Ian Hamilton 1853 – 1947* (London, Pan, 2001) p.75

⁴⁶ *Elgin Commission*, Vol.2, Q13941, p.109

⁴⁷ Field Marshal Gustavus Retzenhoffer, (trans. Lt. Col. E. Gunter), "A Retrospect of the War in South Africa" in *Journal of the Royal United Services Institution*, 45(1) 1901, p.42

⁴⁸ Major General C.E. Webber, "Army Reform Based on some 19th Century Lessons in Warfare" in *Journal of the Royal United Services Institution*, 45(1) 1901, p.389

⁴⁹ Quoted in Rimington, *Our Cavalry*, p.55

⁵⁰ Quoted in Anglesey, *History of the British Cavalry*, Vol.4, p.391; Badsey, *Doctrine and Reform*, p.151

⁵¹ Anglesey, *History of the British Cavalry*, Vol.4, p.389

⁵² De Groot, "Educated Soldier or Cavalry Officer?" in *WS*, 4(2), p.60-61; Travers, Tim, *The Killing Ground: The British Army, the Western Front and the Emergence of Modern War 1900-1918*, (Barnsely, Pen and Sword Military Classics, 2003), p.5

⁵³ Cooper, *Haig*, Vol.1, pp.378-379

in most circumstances.⁵⁴ French offered similar views, arguing that “...no stone should be left unturned to make cavalry soldiers the best possible shots and thoroughly adept in all dismounted duties”, but cautioned that such tactics had a time and a place, and that over-reliance upon them would fatally erode cavalry morale and make them vulnerable to more aggressive enemy horsemen.⁵⁵ The ‘Old School’ pointed towards Elandslaagte and Klip Drift as examples of traditional cavalry employment, arguing that the failure to carry out more successful charges was primarily due to the poor condition of the horses rather than any inherent tactical weaknesses.⁵⁶ Despite the limitations imposed by exhausted mounts, French argued that the cavalry had been able to drive off Boers on a number of occasions by boldly advancing against them, even if a physical charge was out of the question and the men had only been able to get their speed up by flogging their horses with the flat of the sword.⁵⁷ While the ‘Old School’ had common ground with Roberts and his supporters in acknowledging the value of the firearm, French and his fellow cavalry officers argued strongly for the principal focus to remain upon usage of the *arme blanche*.⁵⁸

However, the initially subtle difference in emphasis became a sore point that gradually forced the two camps further apart. While these competing theories struggled for prominence throughout the period, it was initially Roberts and his ‘New School’ that held the advantage. Roberts was in place as Commander in Chief of the British Army and had the prestige earned in South Africa to give weight to his policies. Emphasising his belief in the value of dismounted firepower, Roberts had been considering the complete removal of the lance as a combat weapon in 1901, and made the policy official in March 1903, retaining it only for ceremonial duties and potentially for use against tribal foes.⁵⁹ Roberts acknowledged that the weapon had some positive attributes, including inducing terror in the enemy when used in pursuit such as at Elandslaagte, but argued that unless the foe was in an unprecedented state of disorder any pursuing cavalry would be better served by cutting off the retreat with dismounted action as at Koodoosrand.⁶⁰ The lance was also held to offer some advantages in a charge against enemy cavalry, where it could potentially bring down the entire front rank on impact, but this was a theoretical aim that had never been achieved in actual warfare.⁶¹ Conversely, Roberts argued that the lance was an easily spotted encumbrance when scouting and crucially was a positive

⁵⁴ *Elgin Commission*, Vol.1, Q19299, p.403

⁵⁵ TNA WO 163-10 ‘Report to the Army Council on the Role of the Cavalry by the Commander of the 1st Army Corps’ 7th March 1904, pp.120 - 122

⁵⁶ Rimington, *Our Cavalry*, p.82

⁵⁷ TNA WO 163-10 ‘Report to the Army Council on the Role of the Cavalry by the Commander of the 1st Army Corps’ 7th March 1904, p.122

⁵⁸ *Ibid*, p.120

⁵⁹ Wessels, Andre (ed.) *Lord Roberts and the War in South Africa 1899 - 1902*, (Stroud, Army Records Society, 2000), p.80-81; TNA WO 163-10 Army Order 39 March 1903, p.123

⁶⁰ TNA WO 163-10 ‘Circular Memo on Cavalry Role and Armament’ 10th March 1903, p.127

⁶¹ *Ibid*, p.126; Major General M. Von Czerlieu, “The Lance as the Weapon of Cavalry” in *Journal of the Royal United Services Institution*, 47(1), 1903, pp.40-41

hindrance when fighting in a dismounted action.⁶² With opportunities for shock action likely to be limited in the future, Roberts saw no value in retaining the awkward weapon, relying instead upon the sword should a charge become necessary.

Roberts also made clear that future cavalry tactics must depend on the rifle as their principal arm in *Cavalry Training* 1904, the first cavalry manual to be issued following the Boer War. The volume was relatively moderate in tone, approving of the use of both dismounted fire and shock charges. However, Lord Roberts was unsatisfied with the manual as it stood, and took the unprecedented step of adding a preface expressing his own belief in the rifle and highlighting its importance in future tactics. Explaining what the improvements in rifle technology entailed for the cavalry, Roberts argued:

...the sword must henceforth be an adjunct to the rifle; and that cavalry soldiers must become expert rifle shots and be constantly trained to act dismounted... I should consider that a leader who failed to take advantage of an opportunity for employing shock tactics when required to close with the enemy was unfit for his position. But I cannot agree with those military experts who hold that, in future wars, cavalry shock tactics will form as prominent a feature as heretofore. I think the improvement in firearms will give the victory to the side which can first dismount on ground less favourable to a charge than an open plain...⁶³

The removal of the lance and insertion of the preface to *Cavalry Training* 1904 marked the high water mark of Roberts's influence and created a storm of controversy amongst the cavalry. The existence of the preface was highly irregular, with no other training manual possessing such an introduction. This anomaly caused the Army Council to have serious misgivings about its publication, only issuing it with the note that the manual was 'Provisional'.⁶⁴ Many cavalymen felt that the preface was a direct attack upon their arm, and the Inspector General of Forces noted that cavalry officers of all ranks were solidly united against the inclusion of the preface and wished to see it withdrawn.⁶⁵ While Roberts rejected such critics as reactionary 'Old School' officers, they represented a broader consensus including genuine cavalry reformers.⁶⁶ Ironically, the creation of the controversial preface was to be one of the final acts of Lord Roberts in an official capacity. Soon after its issue, the recommendations of the Esher Committee unceremoniously swept the position of Commander in Chief away to be replaced with a General Staff headed by Neville Lyttelton. Removed from his position of authority, Lord Roberts's influence on the debate declined considerably, although for the rest of his life he remained vociferous on the need for the cavalry to improve its capacity to fight dismounted.

⁶² TNA WO 163-10 'Circular Memo on Cavalry Role and Armament' 10th March 1903, p.127

⁶³ War Office, *Cavalry Training 1904 (Provisional)* (London, H.M.S.O, 1904) p.v

⁶⁴ Angelsey, *History of the British Cavalry*, Vol.4, pp.395-396

⁶⁵ TNA WO 163/10 – Inspector General of Forces Report for 1904, p.302 (hereafter IGF Report)

⁶⁶ Badsey, *Doctrine and Reform*, p.183

However, his role in discussions of cavalry tactics was now marginal, and the controversial preface was dropped from a reprint of *Cavalry Training 1904* issued in January 1905. The removal of the preface also meant that the Army Council dropped the 'Provisional' tag from the reprinted manual.

Although the Roberts era was relatively short, its influence on the cavalry reform debate was considerable. As Stephen Badsey has argued, constant criticism from the press and the 'New School' thinkers directed against regular army cavalry had caused considerable demoralisation in the arm.⁶⁷ Declining morale amongst the cavalry was a matter of official concern, especially as it resulted in a large number of resignations and a consequent shortage of officers.⁶⁸ An Army Council discussion in 1905 on the lack of cavalry officers noted unhappily that "There is a general agreement that the press and public opinion have disheartened cavalry officers by attacking and abusing them..."⁶⁹ In April 1905, the Inspector General of Cavalry called for the creation of a journal for the cavalry branch, feeling that there was "...special necessity for it at present owing to the feeling of discouragement which...exists at present amongst our cavalry officers."⁷⁰ Even members of the 'New School' such as Ian Hamilton expressed concerns over the demoralisation that had been produced amongst the mounted troops, noting that cavalry in Southern Command in 1906 were showing a tendency to be overly cautious and reluctant to engage unless the opportunities were ideal. Hamilton called for a renewal of offensive cavalry spirit, and made the suggestion that over emphasis in training on the casualties that would be suffered at the hands of rifle fire may have been the root cause.⁷¹ Although tactical training at brigade level and below demonstrated considerable improvement over the period, the ongoing debate between Roberts and the 'Old School' had the effect of creating doubt about overall cavalry doctrine.⁷² In 1905 the Duke of Connaught praised the professionalism and keenness of cavalry officers in both mounted and dismounted work, but cautioned that an overall direction for training needed to be agreed upon, writing "We have yet to learn the precise role of Cavalry under recent changes, and to what end to shape our training..."⁷³

The departure of Lord Roberts coincided with the outbreak of the Russo-Japanese War in the Far East, and an opportunity to draw fresh examples to fuel the cavalry debate. As with the infantry and artillery, the cavalry of the British Army took a keen interest in this clash between two modern forces organised on European lines. However, in terms of mounted troops, the two opposing armies were somewhat unique. The Japanese had poor horse breeding stock and thus deployed relatively few

⁶⁷ Ibid, pp.188-189

⁶⁸ Ibid, p.188

⁶⁹ TNA WO 163-10 Army Council Précis: Précis 248 – Cavalry Officer Shortage, p.470

⁷⁰ TNA WO 163/10 - Army Council Précis: Précis 216 – Establishment of a Cavalry Journal, p.373

⁷¹ Lt. General Sir Ian Hamilton, "The Training of Troops During 1906" in *Journal of the Royal United Services Institute* 50(2) 1906, p.1518

⁷² TNA WO 163/10 – IGF Report for 1904, pp.301-304; TNA WO 163/11 – IGF Report for 1905, pp.155 – 156; 162

⁷³ TNA WO 163/11 – IGF Report for 1905 p.163

horsemen into the field, but followed a German inspired tactical model emphasising shock action. Conversely, the Russians had a very large number of Cossacks armed with carbines and trained in dismounted work, but possessed only a handful of regular army cavalry units that arrived late in the war. On paper therefore, the conflict seemed to provide a potential guide between the relative values of dismounted work against shock action. However, in reality a variety of factors meant that drawing useful cavalry lessons proved harder than anticipated. The widespread use of entrenchments and obstacles combined with difficult and often mountainous terrain to curtail the activities of the mounted arm. Despite their enormous numerical superiority, the Cossacks performed poorly and were universally condemned by critics.⁷⁴ One British observer summed them up as “pretty well useless for war purposes” and thought the cavalry of any European country were superior to them both mounted and dismounted.⁷⁵ Although ostensibly trained in dismounted work, critics pointed to the fact that Cossack marksmanship was abysmal and seriously limited their ability to fight on foot.⁷⁶ Although echoing the criticism of the Cossacks, senior British observer Ian Hamilton felt that the war in Manchuria had been full of opportunities for effective dismounted work but complained that they were rarely taken.⁷⁷ Conversely, those who favoured shock tactics looked upon the dismal performance of the Cossacks as proof that an over emphasis on dismounted firepower detracted from cavalry spirit and left the soldiers “emasculated.”⁷⁸ While the Japanese cavalry had achieved little of note, their preference for shock action and the fact they were on the winning side was offered as proof of the superiority of their tactics.⁷⁹ However, there were few examples of successful cavalry actions from which to draw future lessons. Indeed, the tiny Japanese cavalry force was so peripheral to the main struggle that at the Battle of Liao-Ying in September 1904, Japanese cavalymen were assigned to carry and cook rations for the infantry.⁸⁰ Overall, the Russo-Japanese War offered little fresh to the existing debates within the British cavalry and gave no clear direction for future reform. Lacking useful combat examples, participants in the debate tended to use the experience to confirm pre-existing views. For example, Ian Hamilton confessed to feeling a “malicious satisfaction” that cavalry had achieved little success in shock action, feeling it helped prove the correctness of his

⁷⁴ For criticism of Russian cavalry, see the military attaché reports contained in TNA WO 33/350; WO 106/181 and WO 33/618

⁷⁵ TNA WO 33/350 - Reports from Manchuria pp.40, 42

⁷⁶ General De Negrier, “Some Lessons of the Russo-Japanese War” in *Journal of the Royal United Services Institution*, 50(1) 1906, pp.688 - 689

