The influence of continental examples and colonial welfare upon the reform of the late Victorian army.

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THE INFLUENCE OF CONTINENTAL EXAMPLES AND COLONIAL WARFARE UPON THE REFORM OF THE LATE VICTORIAN ARMY.

1980

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ABSTRACT

Army reform in late Victorian Britain was influenced both by observation of foreign armies and by Britain's experience of imperial warfare. Immediately after the Prussian campaigns of 1866 and 1870-71, most British army reformers became imbued with uncritical admiration for the military organisation of Germany. Some tended to retain this attitude throughout the late nineteenth century. Rather more began to adopt a detached stance towards the German and other continental armies. These reformers sought to develop a British school of military thought and organisation, based as much upon the needs of imperial defence as upon the relevant foreign examples. The chief proponents of this view were also close associates of Lord Wolseley. Critical of both the continentalist and imperial reformers were numerous conservatives. Their influence hampered the development of most reforms during the period under review.

Planning for mobilisation, foreign in concept, was shaped to Britain's peculiar form of localisation and to warfare on a scale demanding an expeditionary force of no more than 70,000 troops. The example of continental manoeuvres prompted their emulation in Britain. Tactical doctrine was transformed by progressive thinkers, who also had a marked though limited effect upon training. Regular cavalry training remained traditional, but experiences in colonial warfare led to the formation of a mounted infantry corps. Higher education in gunnery was developed in response to observation of foreign armies, while concern for imperial defence produced a reorganisation of the Royal Artillery at the end of the century. Debate concerning the logistics of conventional and irregular warfare bore fruit in the formation of the Royal Army Service Corps and a relatively sophisticated organisation of communications. These reforms exemplified the growing professionalism and modernity of the late Victorian Army.
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ABBREVIATIONS

A.O.  Army Orders

A.C.  Army Circulars


G.C.  General Circulars

J.R.U.S.T.  Journal of the Royal United Service Institution

P.P.  Parliamentary Papers

P.P.R.E.  Professional Papers of the Corps of Royal Engineers

P.R.O.  Public Record Office, London

Proc. R.A.I.  Minutes of Proceedings of the Royal Artillery Institution

Tracts  Tracts Relating to Military Affairs

U.S.M.  United Service Magazine

W.O.  War Office Papers, Public Record Office

Bibliographical note: the identification of anonymous contributors to civilian periodicals is taken, unless otherwise stated, from The Wellesley Index to Victorian Periodicals, eds. W.E. and E.R. Houghton. (3 vols. Lond. and Toronto 1966-79)
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INTRODUCTION
Army reform in Victorian Britain has engaged the serious attention of scholars only in the past two decades. Many areas, however, have already come under examination.

Short service and the localisation system have been considered by Brian Bond and other writers. The abolition of purchase has been studied in meticulous detail. Those "shadowy automata", the rank and file, have found an excellent historian, whose work comprehensively analyses the recruiting problem. For all practical purposes, the Staff College has received its definitive history in a study which also illuminates much of the military professionalism of the period. A full-scale examination of the War Office is still needed, although a good institutional study by W.S. Hamer has gone some way towards filling the gap. The pioneering work of Hew Strachan has reconsidered the


much-maligned pre-Crimean army. In the field of military thought, the work of Jay Luvaas is indispensable. Howard Moon has written in some detail on the invasion scares. Adrian Preston has been a devoted student of Wolseley for many years and has cast light not only upon his career but on some of the military politics of the late nineteenth century. Finally, a recent study touches upon all these subjects, but is more concerned to formulate heuristic devices than to demonstrate the social character of the Victorian army from precise evidence. Cumulatively, these writings tell us a good deal about the place of the army in Victorian Britain, though major studies of civil-military relations or of the social constitution of the army are still awaited.

This growing volume of historical debate has compelled revision of many assumptions about the military institutions of the period under


7. The Education of an Army British Military Thought, 1815-1940 (Lond. 1964); and The Military Legacy of the Civil War (Chicago 1959); also the subject of Adrian Preston, "British Military Thought, 1856-1900" Army Quarterly and Defence Journal 89 (Oct. 1964-Jan. 1965), 57-74.


review. To this reassessment the present study seeks to contribute. Its central theme is the contrast between the continental models of military organisation which provided a continual impulse to reform in Britain, and the requirements of an empire with a naval first line of defence and scattered geographical responsibilities. A primary concern has been to combine the study of army organisation with the more abstract aspects of military thought. To do so it has been necessary to examine a wide range of issues, embracing the general organisation for war, reforms affecting individual services, theoretical debates, and the details of training.