⁷⁷ Hamilton, Ian, *A Staff Officer's Scrap Book During the Russo-Japanese War* (London, E. Arnold, 1908) Vol.1, pp.278-279

⁷⁸ Quoted in Brian Bond, “Doctrine and Training in the British Cavalry, 1870 – 1914” in Howard, Michael (ed.), *The Theory and Practice of War: Essays Presented to Captain B.H. Liddell Hart on his 70th Birthday* (London, Cassell, 1965) p.114

⁷⁹ Angelsey, *History of the British Cavalry*, Vol.4, p.405

⁸⁰ Captain C.W. Battine, “The Use of the Horse Soldier in the Twentieth Century” in *Journal of the Royal United Services Institute*, 52(1), 1908, p.309.

earlier deductions from the Boer War, while Michael Rimington felt the conflict merely proved that the Russian cavalry had been “...trained and organised for twenty years on wrong principles...”⁸¹

Although the Russo-Japanese War offered few hints for future tactics, the need to decide on a tactical direction in the cavalry remained. A combination of factors, including the departure of Lord Roberts, continuing doubts about the future direction for cavalry tactics, and the declining morale of the arm all gave added impetus to the ‘Old School’ theorists such as French and Haig. Both of these men held greater influence in the absence of Lord Roberts and could reshape cavalry along their own ideas, placing renewed emphasis on cold steel. For example, French had never approved of the removal of the lance as a weapon, ignoring the order to discard it and turning a blind eye to its continued use at Aldershot. His continued support for the weapon ultimately led to the Army Council reinstating the lance for lancer regiments in 1909.⁸² Perhaps more importantly, cavalry tactics were changed to reflect the ideas of the ‘Old School’, and *Cavalry Training 1907* therefore represented a departure from the 1904 edition, acknowledging dismounted work but placing much greater emphasis on the value of shock action and not even listing the word ‘rifle’ in the index.⁸³ Gerard De Groot has been critical of this manual and termed the period as an era of “Cavalry Counter Reformation”, but Stephen Badsey has argued that *Cavalry Training 1907* was a more subtle work that intentionally placed an overt emphasis on the charge as a means of restoring the dented pride of the mounted arm.⁸⁴ An infamous passage in the 1907 manual referred to the rifle being unable to match “...the speed of the horse, the magnetism of the charge and the terror of cold steel”, but as Stephen Badsey and Richard Holmes have noted, taken within the context of the time this was not a desperate reaction against modern conditions, but in fact a passage based on practical combat experience in South Africa and the desire to restore cavalry confidence.⁸⁵ In this latter respect, *Cavalry Training 1907* had some success. For example, in 1908, Ian Hamilton was pleased to find his cavalry had recovered much of the vigour they had lacked two years earlier, noting that they now “took their full share of the fighting.”⁸⁶ The exaltation of shock tactics found in the 1907 manual was not continued in later editions, lending weight to the idea suggested by Stephen Badsey that it represented something of a temporary expedient to provide direction to a confused and demoralised cavalry arm. By the time of *Field Service Regulations 1909*, the tone was considerably more moderate, with emphasis being placed upon tactical flexibility and the independence granted to cavalry by their rifle armament.⁸⁷ The trend

⁸¹ Hamilton, *Staff Officer's Scrap Book*, Vol.1, p.197; Rimington, *Our Cavalry*, p.75

⁸² TNA WO 163/14 – Army Council Précis: Précis 419, p.71

⁸³ Angelsey, *History of the British Cavalry*, Vol.4, p.398

⁸⁴ De Groot, *Haig 1861 – 1928*, p.124-125; Badsey, *Doctrine and Reform*, p.210

⁸⁵ Holmes, Richard *Riding the Retreat: Mons to the Marne 1914 Revisited* (London, Pimlico, 2007) pp.61-63; Badsey, *Doctrine and Reform*, p.210

⁸⁶ General Sir Ian Hamilton, “Remarks by General Sir Ian Hamilton, Commander in Chief Southern Command, on the Training of Troops during 1907”, in *Journal of the Royal United Services Institution*, 52(1), 1908, pp.83-84

⁸⁷ War Office, *Field Service Regulations 1909* (London, H.M.S.O, 1909) p.12

was continued in *Cavalry Training* 1912, which saw opportunities for combining both fire and shock to good effect, drawing upon the support of rifles, machine guns and horse artillery where possible.⁸⁸

Indeed, it was not dedication to either shock or fire, but the idea of combining both tactics to create a hybrid approach that came to dominate the cavalry debate in the years prior to the First World War. Although *Cavalry Training* 1907 strongly favoured shock as a means of restoring cavalry pride, at a tactical level there was still great interest in the use of firepower and dismounted work. Few in Britain saw opportunities for charges against enemy infantry unless the foe was surprised or disordered, and instead the main target for shock attacks was to be enemy horsemen. Shock action was seen as being of primary importance during the opening of a European conflict, when there was an almost universal assumption, both in Britain and on the continent, that the war would begin with a vast cavalry engagement that would determine which side would hold the upper hand in reconnaissance.⁸⁹ This specific duty was seen as the most likely opportunity for shock action. Charles Repington summed up the attitude in an article published in the first issue of the *Cavalry Journal* when he wrote “Shock tactics in these days refer to the shock of cavalry against cavalry.”⁹⁰ For the job of destroying enemy cavalry, firepower was regarded as being too slow and potentially unreliable. Although in 1904 Lord Dundonald had felt dismounted troopers could kill far more enemy cavalry with the rifle than the sword, by 1912 ex-Mounted Infantry officer Henry DeLisle argued that such tactics would lead to indecisive long distance shooting and a mutual standoff, preventing effective reconnaissance.⁹¹ Indeed, it was felt by some that the cavalry had achieved a tactical advantage if it could somehow compel the enemy to dismount through either fire or manoeuvre, thus depriving it of its mobility.⁹² Furthermore, electing to dismount against aggressive, mounted cavalry carried with it a risk of being swept away by an enemy charge before it could be stopped. The Boer War was cited as a potential example of this situation, particularly the fact that untrained burghers on small ponies had been able to cross fire swept zones and deliver surprisingly effective charges, with one officer noting that experiences in South Africa suggested that even his best marksmen were often intimidated by the sight of an enemy charging towards him, losing accuracy as a result.⁹³ Nevertheless, although shock action against cavalry was favoured, emphasis remained on flexibility, particularly making the best use of the ground and immediate tactical situation. For

⁸⁸ War Office, *Cavalry Training* 1912, (London, H.M.S.O, 1912) pp.268-271

⁸⁹ For example: Unknown Translator, “German Ideas on the Role and Employment of Cavalry” in *Journal of the Royal United Services Institute*, 48(2), 1904, p.947; Brevet-Major W.D. Bird, “Some Notes on Modern Tactics”, in *Journal of the Royal United Services Institute*, 53(1), 1909, p.493; Brigadier-General H. DeLisle, “The Strategical Action of Cavalry”, in *Journal of the Royal United Services Institute*, 56(1), 1912, p.788

⁹⁰ ‘Special Correspondent’ (Charles Repington), “Cavalry Lessons of the War”, in *Cavalry Journal*, 1, 1906, p.58

⁹¹ DeLisle, “Strategical Action of Cavalry” in *JRUSI*, 56(1), 1912, p.788; See also Bird, “Notes on Modern Tactics”, in *JRUSI*, 53(1), 1909, p.493.

⁹² Captain R.V.K. Aplin, “Machine Guns in Our Own and Other Armies” in *Journal of the Royal United Services Institute*, 54(1), 1910, p.50

⁹³ *Elgin Commission*, Vol.1, Q6827, p.109

example, following an inspection of the Cavalry Division in 1909, Douglas Haig complained that not enough attention was paid to the use of the ground in determining cavalry tactics, writing;

The principles which should determine the choice between mounted and dismounted action require to be more thoroughly considered... squadrons have been seen to remain mounted in enclosed country when under fire at close range from dismounted men.⁹⁴

The flexible combination of both fire and shock was also emphasised in engaging enemy infantry. While the initial priority was considered to be targeting enemy mounted troops, once the opposing horsemen had been defeated or at least driven off it was assumed the cavalry would have more tactical freedom to engage the infantry. Although officers saw the potential for successful charges against enemy infantry if conditions were favourable, it was recognised that such opportunities would be very rare.⁹⁵ To successfully charge enemy infantry, it was considered necessary to either achieve local surprise or for the enemy to be in a state of disorder and unable to resist effectively. Some officers thought that modern war made these circumstances more likely, with wide battlefronts giving the cavalry more room for manoeuvre, extended infantry formations lacking cohesion and discipline, and long, intense battles leaving troops exhausted and thus prone to panic at the sight of charging horsemen, a concept that was endorsed by *Cavalry Training 1907*.⁹⁶ Nevertheless, training exercises emphasised that cavalry should avoid reckless, headlong charges against infantry when dismounted action could serve them better.⁹⁷ This idea was highlighted in *Cavalry Training 1912*, with the focus resting upon using dismounted fire and shock action in combination to overwhelm enemy formations, the manual arguing that such tactics “present the greatest chance of success.”⁹⁸ Armed with machine guns and horse artillery, and possessing a high standard of individual musketry, it was also anticipated that British cavalry could hold their own against enemy infantry formations, even to the point of concealing their ‘led horses’ and deceiving the foe into thinking he was facing a genuine infantry formation.⁹⁹ The ‘hybrid’ cavalryman that emerged in the years preceding the First World War was a compromise yet practical solution to the New School versus Old School debate that had followed the Boer War. Dismounted training ensured the cavalry could fight effectively in difficult terrain, while retaining shock action meant it would be capable of seizing sudden opportunities to charge such as occurred at Elandsplaagte, as well as maintaining the morale and cavalry spirit that had been in decline during the Roberts era.

⁹⁴ Quoted in Rimington, *Our Cavalry*, p.51

⁹⁵ For example, Lt. Colonel C.B. Mayne, “The Lance as a Cavalry Weapon” in *Journal of the Royal United Services Institute*, 49(1), 1905, pp.120-121; Brigadier-General M.F. Rimington, “The Spirit of Cavalry Under Napoleon” in *Journal of the Royal United Services Institute*, 50(2), 1906, p.1235

⁹⁶ Rimington, “Spirit of Cavalry Under Napoleon” in *JRUSI*, 50(2), 1906, p.1235; Battine, “The Use of the Horse Soldier” in *JRUSI*, 52(1), 1908, pp.314-315; *Cavalry Training 1907*, p.186

⁹⁷ See TNA WO 163/16 – IGF Report for 1910, p.224; TNA WO 163/18 – IGF Report for 1912, p.576

⁹⁸ *Cavalry Training 1912*, p.268-270. In particular, see the diagram illustrating an ideal combined action on p.270.

⁹⁹ Badsey, *Doctrine and Reform*, p.230; TNA WO 163/15 – IGF Report for 1909, p.293

However, the hybrid concept did not draw universal admiration and was savaged in the notorious 1910 work *War and the Arme Blanche* by Erskine Childers. Childers was a civilian who had served as a volunteer artilleryman in the Boer War, but his criticisms were given considerable weight by the fact Lord Roberts provided a supportive preface. Childers argued that shock action “had been consigned to complete oblivion in South Africa”, while Roberts supported the idea, suggesting the Klip Drift operation was not a genuine cavalry charge, but instead “a rapid advance of fighting men.”¹⁰⁰ The work called for the abolition of cold steel weapons, feeling a true hybrid soldier skilled in both rifle and sword was an unattainable goal, and instead suggested that purely rifle armed cavalry would be far more effective.¹⁰¹ Childers has drawn praise from Brian Bond who felt his argument possessed “devastating logic.”¹⁰² However, several of his tactical suggestions were of doubtful value. For example, Childers still believed cavalry could charge, albeit using the rifle instead of the sword or lance. His work argued that rather than charging into contact with the enemy, the cavalry could rush forward and then dismount at close range, overwhelming the foe with firepower.¹⁰³ While this had worked for the Boers in South Africa, particularly against low quality troops such as the 2nd contingent of Yeomanry, there were serious doubts about its value in a European conflict against regular soldiers. British officers were quick to point out that closing with the enemy and then trying to dismount invited a crushing counter charge from opposing cavalry using cold steel, as well as risking heavy casualties from enemy fire.¹⁰⁴ While Childers stirred controversy with *War and the Arme Blanche* and a follow up volume entitled *German Influence Upon British Cavalry*, in reality his more moderate tactical views were not as divergent from the cavalry’s own as first appeared. An article from the General Staff in response to the book argued that in many aspects, “...the difference in opinion between Mr. Childers and our Training Manuals is by no means so great as he seems to think it is” and noted that both *War and the Arme Blanche* and British official works placed emphasis on mobility, firepower and aggression as the keys to cavalry success.¹⁰⁵ In some ways, existing tactical thinking was more advanced. The General Staff criticised Childers for placing too much faith in the sheer speed of the horseman to cross fireswept zones unharmed, arguing that for a successful charge it was instead imperative that the cavalry had either the advantage of surprise, superior numbers or local fire superiority.¹⁰⁶

¹⁰⁰ Childers, Erskine *War and the Arme Blanche*, (Uckfield, Naval and Military Press, No date: Reprint from 1910 original), p.4, x

¹⁰¹ *Ibid*, p.243,

¹⁰² Quoted in Brian Bond, “Doctrine and Training in the British Cavalry, 1870 – 1914” in Howard, Michael (ed.), *The Theory and Practice of War*, p.109

¹⁰³ Childers, *War and the Arme Blanche*, p.245

¹⁰⁴ “The War and the *Arme Blanche*: The General Staff’s Views on Mr. Childers’s Book”, in *Journal of the Royal United Services Institute*, 54(2), 1910, p.1061

¹⁰⁵ *Ibid*, p.1060

¹⁰⁶ *Ibid*, p.1062

Although Roberts and Childers continued to complain the cavalry had regressed to pre-Boer War standards, by the later years of the period much of the heat had left the debate as both New School and Old School became relatively reconciled in favour of the hybrid cavalry tactics discussed earlier. In 1908, firepower advocate Ian Hamilton expressed satisfaction that cavalry in Southern Command were demonstrating flexibility in both mounted and dismounted methods, and noted “There is reason, then, for hope that the heated controversies of the past few years as to the respective merits of shock and fire tactics are at last cooling down into the sensible conclusion that there may be room on the battlefield for either or for both.”¹⁰⁷ Cavalry officers expressed similar views on the usefulness of the hybrid model and the value of a compromise tactical solution. John French warned the debate on cavalry tactics risked producing extreme solutions, noting “One amateur Centaur would dash the sword and lance entirely out of the cavalryman’s hand. Another fanatic (‘Beau Sabreur’) would throw the horseman’s splendid fire-arm to the wind” and instead advocated a balanced approach.¹⁰⁸ Future commander of the B.E.F. cavalry division Edmund Allenby was blunter with regard to cavalry tactics, stating “We want to kill. When we are in enclosed country we must use the rifle; if we are in open country we ought to be able to use both the rifle and the sword.”¹⁰⁹ While there was continued emphasis on the value of shock action, it was moderated by the need to be highly proficient in dismounted work. M.F. Rimington argued that the cavalry ideal should always be shock charges, but tempered his arguments by noting that fire action would be employed nine times out of ten.¹¹⁰ Perhaps the neatest summary of the attitude towards cavalry tactics following the departure of Lord Roberts was offered in 1910, when one officer surmised “The *desire* to use the sabre or lance should be predominant, but it must be held in restraint by a thorough knowledge of the power of the firearm.”¹¹¹

The successful adoption of hybrid tactics put the cavalry of the British Army considerably in advance of mounted forces on the continent. As the largest army of Europe, the German cavalry had been a model to follow for most of the pre-Boer War period, and strong interest in their tactics remained in the Edwardian era. However, British and German cavalry methods became increasingly divergent as the years passed by, and although the determination of the German cavalry to charge home was admired, they had little else to teach the horsemen of the future B.E.F. Drawing upon conscripts with a limited period of enlistment rather than long service volunteers meant that continental forces lacked the time to train their men effectively in both mounted and dismounted work, and therefore focussed on shock action to a greater extent than the British.¹¹² There was some anxiety, particularly in Germany, that modern warfare would require more dismounted work, but the limitations of training

¹⁰⁷ Hamilton, “Training of the Troops in 1907”, in *JRUSI*, 52(1), 1908, p.84

¹⁰⁸ Comment on Bethune, “Uses of Cavalry and Mounted Infantry”, in *JRUSI*, 50(1), 1906, p.633

¹⁰⁹ Comment on Captain C.W. Battine, “The Proposed Changes in Cavalry Tactics” in *Journal of the Royal United Services Institute*, 54(2), 1910, p.1444

¹¹⁰ Rimington, *Our Cavalry*, pp.22, 52. *Cavalry Training 1912* also emphasised this idea.

¹¹¹ Quoted in Holmes, *Riding the Retreat*, p.63

¹¹² Unknown Translator, “German Ideas on the Role and Employment of Cavalry” in *Journal of the Royal United Services Institute*, 48(2), 1904, pp.949-950

meant that little was done to make their cavalry more effective in this regard. Instead, the Germans preferred to add light infantry *Jaeger* battalions to their cavalry to provide fire power when necessary, although there were concerns that the *Jaegers* would not be able to keep up during fast moving actions.¹¹³ The cavalry of France was even weaker when it came to dismounted action, taking little interest in the subject and maintaining, in the words of one British officer, a “...robust and perhaps fanatical faith in the importance of shock tactics.”¹¹⁴ Attempts to reform the French mounted arm achieved little in the pre-war period, despite the best efforts of a few determined officers. In 1908, General de Negrier had lambasted the “dreaming” French cavalry in a searing article in *Revue des deux Mondes*, laying out a full translation of the controversial preface from *Cavalry Training 1904* as an example to follow.¹¹⁵ However, these efforts produced few significant results and the French cavalry remained backward compared to the British and even the German forces in terms of dismounted work. Both French and German cavalry continued to carry the carbine, weapons that were as poor in comparison with the British rifle as the carbine had been to the Mauser in South Africa.

The acid test of the stormy period of cavalry reform came in the opening months of 1914, when the vastly outnumbered B.E.F. cavalry division faced five cavalry divisions drawn from German I and II Corps.¹¹⁶ Although the British 2nd Brigade controversially blundered into a reckless and failed charge at Audregnies on 24th August 1914, the majority of clashes with German horsemen ended with distinct tactical successes. The action at Cerizy 28th August 1914 represented an almost ideal combination of fire and shock, with dismounted fire from rifles and machine guns forcing German cavalry to dismount, shelling from horse artillery causing their ‘led horses’ to stampede, and finally a cold steel charge by the 12th Lancers sweeping into the enemy and routing them.¹¹⁷ In the critical battles around Ypres in October 1914, the British cavalry dismounted and held a portion of the line against the attacks of an entire German Army Corps, a clear testament to the quality of their pre-war training in this regard.¹¹⁸ Conversely, German cavalry found their pre-war tactics were flawed on the Western Front. Unable to break through opposing cavalry, the cumulative effect of local defeats eroded the morale of the German horsemen, leaving them reluctant to engage and meaning they did not place any real pressure upon the British during the retreat from Mons.¹¹⁹ The weakness of German pre-war training was given expression in September 1914, when Eric von Falkenhayn announced that “The dismounted cavalryman should be able to fight exactly as an infantryman;

¹¹³ Lt. General von Pelet-Narbonne, “Primary Conditions for Success of Cavalry in the Next European War”, in *Journal of the Royal United Services Institute*, 50(1), 1906, p.333

¹¹⁴ Quoted in Badsey, *Doctrine and Reform*, p.215

¹¹⁵ Childers, *War and the Arme Blanche*, p.353

¹¹⁶ Badsey, *Doctrine and Reform*, p.243

¹¹⁷ Holmes, *Riding the Retreat*, pp.213-219

¹¹⁸ Beckett, I.F.W., *Ypres: The First Battle 1914*, (Harlow, Pearson/Longman, 2006) pp.100, 158-159

¹¹⁹ Badsey, *Doctrine and Reform*, p.243

cavalry charges no longer play any part in warfare.”¹²⁰ The cavalry of the B.E.F. held clear advantages in these critical opening battles before trench deadlock had stifled mobility, providing a testament to the effectiveness of their tactics and training.

The performance of the vastly outnumbered British cavalry in the opening months of the First World War demonstrated that the difficult and controversial period of reform in the aftermath of the Boer War had not been in vain. The need for skill when fighting on foot and the use of rifles rather than carbines in South Africa gave the British cavalry a head start in future tactics. By 1914 the British cavalry possessed an extremely high standard of marksmanship and an ability to fight dismounted that was considerably in advance of continental armies, with the German army only acknowledging the importance of such roles after a month of fighting in the First World War. Shock charges remained a feature of British tactics, giving the cavalry the aggression and confidence that was in danger of being lost in 1904, but these methods were seen as being one part of a hybrid system that emphasised flexibility dependent on situation and terrain. The contention of Edward Spiers that the British cavalry went to war in 1914 as dedicated to shock tactics as it had been in 1899 is incorrect. In fact, the cavalry learned from its experiences in South Africa, emerging as an effective hybrid force that was capable of fighting both mounted and dismounted when the tactical situation demanded it. Although the firepower versus steel debate produced strong opinions and controversial statements that sometimes bordered on the polemical, it resulted in tactical reform that ultimately produced a highly trained and tactically astute cavalry force that performed well in the critical opening battles of 1914.

Mounted Infantry

A curious adjunct to the firepower versus shock debate was the existence of the regular Mounted Infantry.¹²¹ Comprised of infantry temporarily mounted on horses, this arm showed some of the value of mobile troops who were able to fight dismounted. The British Army was unique amongst the major powers of Europe in maintaining Mounted Infantry as an adjunct to and sometimes replacement for the cavalry.¹²² The Mounted Infantry owed their origins to the demands of colonial warfare. Small British forces stationed in distant corners of the Empire often had need of mounted troops but lacked local cavalry support. In circumstances such as these, Mounted Infantry were a handy, albeit improvised, solution. Although they were not trained to carry out shock charges, the Mounted Infantry were valuable in colonial warfare in scouting and screening roles, while their ability to fight dismounted as infantry made them useful mobile fire support for small forces. Furthermore, Mounted Infantry could provide dismounted support for cavalry, making use of their infantry rifles that were superior to the cavalry carbines of the pre-Boer War era.

¹²⁰ Quoted in *Ibid*, p.243

¹²¹ During the period, Mounted Infantry were often referred to as “MI”.

¹²² Mounted Infantry was used by some of the smaller Balkan states, such as Montenegro.

On paper it seemed as if the war in South Africa was an ideal theatre for the Mounted Infantry to demonstrate their capabilities. The vast geography of theatre, the mobility of the Boers and the numerical weakness of British cavalry meant that there was a great need for mounted troops, with Mounted Infantry seeming to represent a perfect solution. In theory, these troops were a good match for the Boers, able to deploy rapidly and then dismount and take advantage of their infantry training and rifles to win the subsequent fire fight. With cavalry finding limited opportunities for shock action and dismounted fighting more common than expected, some felt that MI represented the tactics of the future. In 1900 Howard Vincent commented that while the days of charging cavalry seemed to be over, there was still a great need for "...mounted infantry, capable of quick movement on horse easy to mount, and of foot work in the fire zone."¹²³ Lord Roberts was a particular advocate of using MI in South Africa. Upon assuming command, Roberts ordered every British infantry battalion in or arriving in South Africa to muster one company of Mounted Infantry each in order to create eight new battalions consisting purely of MI.¹²⁴

Unfortunately, this unprecedented expansion starkly revealed the improvised nature of Mounted Infantry. The troops detached to join the MI received rudimentary training in riding, often lasting 3 weeks or less, and were then rushed to the front.¹²⁵ Poorly trained in mounted work and almost entirely ignorant of horsemanship and care for the animals, the early results were farcical. Artilleryman and author of the treatise *Small Wars*, Charles Callwell, remembered seeing MI in action during a small scale engagement in Cape Colony. After a burst of firing, Callwell witnessed a crowd of riderless horses and men on foot running towards his guns, and assumed that they had been driven back by a Boer attack with heavy casualties. Upon stopping one of the soldiers, the man related the cause of the apparent rout:

Them Boers they gets comin' nearer tho' we was shooting grand, and the Captain says 'Mount boys' and some as gets up they falls off, and some falls off as they gets up, and my d___ horse shoves up 'is d___ head...¹²⁶

Callwell went on to write of Mounted Infantry, "They do not fall off in the drill book, or if they do it does not say so."¹²⁷ The tactical handling of MI was made difficult due to such poor horsemanship. For example, the day after the Klip Drift charge, an advancing column of Mounted Infantry inexplicably came to a halt in the open within rifle range of the Boers, giving the burghers time to bring up artillery and a pom-pom gun. The fire of these heavier pieces caused a large number of British horses to bolt, carrying the helpless riders with them, many of the animals falling off a steep

¹²³ Vincent, "Observations of the War" in *JRUSI*, 44(1), 1900, p.634

¹²⁴ Maurice, *Official History*, Vol.1, pp.414-15

¹²⁵ Robertson, William, *From Private to Field Marshall*, (London, Constable, 1921), p.105

¹²⁶ Brevet Lieutenant Colonel C.E. Callwell, "Looking Back", in *Minutes of the Proceedings of the Royal Artillery Institute*, XXX, 1903-1904, p.261