The introductory survey seeks to distinguish the main strands of military thought in Victorian Britain as a backdrop to the detailed arguments of the ensuing chapters. Mobilisation schemes and the way in which they were modified to suit British conditions are discussed in the second chapter. Training of higher units is the subject of the third. Debates about the role of infantry and artillery in modern war and the manner in which new ideas filtered down to reforms at regimental level are the concern of the fourth chapter. Cavalry and mounted infantry are considered in a similar fashion in the fifth. The penultimate chapter discusses the introduction of higher education into the artillery and changes in its organisation. Finally, the performance of the supply and transport system in two selected colonial wars is assessed and the influence upon the home organisation of the experiences typified by these wars is demonstrated. Exigencies of space have strictly abbreviated the study of army administration in this chapter. Our starting and finishing points - the Franco-Prussian war and the South African war - were very real dividing lines. The campaigns of 1866 and 1870 established Germany as the cynosure of the military world. The subsequent decades saw reformers trying to work out the extent to which
practices suitable to a great continental power might be applicable to a great imperial power, for which the overseas expedition or punitive operation was its characteristic mode of warfare. From 1899, Britain's strategic position in the world was profoundly altered.

By this date, much remained in the British army what was archaic, and much had been accepted in principle that awaited adequate implementation in practice. Nonetheless, our fundamental thesis is that, during the period under review, the British army became a modern one in certain precise aspects; namely, in the foundation of mobilisation schemes, the higher education of officers, new principles of training, and the articulation of supply and transport. The ensuing argument seeks to substantiate this contention.
CHAPTER 1.

Patterns of Thought in the late Victorian Army.
A standard criticism of Victorian military planning is that, apart from the Stanhope memorandum of 1868, it failed to define the role of the army or prepare it to perform functions authoritatively laid down. The Stanhope memorandum itself has usually been seen as a measure of pure economy. This and the succeeding chapter do not deny the shortcomings of policy decisions on the role of the army. Rather, they point to the considerable amount of debate amongst reformers concerning the purpose of their nation's military institutions. By examining the whole spectrum of opinion on this issue, from off-hand comments in the service press to informed debate within the War Office, it is possible to adumbrate the extent to which reforms were influenced by differing preconceptions as to the army's functions. Likewise, it is possible to discern the emergence of consensus on this vital issue amongst a number of leading reformers. Intimately associated with the question of its role was the pattern of military thought in the army. Many reformers revealed their assumptions about its task while discussing matters of less moment. Every ensuing chapter provides examples of how advocates of particular points of view buttressed their contentions by insisting, according to their predilections, that the army's primary duty was to prepare for continental or imperial warfare. At this stage, therefore, it is proposed to delineate the chief schools of thought in outline.

Around the major questions of reform in this period three main schools of opinion seem to have developed. The first group may be called the continentalists. Their position was defined either by their explicit conviction that the army should prepare for war in Europe on a grand scale, or implicitly by their preoccupation with European developments to the virtual exclusion of imperial warfare. The second group may be called the traditionalists. Their hallmarks were, first,
profound antagonism with the Cardwell reforms, and, second, an apparent oblivion to the question of the role of the army altogether. The final group may be termed the British or imperial school. They were distin-
guished by their readiness to acknowledge the importance of colonial warfare, sometimes by their overt belief that the army would never again fight on European soil, and by their adherence to the principles of the Cardwell system.

Some qualifications may be introduced at this point. Allowances must be made for shades of opinion and change over time. Many of those who can be called continentalist in 1871 hardly merit the soubriquet by the late 1880s, when the Egyptian question and the growing Russian threat had commanded attention to the problems of imperial defence. Frequently two of the schools coincided upon certain issues. Continentalists and the imperial school agreed upon the necessity for short service, however much they might differ over the form it should take in Britain. Traditionalists and the imperial school were both, in a sense, "British" in outlook, but whereas the first dwelt on past insular traditions, the second were concerned with the modern empire. Although the Cardwell system provided a general dividing line, different minor issues could bring about different alignments. People could advocate change on one matter but resist it on another. Moreover, many reformers seem to have been wholly absorbed with the narrow subjects which engaged their immediate attention. Not a few of those who carried out reforms in circumscribed spheres were apparently unaware of the larger questions of their age.