¹²⁷ *Ibid*, p.261

bank and ending up in the Modder River.¹²⁸ As well as being vulnerable in battle, lack of experience and training made the early MI appalling horsemasters. The attrition of horses in some MI formations was truly staggering. The 1st Mounted Infantry was completely re-horsed almost four times over the course of just 14 months, yet of its total animal losses of 1,031, just 50 were killed in action, while 10 were killed by lightning.¹²⁹ Brief training had done little to teach the men the details of horse care. M.F. Rimington recalled being asked by one of his troopers whether he should feed his horse beef or mutton, while William Robertson ruminated that “No more unfortunate animal ever lived than the horse of the mounted infantryman during the early period of the march from the Modder to Pretoria.”¹³⁰

Nevertheless, despite their poor start, Mounted Infantry remained an important component of British forces in South Africa, especially in the guerrilla stage of the war when mobility was crucial. Experience in the field gradually improved the MI from its dismal early condition, and by the latter stages of the war both horsemastery and tactics had improved.¹³¹ For example, in March 1902 an advance guard of MI pursuing a force under De La Rey marched 30 miles to reach the area and then pursued the Boers “at speed” for around 8 miles, a considerable improvement from the early actions of 1900.¹³² The improved quality of the Mounted Infantry won the branch praise at the end of the war, with MI commander Edward Hutton feeling “...the successful issue of the South African War was very largely due to the principles of mounted infantry being thoroughly recognised and carried into effect.”¹³³

A number of officers saw a key role for Mounted Infantry in the post-war British Army. A relatively common assumption existed in the years immediately following the Boer War that future conflicts would be dominated by mobility, suggesting the need for greater numbers of mounted troops.¹³⁴ For example, in a prize winning essay published in 1901, Major E.G. Nicolls argued “It does not then seem unreasonable to assume that war operations in the future will consist of a series of running fights, or minor actions, carried on by the mounted mobile troops on each side, and will culminate in one side being driven into a position where they must either fight a decisive action or surrender.”¹³⁵ Financial stringency meant that it was unlikely there would be enough cavalry to meet the potential demands of such a conflict, and instead it was suggested by a number of officers that Mounted Infantry could provide a substitute on more mundane duties such as screening and scouting, allowing

¹²⁸ Johnstone, H.M, *A History of Tactics*, (Uckfield, Naval and Military Press, 2004 reprint), p.195

¹²⁹ Angelsey, *History of the British Cavalry*, Vol.4, p.323

¹³⁰ *Elgin Commission*, Vol.2, Q12729, p.31; Robertson, *Private to Field Marshal*, p.105

¹³¹ *Elgin Commission*, Vol.2, Q19299, p.399

¹³² Angelsey, *History of the British Cavalry*, Vol.4, p.271

¹³³ Comment on Bethune, “Uses of Cavalry and Mounted Infantry”, in *JRUSI*, 50(1), 1906, p.629

¹³⁴ Amery, *Times History*, Vol.2, p.96

¹³⁵ Major E.G. Nicolls, “The Training, Organisation and Equipment of Companies of the Royal Garrison Artillery with Medium Guns, And Howitzers, And Their Tactics in Future Field Operations” in *Minutes of the Proceedings of the Royal Artillery Institution XXVIII 1901-1902*, p.100

cavalry to remain fresh for decisive battlefield action.¹³⁶ Developing on this idea, some officers felt the Mounted Infantry could provide dismounted fire support for the cavalry, allowing the cavalry to remain mounted and deliver shock charges when the opportunity arose.¹³⁷ A few supporters of MI went even further, most notably Erskine Childers, who felt that cavalry should become purely mounted riflemen inspired by the success of the Boers in South Africa, but such views were on the fringes of the debate.¹³⁸ Although the debate about its precise usage continued, in the immediate aftermath of the Boer War the Mounted Infantry branch appeared to have a promising future ahead of it. In 1903, the Elgin Commission recommended the provision of “a considerable force of mounted riflemen” in addition to regular cavalry.¹³⁹ An inspection of Mounted Infantry at Aldershot in 1905 drew praise, with John French considering their performance “far beyond his expectations” and feeling “The importance of the part they have to play cannot be impressed too strongly upon MI officers of all ranks.”¹⁴⁰ Indeed, Edward Spiers has suggested that Mounted Infantry held the potential to be a genuine alternative to cavalry in this period, and has been critical of the failure to take full advantage of the arm.¹⁴¹

However, the Mounted Infantry was far from universally popular within the British Army. Its risible performance in the early part of the Boer War had left many observers with a decidedly negative view of the arm. Opinions presented to the Elgin Commission were often highly critical of the MI. Michael Rimington felt that one cavalryman was worth three mounted infantrymen, while Lord Methuen lambasted the arm for being poor at reconnaissance and possessing horsemastery that was “beneath contempt.”¹⁴² Douglas Haig acknowledged that the MI had improved over time, but still felt that “...few ever became good enough riders to be fit for scouting work.”¹⁴³ Furthermore, it had been noted that on several occasions during Boer War, Mounted Infantry had improvised a mounted weapon, usually by fixing a bayonet on the end of the rifle to create a makeshift lance, and then launched charges against Boers.¹⁴⁴ Rimington thought this was a “splendid thing”, but other officers were concerned at the possibility that such examples would encourage Mounted Infantry to shed its infantry characteristics and become bad cavalry instead.¹⁴⁵ There were also serious doubts about the capacity of Mounted Infantry to survive a battle against trained European horsemen. The Boers had

¹³⁶ Morrison, “Lessons to be derived”, in *JRUSI*, 45(2), 1901, p.816; Battine, “Proposed Changes in Cavalry Tactics”, in *JRUSI*, 54(2), 1910, p.1431

¹³⁷ Bethune, “Uses of Cavalry and Mounted Infantry”, in *JRUSI*, 50(1), 1906, p.623; Colonel A.J. Godley, “Mounted Infantry”, in *Cavalry Journal*, IV, 1909, pp.143-144

¹³⁸ Childers, *War and the Arme Blanche*, pp.4 - 7

¹³⁹ *Elgin Commission Report*, p.49. Although not specifically stated, these “mounted riflemen” included Yeomany and volunteer formations from the Dominions and colonies, as well as Mounted Infantry. See Badsey, *Doctrine and Reform*, p.170

¹⁴⁰ TNA WO 27/502 - Mounted Infantry Inspection, 30th June 1905.

¹⁴¹ Spiers, “The British Cavalry” in *JSAHR*, LVII(230), p.78

¹⁴² *Elgin Commission*, Vol.2, Q12729, p.31; Q16595, p.264

¹⁴³ *Ibid*, Vol.2, Q19299, p.402

¹⁴⁴ *Ibid*, Vol.2, Q12485, p.21; Q12703, pp.29-30

¹⁴⁵ *Elgin Commission Report*, p.52

been able to cause considerable panic and disorder amongst the MI with rifle and artillery fire, and there was a fear that if European cavalry was able to charge Mounted Infantry with cold steel, the result would be a complete slaughter.¹⁴⁶ Given that many pro-MI officers saw their ideal role as screening and scouting in place of cavalry, duties that would likely bring them into contact with enemy horsemen, this was a grave weakness. These flaws made determining a doctrine for the future employment of the MI difficult. Although they were still useful as an improvised force in colonial actions, doubts remained over their role and viability in a European conflict.¹⁴⁷

While these were valid criticisms, perhaps the greatest problem facing the Mounted Infantry was structural rather than tactical. The key problem was that MI had no permanent organisation. Instead, infantry were detached from their own formations, given a brief course in riding and MI duties, and then returned to their parent battalions ready to be improvised as and when required. The perils of using such a system on a large scale had been starkly revealed in the early stages of the Boer War where the ad hoc MI had performed very poorly, and following the end of the conflict suggestions were made to establish the arm on a permanent basis.¹⁴⁸ However, this policy was rejected on grounds of cost and also because of the opposition of MI officers, who preferred to return to their original infantry formations rather than become a new and separate branch.¹⁴⁹ Edward Spiers has been critical of this attitude, accusing MI officers of “meek subservience” to the cavalry rather than pressing for independence, but as Stephen Badsey has argued, it seems more likely that these men simply wished to return to the familiar institutions of their home battalions.¹⁵⁰ The result was that the organisation of the MI remained largely unchanged from the pre-Boer War structure. Infantry was taken from a parent battalion, trained for two months, and then returned to its original formation, leaving a system satisfied no-one. The infantry battalion lost a company of men and officers, limiting its own training, while the MI themselves received brief and inadequate instruction.¹⁵¹ Relative lack of interest from Mounted Infantry officers meant that the arm had no true patrons to argue its case for reform on more permanent lines, and so the inadequate organisation continued unchecked.

A combination of unresolved tactical flaws and structural weaknesses led to the decline of the Mounted Infantry over the course of the Edwardian period. As the cavalry improved its dismounted skills and took firepower more seriously, the need for Mounted Infantry to carry out these duties declined, reducing their principal role. Under the Haldane reforms, the MI was instead given the duty of screening and reconnaissance for the B.E.F. infantry divisions, but doubts about the ability of these loosely trained formations to face European cavalry remained. The ad hoc nature of the arm and the

¹⁴⁶ Rimington, “Spirit of Cavalry Under Napoleon” in *JRUSI*, 50(2), 1906, p.1222; Comment on Battine, “The Use of the Horse Soldier” in *JRUSI*, 52(1), 1908, p.320

¹⁴⁷ TNA WO 163/11 – IGF Report for 1905, p.204

¹⁴⁸ *Elgin Commission Report*, p.52

¹⁴⁹ TNA WO 163/10 – Precis 160, pp.78-80

¹⁵⁰ Spiers, “The British Cavalry” in *JSAHR*, LVII(230), p.78; Badsey, *Doctrine and Reform*, p.217

¹⁵¹ TNA WO 27/510 – Report on Troops and Defences in South Africa, January and February 1907.

lack of interest from MI officers who saw their posting as temporary meant that addressing these tactical weaknesses proved nearly impossible. While the arm still had potential value in colonial actions, the emergence of Germany as the principal threat to Britain meant that maintaining the force became harder to justify, especially as Mounted Infantry cost almost as much as regular cavalry but was considered tactically inferior. In 1912, the return of cavalry regiments from overseas postings saw the final end of the MI, with the formation being disbanded and regular cavalry being substituted as divisional troops for the B.E.F. infantry.¹⁵² Edward Spiers has been critical of the failure to develop the Mounted Infantry into a successor to regular cavalry, but given the unresolved structural and tactical weaknesses that existed in the arm, it seems unlikely the idea was ever taken seriously within the British Army. Instead, successful cavalry reform based on both firepower and shock action sounded the effective death knell for the Mounted Infantry. While the MI was barely changed from its pre-Boer War roots, the cavalry underwent considerable reform and emerged as a genuine and highly effective hybrid force. The MI had been a useful source of fire support to the cavalry in the days of the carbine, but by the eve of the First World War this role was far less important and it was difficult to justify their expense. Inadequately organised for European conflict, hampered by the tactical weaknesses that had been exposed in South Africa and equalled in dismounted work by the cavalry it was intended to support, there was little reason to maintain the Mounted Infantry beyond this point, a fact recognised even by supporters of the arm.¹⁵³

Reconnaissance and Horsemastery

Although the arguments over the relative merits of firepower as opposed to the *arme blanche* dominated much of the cavalry reform debate, the Boer War had also demonstrated the difficulty and the critical importance of effective reconnaissance on a modern battlefield. Smokeless powder and well concealed trenches made the job of reconnaissance harder than ever before and placed great demands upon the cavalry, who were already struggling with the challenge of developing new combat methods, and suffering from serious horse attrition. Inadequate maps and the relative invisibility of Boer positions made the job even harder, but the consequences of insufficient reconnaissance were disastrous. On several occasions during the war, British forces failed to discover Boer positions until it was too late, stumbling into previously concealed fire zones and suffering heavy casualties as a result. Faulty reconnaissance played a critical role in the triple defeats of 'Black Week', particularly at Magersfontein and Colenso, where the true locations of the Boer trenches were only revealed when the burghers opened fire and took the British by surprise. Redvers Buller ruminated over the issue in

¹⁵² Badsey, *Doctrine and Reform*, p.217

¹⁵³ 'Ikona', "The Passing of the Old M.I.", in *Cavalry Journal*, 9, 1914, pp.210-211

1900, noting “I suppose our officers will someday *learn the value of scouting*, but at present our men always seem to blunder into the very midst of the enemy.”¹⁵⁴

In addition to the difficult conditions imposed by smokeless weapons and the absence of useful maps, effective reconnaissance was hampered by the lack of training and interest that had been taken in the duty by the pre-war British cavalry. Although it was regarded as a critically important role, there was a dangerous assumption that reconnaissance would not be possible until the enemy cavalry had been destroyed, causing practical training in scouting against active opposition to become neglected.¹⁵⁵ John French complained in 1895 that just 3 or 4 days a year were dedicated to reconnaissance work as compared to 27 days in the French army, while an anonymous cavalryman bemoaned in 1899 that “...the art of patrolling is almost unknown in our cavalry.”¹⁵⁶ Reconnaissance was not taken seriously at peace time manoeuvres, where the confined areas made true scouting difficult to practice and it was not uncommon “...to see cavalry scouts approach openly to within 500 yards of infantry firing at them, and often closer.”¹⁵⁷ Training during the pre-war years instead focussed on formation cohesion and riding ability, failing to nurture the level of individual initiative that was needed in hazardous reconnaissance missions in unfamiliar country.¹⁵⁸

An additional restriction upon scouting duties was the weak condition of cavalry horses throughout the campaign. Horses initially sent out to South Africa were heavy and strong, but such mounts demanded a great amount of forage that proved impossible to supply, and were further limited by the fact that they travelled from a Northern hemisphere winter to a Southern hemisphere summer without being given time to fully acclimatize. Furthermore, the horse was expected to carry a large amount of weight, giving greater impact in the charge but proving a serious problem in the more mobile, long distance operations that were common in South Africa. Jay Stone has suggested that a fully loaded cavalry horse could be expected to carry as much as 400 pounds in weight, including the rider, his weapons and various other items of kit.¹⁵⁹ These factors posed serious health problems for the animals, and such difficulties were compounded by the poor horsemastery prevalent amongst the cavalry. Lack of training meant that although the British cavalry were considered good riders, they were not accustomed to long distance riding or extended operations in the field. Instead, rider and horse generally only spent a few hours per day together outside the stables, leading John French to

¹⁵⁴ Quoted in Vincent, “Lessons of the War”, in *JRUSI*, 44(1), 1900, p.633

¹⁵⁵ Colonel J.D.P. French, “Cavalry Manoeuvres” in *Journal of the Royal United Services Institute*, 39(1), 1895, p.565

¹⁵⁶ Ibid, pp.565-66 ; ‘A Cavalry Officer’, “British Cavalry”, in *Journal of the Royal United Services Institute*, 43(1), 1899, p.453

¹⁵⁷ Lieutenant Colonel R.H. Morrison, “Lessons to be derived from the Expedition to South Africa in Regard to the best organization of the land forces of the Empire”, in *Journal of the Royal United Services Institute*, 45(2), 1901, p.816

¹⁵⁸ *Elgin Commission*, Vol.2, Q14242, p.109; Q15695, p.226

¹⁵⁹ Stone, J. and Schimdl, E., *The Boer War and Military Reforms*, (Lanham, University Press of America, 1988), p.93

admit after the war that; “They [the cavalry] understood stable management better than the care of horses in the field”, while Leo Amery was more scathing when he complained that the average British cavalryman was “...hardly more conscious of their horse than of their boots.”¹⁶⁰ This lack of experience in horsemastery meant that a number of bad habits were prevalent amongst the mounted forces, such as failing to allow a horse to graze when the opportunity arose, and remaining mounted even when at a halt.¹⁶¹ This latter error tired the horse needlessly and risked causing a sore back, making it impossible for the animal to wear a saddle and thus effectively rendering it a casualty. Michael Rimington, generally considered the best horsemaster in the British Army, felt that remaining mounted unnecessarily was perhaps the greatest cause of horse losses in the entire war.¹⁶² The issue was addressed in the ‘Notes for Guidance’ issued by Lord Roberts on assuming command in January 1900, urging that men should dismount whenever possible and even lead their horses on foot when the opportunity arose.¹⁶³ Strenuous efforts were also made to reduce the weight carried by the animal, with official memos urging the removal of unnecessary kit whenever possible.¹⁶⁴

Not all the problems with the health of the horses were the result of individual negligence. The length of supply lines and their vulnerability to Boer raids meant that providing the vast quantity of forage required for the horses was a tremendous difficulty. Initially, horse rations were 12 pounds of oats a day, which would be reduced if hay or grazing was available.¹⁶⁵ By the time Lord Roberts took command in January 1900, the figure had dropped to 10 pounds of oats a day, but in the midst of active operations even this figure often proved impossible to provide. For example, during the advance to relieve Kimberley, the horses of the cavalry division went without feed for two days from 17th February to the 19th, and then received just six pounds of oats per horse for the next four days.¹⁶⁶ Called upon to undertake strenuous work on such short rations, the horses suffered terrible casualties, rendering the division virtually immobile for want of animals by April 1900.¹⁶⁷ The British made great efforts to bring replacement animals to South Africa, but the quality of these horses varied enormously. In April 1900, Douglas Haig was frustrated to find that “only wretched beasts of Argentine ponies are arriving and very few of them.”¹⁶⁸ Even when fresh animals were available, they were given little time to acclimatize and the difficult conditions often rendered them casualties within a matter of days. Michael Rimington described the process of bringing new animals to the front;

¹⁶⁰ *Elgin Commission*, Vol.2, Q17129, p.301; Amery, *Times History*, Vol.2, p.75

¹⁶¹ *Elgin Commission*, Vol.2, Q12652, p.27

¹⁶² *Ibid*, Q12652, Q12653, p.27

¹⁶³ TNA WO 105/40 – Notes for Guidance in South African Warfare, 26th January 1900

¹⁶⁴ TNA WO 105/40 – Circular Memo No.8, 5th February 1900

¹⁶⁵ Smith, Frederick, *A Veterinary History of the War in South Africa*, (London, H.W. Brown, 1919), pp.14-15

¹⁶⁶ Badsey, *Doctrine and Reform*, p.105

¹⁶⁷ *Ibid*, pp.113-114

¹⁶⁸ Douglas, *Douglas Haig: The Preparatory Prologue*, p.167

..thirty days' voyage, followed by a five or six days' railway journey, then semi-starvation at the end of a line of communication, then some quick work followed by two or three days' total starvation, then more work, and so on.¹⁶⁹

As the British gained greater control over South Africa the supply situation became more stable and the horses received more regular rations, and additionally officers and men learned how to make better use of whatever forage was at hand.¹⁷⁰ However, the limitations of supply during campaign exacerbated the difficulties of keeping horses fit and healthy in the unfamiliar climate of the veldt, and the rate of horse attrition remained shockingly high throughout the conflict.

The poor condition of mounts in South Africa seriously limited cavalry tactics. Most obviously, weak horses were unable to gain sufficient speed to carry out a shock charge, but the state of the mounts also had a negative influence upon the ability to reconnoitre effectively. Initially, reconnaissance was carried out by detached patrols under the command of officers or N.C.Os, who would range ahead of the rest of the squadron.¹⁷¹ However, the feeble condition of horses meant that these patrols were at risk of being cut off or overtaken by the Boers, lacking the speed to escape the fast moving commandos.¹⁷² This caused the scouts to lose confidence and encouraged timid movement, with the patrols rarely advancing more than a quarter of a mile from the supporting squadron.¹⁷³ Gradually, the patrol system was phased out in many regiments in favour of forming a long line of scouts from an entire squadron, spacing them out over several hundred yards and performing a sweep of the countryside.¹⁷⁴ Although this allowed the scouts to push further forward and ensured the Boers could not ambush individuals, it was not an efficient system for gathering information, being highly conspicuous and encouraging the men "...to trust to their neighbour instead of using their own eyes."¹⁷⁵ While the system was flawed, practice and experience meant that cavalry reconnaissance was beginning to show signs of improvement by the later stages of the war, with scouts ranging further and being able to report back more useful information.¹⁷⁶ Nevertheless, at the end of the conflict there was an almost universal call for improvements to be made in reconnaissance training and the related subject of horsemastery under campaign conditions.¹⁷⁷

Fortunately for the reformers, the issue of reconnaissance training was not caught up in the furious debate between the 'New School' and 'Old School', allowing quiet improvements in training and

¹⁶⁹ Rimington, *Our Cavalry*, p.82

¹⁷⁰ *Elgin Commission*, Vol.2, Q17129, p.301

¹⁷¹ Vaughan, "Cavalry Notes", in *JRUSI* 45(1), 1901, p.449

¹⁷² *Ibid*, p.449

¹⁷³ Stone and Schimdl, *Boer War and Military Reforms*, p.94

¹⁷⁴ Vaughan, "Cavalry Notes", in *JRUSI* 45(1), 1901, p.449

¹⁷⁵ *Ibid*, p.450

¹⁷⁶ *Ibid*, p.448, Stone and Schimdl, *Boer War and Military Reforms*, p.94,

¹⁷⁷ For example, *Elgin Commission*, Vol.1, Q173, p.7; Q4161, p.176; Q6969, p.298; Vol.2, Q13941, p.109; Q17129, p.301

organisation to develop. The new emphasis on scouting also marked something of a doctrinal change for the horsemen. In the aftermath of the Boer War, several writers had complained that cavalry had been ‘reduced’ to scouting and that this marked a perversion of the true combat role of the mounted arm.¹⁷⁸ However, by the later years of the Edwardian period it was seen as a crucial duty and the cavalry were criticised in strong terms if they were not up to the required standard. Inspired by the urging of Inspector General of Cavalry Robert Baden-Powell, picked men were taken from the squadrons to become trained scouts. Reform aimed at training at least 4 scouts per squadron, with a further 12 scouts at regimental level underneath a specially trained officer.¹⁷⁹ This was the first time the cavalry had possessed an organisation at regimental level for the purposes of reconnaissance, and although it took time to develop its full potential, it marked a distinct advance from the haphazard organisation that had existed in the pre-Boer War army.¹⁸⁰ Supplementing the scouts was the institution of a group system, with a section of 8 men under the command of an NCO becoming a permanent unit and encouraging “intelligence and initiative” when on detached and reconnaissance duties.¹⁸¹ Although these changes represented substantial improvements, there were calls for even more to be done. Initially, scoutmasters were noted to be highly enthusiastic but often lacking in practical knowledge, with one anonymous cavalryman complaining that they mainly consisted of 2nd Lieutenants who knew “little or nothing.”¹⁸² Addressing the problem, minor tactics in the art of reconnaissance became part of the Cavalry School syllabus in 1906, while John French suggested assigning regimental scouts on a permanent basis rather than training them year by year, feeling “Scouts should be made much of and given every reasonable privilege.”¹⁸³ The process of reform was not without problems, and in 1910 Edmund Allenby commented severely upon casual errors in reconnaissance which “ought by now to be impossible.”¹⁸⁴ Nevertheless, reconnaissance training was beginning to bear fruit by the later years of the Edwardian period, with superior use of the ground and all round improvements noticeable.¹⁸⁵

Allied to the reform of reconnaissance was a new emphasis on improving horsemastery. Drawing from an ever more urbanized population, the cavalry could not count on prior knowledge of animal handling, making efficient and realistic training in horse handling important.¹⁸⁶ Long distance riding was introduced into the training syllabus, alongside specific manoeuvre schemes that aimed to recreate service conditions by putting scouts into the field for extended periods against active

¹⁷⁸ TNA WO 108/184 Notes By Colonel J.M. Grierson R.A on Return from South Africa; Johnstone, *History of Tactics*, p.191

¹⁷⁹ TNA WO 163/10 IGF Report for 1904, p.301

¹⁸⁰ Ibid, p.301

¹⁸¹ Ibid, pp.301-302

¹⁸² ‘Another Cavalryman’, “The Squadron System”, in *United Service Magazine*, November 1904, p.171

¹⁸³ TNA WO 163/13 IGF Report for 1908, p.15

¹⁸⁴ TNA WO 163/16 IGF Report for 1910 - Comments on Staff Tour, pp.264-265

¹⁸⁵ TNA WO 163/20 IGF Report for 1913, pp.330, 338

¹⁸⁶ Rimington, *Our Cavalry*, p.18. Rimington estimated that only 15% of cavalry recruits had any prior experience with horses.

opposition. These exercises were progressive, initially aiming to train individual scouts, but later progressing to include the movement of friendly troops that were dependent on the reports received from the scouting forces.¹⁸⁷ The exercises were not without fault. It was noted cavalry map reading was poor, with the soldiers often having to ask for directions, while in one case the ‘enemy’ that was the target of the reconnaissance was carrying out a pre-planned ceremonial march with bands playing.¹⁸⁸ However, these schemes marked a distinct improvement in training for combat compared to pre-war work. Whereas prior to the Boer War one cavalryman noted that the average cavalry horse spent 20 hours out of 24 in the stables, the new exercises lasted several days without interruption, forcing officers and men to handle supplies and horse care in a more realistic fashion.¹⁸⁹ Experience of horse care in the Boer War encouraged other simple reforms, such as dismounting and leading the animals whenever possible and removing excess weight on improved saddles.¹⁹⁰

The British cavalry made steady and important improvements in reconnaissance and horsemastery throughout the Edwardian period, although it was often overshadowed by the prominent and acrimonious fire versus sword debate. For example, Lord Roberts was still expressing concern in August 1914 that cavalrymen never chose to dismount unless ordered to do so, even though walking with the horses had been standard practice for several years.¹⁹¹ In fact, by 1914 the British cavalry had emerged as perhaps the best horsemasters in Europe. The value of the experience gained in South Africa was most clearly revealed in comparison with European cavalries of the era. In the Russo-Japanese War, the Russian cavalry proved so abysmal in scouting duties in the early part of the war that even accurate reports were ignored by the time of the Battle of Mukden in February 1905, and reliance was instead placed on local spies.¹⁹² In 1914 the superiority of British horsemastery over that in the French and German armies was considerable, with B.E.F. horses remaining fit even in the midst of active campaigning.¹⁹³ Conversely, German horses were overburdened and worked to the point of exhaustion, while the bad habit of staying mounted while marching on hard roads caused huge numbers of horses to become lame.¹⁹⁴ A British liaison officer found the French cavalry in an equally poor state, with many horses suffering from sore backs caused by the men remaining mounted at all times, noting that as a result the smell of some squadrons was “painful”.¹⁹⁵ Furthermore, when the anticipated initial clash of massed cavalry divisions failed to occur, the ability of the British

¹⁸⁷ TNA WO 27/503 Cavalry Training: The Ulster and Wicklow Schemes.