An acknowledgement of two major omissions in this study should be made here. It has been impossible to consider, save in the merest outline, the group of reformers associated with Lord Roberts. The Indian army demands its own experts and the present writer has not
been competent to essay any part of its complex history. As for the reformers with whom we are concerned, they were very much a numerical minority in the army. Just how far the silent majority shared in the opinions which the articulate minority recorded with such prolixity is a question perhaps unanswerable, for obvious documentary reasons. Nonetheless, the present writer has been constantly aware that the most articulate were probably also the least representative. All that may be said is that the minority was a large one, and that its influence seems to have been vastly disproportionate to its numbers.

The Continentalists

That the Prussian campaigns should have made a profound impact upon all those concerned with military reform hardly requires explanation. Those "strange, unprecedented, overpowering" victories were the great event of their generation, the more so for those who had witnessed their conduct. Several of those who were soon in the vanguard of army reform were first-hand observers of the foreign scene in 1866 and 1870-71. Charles Brackenbury, later Director of the Artillery College and a military writer of international repute, was correspondent for the Times with the Austrian army in 1866, and watched the battles along the Loire in 1870. His brother Henry, Director-General of Ordnance during the South African war, toured the battlefields of the Austro-Prussian war


2. Lieut. J.F. Maurice, The System of Field Manoeuvres best Adapted for enabling our Troops to Meet a Continental Army (Lond. 1872), 79.

during the late 1860s, was in France in 1870-71, and immediately wrote a book based upon his observations. Initially, it seemed to many reformers that no subject could hold more interest for soldiers than the Prussian army, and no better model could be found for British reformers than its experiences and practices. As one commentator urged, reflecting an attitude pervasive in the military literature of the early 1870s:

> We must modify our dress, our equipment, our drill, our training, our organisation, to meet the changes which are demonstrated to us from day to day by the graphic descriptions of the war now raging in France.

For some years after 1866, an intense admiration for Prussian military institutions tended to characterise reformers of every stamp. What particularly distinguished the reformers who have been called "continentalist" was their adherence to this admiration throughout the period and their lack of interest in forms of warfare which did not conform to the pattern typified by Königgrätz, Mars-la-Tour, Gravelotte, or Sedan. It is proposed to discuss here two notable "Prussophiles" who were most illustrative of this school of thought. Many other examples will emerge in the course of our consideration of specific issues. The commentators whose views are outlined here were far from important in the development of practical reform. Indeed, their significance was something of a negative one. They exemplify an

4. Ibid, 73-75, 87-167; and his Les Maréchaux de France Etude de leur Conduite de la Guerre en 1870 (Paris 1872).

approach which, novel and innovative in the early 1870s, hardened into a sterile dogma out of touch with the immediate problems facing Britain as the century advanced.

Colonel Lonsdale Hale was a Royal Engineer of academic leanings, first an instructor in military history at Chatham and then a professor at Camberley. He was a prolix commentator at the R.U.S.I., contributed on occasion to the proceedings of the R.A.I. and to the United Service Magazine, and was one of the first British practitioners of the war game. One looks in vain for any signs of his influence outside the arena of theoretical debate. As a military historian, Hale specialized in minute dissections of the great battles of the Franco-Prussian war, relying chiefly on the German official history, of which he was the authoritative English translator. His Tactical Studies of Colombey-Nouilly and Vionville is a factual compilation of extraordinary aridity, unenlivened by any flashes of wit or attempts to point the most obvious morals of the engagements. Evidently designed as a text for unfortunate Staff College students, it testifies to the limitations of their historical instruction at that period.

6. A delightful summary of Hale's career will be found in Brian Bond, The Victorian Army and the Staff College (Lond. 1972), 293.

7. Expert opinion has differed drastically upon the German official history. Sir Basil Liddell Hart called it "a masterpiece of varnish": The British Way in Warfare (Lond. 1932), 43; the greatest living expert on the 1870-71 war has written with profound respect of the scholarship of those military historians of a past generation; Michael Howard, The Franco-Prussian War (Lond. 1961), pref.; after living with the official history throughout his adult lifetime Maj.-Gen. J.F. Maurice recorded his opinion that in its volumes "... every technical detail was pushed into an adventitious prominence till even for us the thing that came to be called the history of the War was little other than a burden to the flesh": The Franco-German War (Lond. 1900), ed. Maurice, pref.