¹⁸⁸ Ibid, Comments on the Ulster Scheme.

¹⁸⁹ Webber, “Army Reform” in *JRUSI*, 45(1), 1901, p.388; TNA WO 27/503 Comments on the Wicklow Scheme.

¹⁹⁰ Angelsey, *History of the British Cavalry*, Vol.4, pp.448-449; Holmes, *Riding the Retreat*, p.65

¹⁹¹ Badsey, *Doctrine and Reform*, p.239

¹⁹² Captain Ashley Barret, “Lessons to be Learned by Regimental Officers from the Russo-Japanese War”, in *Journal of the Royal United Services Institution*, 51(1), 1907, p.801; TNA WO 33/350 Reports from Manchuria, pp.40-41

¹⁹³ Badsey, *Doctrine and Reform*, p.246

¹⁹⁴ Cave, Nigel & Sheldon, Jack, *Le Cateau*, (Barnsley, Pen & Sword Military, 2008), p.14

¹⁹⁵ Spears, Edward, *Liaison 1914: A Narrative of the Great Retreat* (London, Eyre and Spottiswoode, 1968), p.101

cavalry to fight dismounted gave them an edge in action against enemy screening forces. It had long been expected that the final stages of the reconnaissance would be carried out dismounted, and the British cavalry were well prepared for this role.¹⁹⁶ Conversely, the German cavalry placed considerable reliance on their *Jaeger* infantry for fire support, causing critical delays while stalled horsemen waited for the infantry to catch up.¹⁹⁷ In combination with rapidly rising horse attrition, this limited the potential of the German cavalry in a reconnaissance role to the point where it has been suggested that it caused Alexander von Kluck, commander of German 1st Army, to operate in a “partial intelligence vacuum” in the opening months of the war.¹⁹⁸ Conversely, British cavalry reconnaissance had helped identify the looming threat of the powerful German advance prior to the Battle of Mons, albeit only to have it rejected by GHQ.¹⁹⁹ The cavalry also helped screen the retreat of the B.E.F. after the battles of Mons and Le Cateau, keeping German cavalry at bay and ensuring a potentially hazardous withdrawal proceeded with surprising smoothness. Following the Battle of the Marne, British cavalry was able to maintain contact with retreating German forces before the ‘Race to the Sea’ brought mobile operations on the Western Front to a virtual halt.

The reform of reconnaissance and horse mastery in the 1902 – 1914 period was a quiet success story for the British cavalry. Due to the short period of mobile warfare in 1914 the value of this development has sometimes been overlooked in favour of a focus upon the shock versus fire debate, but this is to neglect an important advance drawn from the painful experiences on the veldt. In the opening weeks of the First World War, German and French cavalry suffered from many of the same problems that had afflicted the British mounted arm in South Africa. Conversely, the British had learned from their experiences, maintaining healthy horses and thus retaining their mobility right up until trench deadlock set in during late 1914. Whereas prior to the Boer War such mundane duties as scouting and care of horses had received little attention, by the time of the First World War they were an integral and valuable part of training, giving the British cavalry a critical edge in the mobile operations of August and September 1914.

Conclusions

The tactical debates and reforms that surrounded the mounted arm in the pre-First World War British Army, and the extent to which they changed the nature of the cavalry have long been a contentious and difficult subject. Looking back and surveying the trench deadlock of the Western Front, it is easy to be overly critical of what Gervase Phillips has termed the “scapegoat arm”.²⁰⁰ Furthermore, the role of cavalrymen John French and Douglas Haig as commanders of the B.E.F. has drawn much

¹⁹⁶ Major F.C. Ornsby-Johnson, “Reconnaissance as a Fine Art under the Present Conditions of War”, in *Journal of the Royal United Services Institution*, 46(2), 1902, p.1210

¹⁹⁷ Cave & Sheldon, *Le Cateau*, p.14

¹⁹⁸ *Ibid*, pp.14-15

¹⁹⁹ Badsey, *Doctrine and Reform*, p.244

²⁰⁰ Phillips, “Scapegoat Arm” in *JMH* 71(1), 2007, p.38.

comment and criticism, with some historians using the fact they were cavalry officers to criticise the entire ethos of the arm itself.²⁰¹ With the benefit of hindsight it is tempting to argue that any reform of the cavalry was essentially irrelevant in the face of modern weapons, but as recent scholarship has pointed out, cavalry did not become extinct in the First World War, achieving a number of notable successes, particularly in the Middle East.²⁰²

The reform of the cavalry was a difficult process in which fierce passions were aroused, and polemical positions were sometimes taken, both by ‘New School’ and ‘Old School’. However, the two sides of the debate were ultimately reconciled with the creation of an effective blend of both mounted action and dismounted firepower, leading to the creation of a hybrid cavalryman capable of performing multiple roles. By the time of *Cavalry Training 1912*, the focus lay on tactical flexibility, using firepower, movement and shock action in concert to overwhelm the enemy.²⁰³ Emphasis remained on delivering the charge as the ultimate aim of any attack, but officers were almost unanimous in the view that dismounted action would compromise the vast majority of the cavalry’s work. Furthermore, as Gervase Phillips has argued, there is a dangerous perception amongst military historians that a cavalry charge must inevitably be a tactically crude and anachronistic manoeuvre.²⁰⁴ However, as demonstrated by *Cavalry Training 1912*, the British cavalry had a flexible and well considered approach to delivering shock action, emphasising surprise and fire support as pre-requisites for anything other than small scale actions.²⁰⁵

The vociferous and often public debate between ‘New School’ and ‘Old School’ sometimes disguised the quiet work of reform that was progressing amongst the cavalry, in terms of training, tactics and equipment. Drawing upon the hard lessons learned in South Africa, the cavalry undertook less glamorous reforms that have sometimes been ignored in favour of the prominent firepower versus shock debate. The complete overhaul of reconnaissance and horsemastery training took time to bear fruit, but ultimately proved its worth in the opening months of the First World War. The German and French horses suffered terrible attrition within a matter of weeks, often caused by simple and needless errors such as remaining mounted at all times, but the British cavalry had learned from their Boer War experience and were able to keep their animals fed and healthy for far longer. Superior skills in dismounted action and improved training in reconnaissance also gave the British the edge over the German horsemen, who were forced to rely on *Jaeger* formations for fire support. While not every action ended in automatic victory, the string of small scale clashes between the British cavalry and numerical superior German mounted arm clearly demonstrated the tactical superiority of the B.E.F. horsemen. Armed with the superb Lee-Enfield rifle and highly trained in marksmanship, the British

²⁰¹ De Groot, “Educated Soldier or Cavalry Officer?” in *WS*, 4(2), pp.60-61

²⁰² Phillips, “The Obsolescence of the Arme Blanche” in *WS*, 9(1), 2002, pp.39-40

²⁰³ *Cavalry Training 1912*, pp.268-271

²⁰⁴ Phillips, “The Obsolescence of the Arme Blanche” in *WS*, 9(1), 2002, p.49

²⁰⁵ *Cavalry Training 1912*, pp.268-271

cavalry was indeed a “new element in tactics” as described by Douglas Haig, being far in advance of French, German and Russian rivals. While the ability of the cavalry to achieve success dismounted had been demonstrated in the Boer War in actions such as Koodoosrand, training in the pre-First World War period had built on these foundations and produced cavalry capable of improvising as infantry when necessary. For example, at the First Battle of Ypres, British cavalry was capable of holding portions of trench on the Messines Ridge against German attacks during a critical period of the battle. This tactical flexibility stood in stark contrast to the German cavalry, which found itself being lambasted for its over reliance on mounted charges.

The British cavalry was still capable of tactical errors, as was demonstrated by the failed charge of 2nd Brigade at Audregnies, but for the most part the arm demonstrated its skill and flexibility in the opening months of 1914. Improvements in training, equipment and tactics in the wake of the Boer War helped to create an elite force of mounted troops that were able to perform well despite being vastly outnumbered in the opening months of the conflict. Although the cavalry found itself short of opportunities once the trench deadlock began, during the mobile months of the war it demonstrated considerable tactical skill that confounded its German opponents.

Conclusions

The performance of the British Expeditionary during the desperate battles of 1914 has given the ‘Old Contemptibles’ lasting fame.¹ Outnumbered and in a dangerous strategic position, the army demonstrated skill and tenacity in delaying the German advance and retreating in good order. The early actions of 1914 stand in particular contrast to the opening of the Boer War in 1899, especially the triple defeats of ‘Black Week’, seeming to suggest that the British Army had developed a great deal in the intervening years. However, while historians have generally agreed that the B.E.F. was particularly well trained, the importance of the Boer War in developing tactics and training in the intervening years has sometimes been neglected. For example, in the most recent study of the B.E.F.’s performance in 1914, the importance of the South African experience in shaping tactical handling is only referred to in passing, and the force is criticised for remaining a “Victorian Army”.² Other historians have argued that the influence of the war was diffuse or even negative. Ian Beckett has suggested that the ambiguous nature of the conflict made extracting useful lessons difficult, meaning that the overall influence of the conflict was not great.³ The greatest critic of the Boer War’s influence has been G.R. Searle, who has argued that the struggle produced lessons that were to prove “...irrelevant, if not positively harmful” for the British Army during the First World War.⁴

However, as this thesis has demonstrated, the Boer War was the catalyst for a wide variety of tactical reforms that shaped the B.E.F. of 1914. Not all of the lessons that emerged from the struggle proved useful and some were neglected in the pre-First World War era, but the core training and tactics of the B.E.F. were rooted in the experience of combat on the veldt. Contrary to the opinion of G.R. Searle, the improved tactics that were apparent amongst all service arms in 1914 were directly influenced by the experience of South Africa, not only in terms of providing combat examples for future employment, but also in reforming attitudes toward training and the profession as a whole. Professionalism amongst the officer corps was encouraged, while the men were expected to demonstrate high levels of skill and initiative rather than the simple obedience of earlier times. While social prejudice and budgetary constraints sometimes prevented the reforms being carried further, the dramatic change to the training ethos remained a huge step forward for the British Army. Although not all the tactical lessons of the Boer War survived the process of reform, the overall impact of the

¹ For example, see Holmes, Richard *Riding the Retreat: Mons to the Marne 1914 Revisited* (London, Pimlico, 2007) pp.26 – 42; Terraine, John, *Mons: The Retreat to Victory* (Ware, Wordsworth Editions, 2000)

² Neillands, Robin, *The Old Contemptibles: The British Expeditionary, 1914*, (Lodon, John Murray, 2004) pp.100, 136, 138

³ Ian Beckett, “The South African War and the Late Victorian Army” in Davis & Grey (eds.) *The Boer War: Army, Nation and Empire* (Canberra, Army History Unit, 2000) p.32

⁴ Searle, G.R, *The Quest for National Efficiency: A Study in British Politics and Political Thought 1899-1914* (Oxford, Basil Blackwell, 1971) p.50

conflict in changing training and tactics was fundamental to the success of the B.E.F. in 1914. However, the curious nature of the Boer War and the unique colonial policing duties of the British Army combined to create to a somewhat skewed process of development in the 1902 – 1914 period. The South African conflict held many useful tactical lessons that were to prove of value in 1914, but the short length of the conventional period of the war meant that it taught little about large scale operational handling.

The Boer War provided a crucial catalyst for reorganisation and tactical reappraisal. The Victorian era army had possessed great flexibility and had performed well in numerous ‘small wars’ against poorly armed opposition, but the diverse nature of its colonial duties and an inability to disseminate useful lessons across the British Army as a whole meant that its quality varied widely, with some units benefiting from valuable combat experience and advanced training, while others were content with impractical, outdated drill that stressed obedience and steadiness over all other considerations. The shock of early defeats in the Boer War revealed that many tactical ideas prevalent in the army were now dangerously out of date, especially when employed against a skilful enemy possessing modern weaponry. The setbacks of ‘Black Week’ contributed to a process of in-theatre learning that ultimately led to a tactical reappraisal, emphasising extensions and individuality rather than linear formations and rigid control. Combined with a vast troop build up, these changes were successful in defeating the Boers, albeit only after a long and bitter guerrilla war. However, in the aftermath of the conflict, the British Army was forced to assess its approach to both tactics and training, taking what was useful from the South African conflict and discarding lessons that had been theatre specific. This process of reform was far from straightforward, and the entire Edwardian period was marked by ongoing tactical debates across all service arms of the British Army.

However, despite the peculiarity of the Boer War and the difficulty of assimilating the lessons from the conflict, the army did reach a consensus on the importance of several critical points. Three important lessons emerged for the infantry, who underwent the most striking change of all the combat arms. The skills necessary for victory in the Boer War, namely marksmanship, widely extended infantry formations and use of cover, became the cornerstones of infantry training in the aftermath of the South African conflict. Poor British marksmanship and the use of outdated volleys had characterised much of the early fighting in South Africa, and strenuous efforts were made to correct these glaring weaknesses. It has been suggested by James Edmonds in the British official history of the First World War that the tremendous rate of fire produced by British infantry in 1914 came about as a training response instituted in 1909 to compensate for a lack of machine guns, and this assertion has been repeated by subsequent historians such as Martin Samuels.⁵ However, while there was a

⁵ Edmonds, James (ed.) *History of the Great War: Military Operations France and Belgium*, (London, H.M.S.O, 1922), Vol.2, p.463; Samuels, Martin, *Command or Control? Command, Training and Tactics in British and German Armies 1888-1918* (London, Frank Cass, 1995), p.103

greater emphasis on rapid fire in the years prior to the First World War, the roots of British marksmanship training emerged immediately after the Boer War. Following the South African experience, musketry training underwent wholesale reform, with far greater allowances of practice ammunition being provided and firing at unknown distances becoming a feature of target shooting. Drawing upon combat examples from South Africa, musketry training emphasised accurate ‘snap shooting’ at 600 yards and under rather than precision at extreme ranges. The emphasis on accuracy and judging distances introduced in 1902 provided a crucial skill base, allowing the course to be made more demanding in 1909 with greater focus being placed on rapidity. In 1914 the improvements made to British marksmanship proved their worth. It was soon discovered that British infantry were capable of stopping German attacks in the 400 – 600 yards range that had been identified as critical during the Boer War, while one British veteran even recalled that his unit made use of local fire tactics that had been taught to him by “Brother Boer” in the earlier conflict.⁶

The British infantry also adopted the skirmish skills of the Boers. Widely dispersed and loose formations had become a vital element of British tactical success in South Africa, reducing casualties and allowing individual men to make the most of cover. As a result, close order was rejected except for conflict against ‘savages’ and wide extensions became a keynote of infantry tactics. The debate around extensions ebbed and flowed prior to the First World War, and while by 1914 the level of dispersion was reduced from that used against the Boers, it still remained larger than any other contemporary army.

In addition to presenting smaller targets, wide spacing amongst the men allowed greater use of local cover during combat. Whereas in the Boer War, troops had been poor at taking shelter and had suffered as a result, changes in training introduced as a result led to the creation of skilful skirmishing infantry that could move from point to point, taking advantage of local terrain. Although the widely extended formations that had been prevalent in South Africa were somewhat less appropriate for the crowded conditions of Europe, the ability of regular British infantry to take advantage of cover and fight in dispersed formation stood in contrast to German units that were seen to advance in close order at Mons and Le Cateau.

The influence of the Boer War was also felt in the artillery. For the Royal Artillery, the conflict had been the first opportunity to fight against a similarly armed enemy for over fifty years, and although the role of the gunners declined once the conventional stage of the war had come to a close, the experience of combat in the early part of the war created controversy and left a profound impression. The potential of long range fire, the value of concealment and the importance of co-operation between guns and infantry were all important lessons of the Boer War. Long range fire caught the attention of

⁶ Quoted in Terraine, *Mons*, p.83

the public during the war, and while it was quickly noted by military authorities that its physical effects were often limited, it could still cause considerable panic and fear amongst troops unaccustomed to it. Furthermore, the increase in small arms ranges had the effect of forcing guns away from the front line, rendering old close range tactics inappropriate. The British reacted by emphasising precision accuracy, with new weapons and range tables vastly increasing the range at which the guns could fight. Additionally, the introduction of a heavy piece in the form of the 60-pounder added a new element to British artillery tactics. While the gun has been criticised for basing its design purely upon South African experience, in 1914 it was the only gun with the range capable of engaging the heaviest German weapons. Problems stemmed from its limited numbers rather than any inherent design flaws, and its accuracy at great distances was the source of considerable admiration from the French in 1914.

Concealment and cover were more controversial factors for the artillery. Although the Boers had proved the incredible survivability of hidden guns, even when vastly outnumbered, some British gunners disliked the concept and felt that it offered diminished effectiveness compared to firing in the open. Under the leadership of Lord Roberts, cover and accuracy became the linchpins of Royal Artillery tactics following the Boer War, but the example of the dashing French *rafale* artillery system remained a seductive one for several years and was widely admired by the British. However, after a brief flirtation with French tactics, by the end of the Edwardian period the desirability of concealment was once again becoming predominant. The Boer War had initially demonstrated the value of hidden weapons, and the Russo-Japanese War had shown that to expose artillery to hostile guns invited almost certain destruction. Furthermore, various field trials ultimately proved that the British 18-pounder was technically incapable of mimicking French *rafale* tactics. The flexible culture of the British army meant that the ultimate decision on whether to fight in the open or behind cover remained with the local officers, but the value of concealment was recognised and the Royal Artillery did not become wedded to reckless tactics such as those of the French.

Co-operation between artillery and infantry had been crucial to British success in Natal and would later become the critical element for victory in the First World War. While the British demonstrated their capacity for in-theatre learning in achieving good co-operation between the arms in South Africa, the lessons became endangered following the conflict. It took the influence of the Russo-Japanese War to highlight the importance of co-operation and cause the British to recall their South African experiences. Debate flourished around the subject and improvements were made in training, with practical combat experience giving the British a head start in some tactical aspects, particularly regarding how long the guns should engage a target before the risk of friendly fire to attacking troops became too great. However, while useful work was done in this regard, the small size of the British Army and its culture of flexibility prevented there being any real systematic system of artillery

support. This was to become a weakness in the First World War where the vast scale of attacks meant that careful fire plans and thorough preparation were crucial.

Robert Scales has been critical of the reform of the Royal Artillery during this period, arguing that the Boer War kept the British gunners in a 'small war' mindset that compared unfavourably with the German army.⁷ In particular, Scales has been critical of the 60-pounder, arguing its South African inspired design was flawed for the conditions of the First World War in comparison with the powerful heavy German howitzers. However, such a comparison is unfair. The British 60-pounder was predominantly seen as a long range 'man killer' and counter battery weapon, not intended to fulfil the role of assigned to howitzers, and thus the comparison to German heavy howitzers that were designed to breach fortifications is not entirely valid. Scales cites the deployment of 5th Division's guns at Le Cateau as ultimate proof of the flawed nature of British artillery tactics, but as discussed in earlier chapters, this controversial deployment was a local decision and not followed by the guns of the remaining divisions. In 1914, it was not faulty British tactics, but the numerical preponderance of German guns that was the critical problem. For example, at Le Cateau, the Royal Artillery were outgunned by a ratio of more than 2:1, with a total of 228 British pieces engaged against at least 550 German weapons.⁸ Furthermore, although the Royal Artillery suffered heavy casualties during the struggle, the battle ended in a British victory that proved crucial to the survival of the B.E.F. as a whole.⁹

The cavalry also experienced reforms and rearmament in the aftermath of the Boer War. Two valuable lessons were derived from South Africa. These were firstly, the value of a combination of fire and shock, and secondly, the importance of reconnaissance and its associated skill of horsemastery. The fire and shock debate was perhaps the most famous of all the discussions arising from the Boer War, but the acrimonious nature of the arguments regarding the direction of reform has sometimes disguised the actual quality of the results. While there had been a growing appreciation of dismounted fire prior to the Boer War, the struggle in South Africa conclusively proved its value, particularly during the holding action at Koodoosrand which led to the siege and eventual capture of Cronje's laager. However, the war also offered evidence of the value of mounted troops in a more traditional role. The cavalry had mounted a brutally effective charge at Elandslaagte and used speed to break through a Boer line at Klip Drift. Steel weapons were withdrawn in mid-1900 to lighten the load on overburdened horses depriving the cavalry of a shock weapon and preventing further successful charges. However, in the guerrilla phase of the war the Boers adopted more aggressive

⁷ Scales, Robert 'Artillery in Small Wars: The Evolution of British Artillery Doctrine 1860 – 1914', PhD Dissertation, Duke University, 1976, p.314

⁸ Ascoli, David *The Mons Star* (Edinburgh, Birlinn, 2001) p.99

⁹ Bird, Antony, *Gentlemen, We Will Stand and Fight: Le Cateau, 1914* (Ramsbury, Crowood Press, 2008) p.176

tactics, charging directly against British formations and winning a number of victories in the process, providing evidence that a mounted charges remained viable.

Critics argued about the precise implications of the Boer War for cavalry tactics, noting the success of both fire and shock tactics. Although certain extreme views were put forward from both sides, the debate remained relatively narrow, with the focus on the level of emphasis to be given to each duty rather than abolishing either rifles or swords entirely. Indeed, after several years of acrimony a hybrid model that advocated equal skill with cold steel and rifle emerged, largely settling the debate. The process of reform, particularly in the early years, was painful and touched upon raw nerves, but by 1914 it had created unique cavalry tactics that were far in advance of either French or German rivals. The quality of British dismounted work was perhaps most clearly illustrated at the 1st Battle of Ypres in 1914, when cavalry were able to occupy positions on the Messines Ridge and defend it against German infantry assaults. The British also had success against German horsemen. German cavalry was forced to rely upon light infantry for fire support, slowing them down and discouraging bold moves. Despite possessing five cavalry divisions compared to a single B.E.F. cavalry division, the German horsemen were unable to make their numbers count and suffered stinging defeats in several small engagements.¹⁰ Historians have often been critical of the British cavalry in this period, arguing that it failed to reform and remained dedicated to shock tactics.¹¹ In fact, while the process of reform was marked with controversy, it ultimately produced a useful tactical hybrid that was far in advance of continental cavalry tactics.

The clashes between British and German cavalry in 1914 also revealed the success of reforms aimed at improving cavalry reconnaissance. The duty had not been taken seriously by British cavalry prior to the South African conflict, with the result that reconnaissance often proved risible in the Boer War, with British attacks blundering into concealed Boer positions and suffering heavy losses as a result. Furthermore, the demands of long range reconnaissance riding had contributed to appalling horse attrition on the veldt. In the aftermath of the conflict, reconnaissance work was given renewed emphasis. Specially trained scouts were attached to each cavalry formation and more realistic training exercises were introduced. Additionally, simple practical lessons drawn from the Boer War became standard practice, such as dismounting and walking alongside the horse whenever possible. In combination with superior British tactics, this improved training in reconnaissance and horsemastery gave a crucial edge over the German cavalry in the early months of the First World War. German cavalry proved poor in a reconnaissance role, leaving commanders bereft of crucial intelligence, and within a matter of weeks bad horsemastery habits had taken a serious toll on their animals.¹²

¹⁰ Badsey, Stephen, *Doctrine and Reform in the British Cavalry 1880-1918*, (Aldershot, Ashgate, 2008) p.243

¹¹ Edward Spiers, "The British Cavalry, 1902-1914" in *Journal of the Society for Army Historical Research*, LVII(230), 1977, p.79; De Groot, Gerard, *Douglas Haig 1861 – 1928* (London, Unwin Hyman, 1988) p.109.