8. (Lond. 1877). His later work, The People's War in France (Lond. 1904), is slightly less incredibly boring. Also cf. Bond, op. cit., 136, 154.
As speaker and writer Hale was all of a piece. During a long peroration at the R.U.S.I. on military study, he summed up the whole matter by advising his brother officers to master elementary tactics, ignore theoretical treatises, and saturate their minds with the facts of the Franco-Prussian war.9 Somewhat at variance with this dictum was his own tactical writing, in which he delighted to dwell upon abstract schemes of attack and defence unadulterated by any reflection upon the facts.10 For him, as the artillery reformer Henry Hime remarked of the school Hale represented, the art of war dated its birth from the fourth of August, 1870.11 Evelyn Wood wrote in 1909 that "Lonsdale Hale knows more details about the Franco-Prussian War of 1870-71 than any other officer I have ever met" 12 and indeed he was always reluctant to dwell upon anything else. A lecture he delivered to the R.U.S.I. in 1876, purportedly surveying the use of military history, was in fact a minute examination of particular episodes of 1870, as expounded by the German official history. Although a stimulating discussion followed the lecture, Hale himself paid no attention to the professional value of military history. His prescription was simply that "It (the German official account) should be studied page by page, paragraph by paragraph, sentence by sentence, line by line ..." 13 As for Britain's own military


11. Lieut.-Col. H.W.L. Hime, Stray Military Papers (Lond. 1897), 5-6 (A work representative of the British school at its most explicit).


experiences, he was convinced that they taught the student of war nothing:

An officer who has seen service must sweep from his mind all recollections of that service, for between Afghan, Egyptian, and Zulu warfare and that of Europe, there is no similarity whatever. To the latter the former is merely the play of children. 14

Another distinctive example of the continentalist school was F.N. Maude. He spent his early years in Germany, was educated in Britain, commissioned in the Royal Engineers, and later qualified at the Staff College. His career as a soldier was decidedly undistinguished; he served twenty years in India without seeing active service and returned to Britain with the rank of captain. But he was successful enough with publishers, writing first for an American firm, then contributing to Philip Colomb's famous prophecy of invasion, The Great War of 189-, and in due course producing a series of books for the house of William Clowes. After the Boer war Maude began to write regularly for the national periodicals, controverting therein with none other than Jean de Bloch, whose name W.T. Stead had made familiar to readers of his Review of Reviews. 15 Maude also helped to introduce


15. Biographical points from: Hart's Army List (1907); Roll of Officers of the Corps of Royal Engineers from 1660 to 1898, ed. Capt. E.F. Edwards. (Chatham 1898); pref. to Maude, Military Letters and Essays (Kansas 1895); Maude, "Internal Organisation in Time of War", Contemporary Review 81 (1902), 42. For Bloch: his articles "Some Lessons of the Transvaal War", ibid, 77 (1900), 457-71; "Militarism in Politics", ibid, 80 (1902), 761-93; Maude, "M. Bloch as a Prophet", National Review (March-Aug. 1901), 102-14; Review of Reviews 25 (1902), 136-42, 160-61, 504.
Clausewitz to the British public, editing in 1908 a reissue of Graham's 1873 translation. 16

Much of Maude's writing was sterile and it is not proposed to inflict upon the reader a prolonged exposition of his views. Nevertheless, as a tireless proponent of continental ideas in Britain he is at least worth some mention. He was something of a stylist, and works such as his Leipzig (1908) or War and the World's Life (1907), certainly repay perusal. What is especially interesting in his writing is the way in which an extreme rigidity of thought could be combined with all the apparent features of the scientific soldier. Tactically, his faith in the offensive and moral factors rivalled that of the most backward-looking of those who sighed for the days of the long-service soldier and even for Brown Bess. But there the resemblance ends. Maude believed in study and professional debate; he could hardly have accepted the editorship of the R.U.S.I. journal, which he held from February 1894 to January 1896, if he had been convinced otherwise. He was contemptuous of outward trappings and show, regarding war as a profoundly serious study which demanded a lifetime's devotion to master. Like Foch, Maude believed that an unbridgeable gulf lay between the understanding the commander should have of war and the simple doctrines of complete self-sacrifice which should be absorbed by the rank and file. 17 All this marked him as one of a very different breed from those who were identified with the position held by the Duke of Cambridge. A cautious parallel may be drawn between the rhetorical styles of Maude and J.F.C. Fuller,