¹² Cave, Nigel & Sheldon, Jack, *Le Cateau*, (Barnsley, Pen & Sword Military, 2008) p.14

Conversely, British reconnaissance and screening proved far more effective, with horses remaining fit in the field.¹³

However, although the Boer War provided several crucial and lasting tactical lessons, the process of reform following the conflict was not entirely smooth. Some lessons faded from memory, while others were influenced and reshaped by other factors such as the Russo-Japanese War. Furthermore, despite their modern weapons, the Boers were unique opposition and South Africa a peculiar theatre of war, meaning that direct parallels between the Boer War and a European conflict were potentially misleading. For example, although the Boers possessed a handful of modern artillery pieces, they were massively outgunned by the Royal Artillery. With the exception of the Battle of Spion Kop, Boer artillery fire tended to be of nuisance value and taught the British little about the potential dangers of facing heavy shell fire. Inexperience in facing enemy artillery meant that in the early part of the First World War, British infantry tended to site their trenches with a view to acquiring the best possible field of rifle fire, neglecting the fact that this often exposed the position to crushing German bombardments. Additionally, although Boer trenches had been excellent and served as a model for the British in the years following the war, over time there was a distinct decline in interest in the subject. The tedium of digging trenches in peacetime and a fall in the number of veteran troops who appreciated their full value were important factors in the deterioration of entrenchment training. Thus, although entrenchment remained a key military skill, the quality of training in the subject fell noticeably in the years prior to the First World War.

A second misleading Boer War lesson concerned the employment of machine guns. The machine gun performed poorly in South Africa, with the unwieldy weapons making perfect targets for Boer artillery and riflemen. Jams and breakdowns were extremely common, and even when they were able to get into action the use of cover and trenches by the Boers meant that they rarely had a good target to engage. The disappointing results meant that in the aftermath of the war, the weapons were neglected by the army as a whole, with just a handful of adherents arguing for greater employment. Ultimately, although financial considerations were the key element in preventing an increase in their numbers prior to 1914, the fact the weapon had performed so poorly against a 'civilised' opponent in the Boer War did little to improve the reputation of the machine gun as anything greater than a "weapon of opportunity", or encourage its further development.

The Boer War may have provided the catalyst for change in 1902, but it was not the only source of tactical ideas during the pre-First World War period, and the influence of continental thought and the Russo-Japanese War became important factors in the latter years of the Edwardian era. The Manchurian conflict in particular caught the eye, with the British Army despatching a record number of observers to study the war. The struggle between Japan and Russia seemed to offer certain

¹³ Badsey, *Doctrine and Reform*, p.239

contradictions to the tactical assumptions regarding firepower that had emerged during the Boer War. The Japanese success in pressing frontal attacks against entrenched Russian defenders posed a counterpoint to post-Boer War British ideas that direct attacks against modern weapons would be virtually impossible. The occurrence of bayonet fighting on a surprisingly regular basis in the Far East also suggested that firepower was not the only consideration in battle, and that courage and willpower could still carry the attackers into the enemy position. Such examples were particularly appealing to continental thinkers, who had generally been contemptuous of British tactics and combat performance in the Boer War, and who often saw Japanese successes as a vindication of their earlier ideas. Furthermore, the Russo-Japanese War was seen as being more relevant to European warfare than the South African war, being waged between two genuine powers with continental style tactics and equipment. While it is clear with the benefit of hindsight that the Russo-Japanese War showed the dominance of firepower and the value of entrenchment, at the time such conclusions were less common. Indeed, a virtual consensus emerged upon the continent that the war demonstrated the continuing power of the attack over passive defence, and that while firepower had undoubtedly developed, courage and an acceptance of casualties would still ultimately ensure success.¹⁴ Analysis of this consensus by subsequent historians has generally argued that due to the ambiguity surrounding some of the lessons of the war, European militaries tended to use them to confirm existing ideas rather than create new tactical concepts.¹⁵

Fortunately, in the case of the British Army, many of the more valuable examples that emerged from the Russo-Japanese War were already part of existing tactical thought developed from the Boer War. For example, the value of concealing field guns and the need for close co-operation between infantry and artillery were concepts that had been clearly demonstrated in South Africa, and their importance in Manchuria served as a timely reminder for the Royal Artillery. While other lessons of the conflict contributed to ongoing debates within the service arms, their long term influence was often limited. In common with other European armies, elements in Britain were impressed by Japanese assaults and advocated a reduction of infantry extensions in the attack. Allied to this idea, parts of the British Army rejected the cautious attitude that had been adopted towards the offensive in the aftermath of the Boer War, instead echoing European opinion and extolling the virtues of willpower in overcoming superior firepower. However, in contrast to European forces such as the French, these ideas were never entirely accepted by the British in the pre-First World War period. While extensions were reduced from the scale used in the Boer War, they still remained wider than those used by the Japanese during the final stages of the Manchurian conflict. Equally, although the concept grew in

¹⁴ Yigal Sheffy, "A Model Not to Follow: The European Armies and the Lessons of the War" in Kowner, Rotem (ed.) *The Impact of the Russo-Japanese War* (London, Routledge, 2007) pp.262-264

¹⁵ *Ibid*, p.263-264; Snyder, Jack *The Ideology of the Offensive: Military Decision Making and the Disasters of 1914* (Ithaca, Cornell University Press, 1984) pp.77-81

popularity, the belief in offensive tactics never became a cult for the British and had limited influence at tactical level, although the virtues of the offensive were often extolled at higher levels.¹⁶

In the most thorough analysis of the influence of the Russo-Japanese War upon the British Army, Phillip Towle has argued that while the war was an important influence upon the Royal Artillery, its effect upon infantry and cavalry was limited and temporary.¹⁷ Instead, tactical ideas drawn from the Boer War remained the core principles of British training, with the Far Eastern struggle reinforcing the importance of such concepts as extension, concealment and co-operation rather than proving their inefficiency. The Russo-Japanese War did not cause a fundamental overhaul of tactics in the way that the Boer War had done, instead contributing to ongoing tactical debates that were still rooted in South African experience. The Manchurian conflict showed that many of the tactical lessons of the earlier war had been largely correct, particularly regarding the use of field artillery, but offered comparatively little that was entirely new to British tactics, which remained based firmly upon the experience gained in the Boer War. Its most important influence was to encourage a greater belief in the offensive, an interpretation that seemed to run contrary to the tactical lessons of the war, but one which became popular at an operational level amongst armies across Europe, including Britain. However, in terms of driving tactical reform in the British Army, the Boer War was of greater importance than the Manchurian conflict.

Firmly based on the Boer War, but also shaped by the Russo-Japanese War and examples from continental thinkers, the learning process undertaken by the British Army in the 1902 - 1914 was not straightforward, but was instead set against a background of political and economic shifts, with regular changes at the War Office causing confusion in the early part of the period, and the constant need to keep the Army Estimates low providing a limiting factor during the Haldane years. While initially the tactical experiences of the Boer War were dominant in driving reform, their influence declined somewhat as the conflict faded from memory. The fact that not all the Boer War lessons prevailed by 1914 has been cited as evidence for the fact the war had limited tactical impact, while others have argued that those that did prevail were actually fallacies that were to prove irrelevant in the First World War.¹⁸ Even positive assessments of the army of the period have concluded that a number of the reforms introduced following the Boer War suffered from incomplete implementation.¹⁹ The harshest critics of the British Army in this period have been Martin Samuels

¹⁶ Tim Travers, "Technology, Tactics and Morale: Jean De Bloch, the Boer War and British Military Thought 1900-1914" in *Journal of Military History* 51(2) 1979, p.277

¹⁷ Towle, Phillip "The Influence of the Russo-Japanese War on British Military and Naval Thought 1904-1914" PhD, University of London, 1973, p.1

¹⁸ Beckett, "The South African War" in *The Boer War: Army, Nation and Empire*, p.32; Searle, *Quest for National Efficiency*, p.50

¹⁹ Ramsay, M.A., *Command and Cohesion: The Citizen Soldier and Minor Tactics in the British Army 1870-1918* (Westport, Praeger 2002), p.145

and Tim Travers.²⁰ Both authors paint a negative picture of an anachronistic army, with Travers in particular emphasising resistance to modern ideas from an officer corps that was divided by rivalry and jealousies. Samuels treads similar ground, arguing that at operational level the culture of flexibility was positively harmful, leading to unnecessary defeats and abdication of command responsibilities. Both conclude that the British Army was not prepared for the First World War, with Samuels going further, arguing that it failed to improve much during the 1914 – 1918 period.

However, such negative interpretations are largely based on an analysis of the British Army at an operational rather than tactical level. The influences of the Boer War were felt most keenly at low level, where the lessons derived from combat experience could be put in to practice. Conversely, the short duration of the conventional stage of the war meant that, despite the number of British and Empire troops committed to South Africa, there was little to be learned about handling formations at divisional level and above in a continental style war. In combination with the colonial policing role of the British Army, this contributed to an unusual developmental direction, which emphasised tactical excellence and high levels of flexibility while operational level work was assigned a lower priority. However, although Travers and Samuels have valid criticisms regarding the operational development of the British Army, they marginalise the quality of low level tactics that had emerged following the Boer War. Samuels in particular is quick to criticise British military performance compared to that of the German army, but ignores the fact that in the crucial battles of 1914, the Germans were unable to defeat the B.E.F. despite possessing a vast numerical advantage and a well developed operational doctrine. In these confused ‘soldier’s battles’, the advanced low level tactics of the professional British Army proved superior to those of her opponent. In 1914, the quality of B.E.F. low level tactics proved to be critical to both survival and victory, and the operational weaknesses of the British Army would only begin to be seriously exposed when called upon to undertake demanding offensives in 1915.

The difficulties experienced by the British from 1915 onwards have sometimes led to criticism of the B.E.F. in 1914. In the most recent study of the regular B.E.F., Robin Neillands has concluded that the army was “far too small and quite inadequately equipped” for a continental struggle.²¹ Yet it is important to remember that European militaries and governments all anticipated a short, sharp war that would be over in a matter of months.²² The British Army was expected to play a relatively minor role on the left flank of the French, while the decisive offensive blow fell on the right flank against Alsace-Lorraine. Based on the anticipation of a limited role in a short continental war, the B.E.F. was by no means as ill-equipped as Neillands asserts. Furthermore, despite its weaknesses, the

²⁰ Samuels, *Command or Control?*; Travers, Tim, *The Killing Ground: The British Army, the Western Front and the Emergence of Modern War 1900-1918* (Barnsley, Pen & Sword, 2003).

²¹ Neillands, *Old Contemptibles*, pp.3, 78

²² Joll, James, *Europe Since 1870* (London, Penguin, 1990), p.193

flexibility and professionalism of the B.E.F. meant that it was surprisingly well suited for the chaotic and hard fought battles that marked the opening months of the war. Placed in the path of the German onslaught in 1914, the B.E.F. proved its tactical adaptability and although it suffered severe casualties, it played a critical role in halting the offensive, particularly at 1st Ypres.

However, the cost was high and the old regular army was effectively destroyed by the end of 1914. Nevertheless, many of the tactical principles that were key notes of the regular B.E.F., particularly skilful infantry tactics, close artillery co-operation with infantry and a respect for firepower were to become crucial to the ultimate success of the British Army in the later stages of the First World War. Unfortunately, the small size of the regular army and the failure to codify a formal written doctrine meant that once the old B.E.F. was destroyed, the New Armies were forced to learn largely from scratch, repeating mistakes that had been identified in the Boer War and enduring a number of bitter setbacks before were able to combine both tactical skill with strong operational handling. Faced with the challenge of adapting to a modern war, it was not until 1917 that the British Army was able to emerge from its colonial army roots and develop into a skilful and ultimately war-winning force.

By the end of the 1902 – 1914 period, the armies of Europe had been forced to adapt themselves to a variety of technical and tactical changes. The success of the process of adaptation would only be revealed in the acid test of combat. The B.E.F. which deployed in the opening months of the First World War was a small colonial police force that stood in contrast to the mass armies of the continent. However, the British Army had benefited from the influence of the Boer War, which had been the predominant factor in the tactical reforms that led to the creation of the highly trained B.E.F. Not all of the lessons of the Boer War had endured and some ideas were inapplicable to a European conflict, but key tactical principles learned on the veldt had prevailed in infantry, cavalry and artillery, contributing to the creation of a small but skilful army. Combat experience against well armed opponents in the Boer War gave the British a head start on numerous tactical problems that were to become apparent in 1914, including concealment, extensions and use of firepower. The process of development had not been smooth, with the army struggling against continuous budget cuts and also a variety of duties that no other army in the world had to face. This contributed to a development path that largely ignored operational doctrine and did little to prepare the B.E.F. for deployment in anything greater than divisional strength, but at the same time encouraged flexibility and strong tactics at low levels. Like all armies in the First World War, the British made both tactical and operational errors in the opening months of the conflict. However, despite its colonial background and operational limitations, it was able to win critical battles against a numerically superior army that was widely regarded as the finest in Europe. The success of the B.E.F. in these early clashes was principally due to the fact that the British Army had been able to learn and absorb the combat lessons of the Boer War. Despite the existence of numerous competing ideas and examples, the South

African experience remained the foundation of British tactical reform in 1902 – 1914, giving the B.E.F. the skills that proved so important in August 1914.

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