16. On War, transl. Col. J.J. Graham and revised by Col. F.N. Maude (Lond. 1908). Also see references to Maude's work in T.M. Maguire's edition of General Carl von Clausewitz on War (Lond. 1909). This was a commentary rather than a translation; Maguire, a prolific and pretentious civilian writer on war, overwhelmed the extracts with his own effusions. As his daughter and amanuensis respectfully remarked, her father had improved the original with some comments of his own, "with which, as he says, Clausewitz would have agreed, had not that man of genius died in 1831." (Introduction).

17. The Liepzig Campaign (Lond. 1908), viii-xxiii; Marshal Ferdinand Foch, The Principles of War, transl. Hilaire Belloc, (Lond. 1918), ch. 10; Maj.- Gen. Sir George Aston, The Biography of the Late Marshal Foch (Lond. 1930), 92-93.
though the two writers were not of comparable intellectual calibre. Both were outside of the world of official army reform, both possessed an almost mystical sense of the study of war and tended to reduce all questions to first principles, of the existence of which neither had the slightest doubt.\(^{18}\)

Maude’s arguments may be easily summarized. In his view, most British observers in the decade after 1866 fell into the fallacy of "post hoc, ergo propter hoc", and assumed that the great battles in France portrayed the art of warfare in its perfection. He was at one with J.F. Maurice and other commentators who quickly became convinced otherwise, but whereas those who concurred with Maurice argued that the Germans had used the offensive to excess, Maude thought the precise opposite. He was distressed, therefore, to find British doctrine becoming more and more influenced by what he called the "tactics of timidity." His models were those continental writers who advocated a return to massed formations and stressed the superiority of moral factors. To Maude, this was the very latest in modern ideas. It is abundantly clear that continental practices monopolised Maude’s attention and commanded his admiration at Britain’s expense.

Despite lip-service to the special requirements of British institutions, the Prussians for him were a model without peer.\(^{19}\)

Instances of praise for Germany and denigration of current British

\(^{18}\) Fuller’s tribute to Maude in preface to The Conduct of War may be noted.

trends abound in his writings. Britain was on the highroad to disaster in putting a premium on the conservation of manpower; a lesson, to him, "written in characters of blood all over Europe." The superiority of the German system was manifest to him in its officer education, training at every level, and the moral attitudes of the nation towards its armed forces. In brief, as he wrote in 1891: "As the German Army now stands, I believe it to be the most perfect engine of war ever yet put together." Therein, he felt, was exemplified the true meaning of discipline, which, ceteris paribus, he understood to be "that quality which is measured by the endurance of loss by troops under fire ..." This was the mentality which assessed commanders by the length of their casualty lists. Maudé's view of the German army may have been very much of his own imagining, but that does not invalidate the main point. He portrayed the turn of mind which thought primarily in terms of a bloody and decisive war in a European theatre and dismissed the small war as unworthy of study.

20. Maudé's remark: "The writer's object throughout has been to present or discuss English military institutions and forms, from the point of view and in the spirit of modern warfare as understood in Germany ...", (Letters on Tactics, pref.), seems to have led Professor Luvaas to include Maudé amongst those who headed the reaction against the Prussophiles (The Military Legacy of the Civil War Chicago 1959, 117). It will be clear that I regard this as a misinterpretation.


Examples of this approach may be multiplied. In his study of the art of war Sir Reginald Hart refused his colleagues' advice to include a section on irregular operations; to him all warfare could be reduced to the same few principles. A prize medallist of the R.A.I. argued (with the reversal to muzzle-loading artillery in mind) that:

Our small campaigns, always successful, are the worst possible experiences for us. They even do positive harm, by making us think we have reached a high pitch of military excellence, when as a matter of fact, we are far from it.

C.B. Mayne, author of the text book for infantry officer examinations, likewise insisted that Britain's colonial wars had reinforced her tendency to lag behind the other great powers. Col. W.H. James, whose Modern Strategy was a standard work, concurred. Particular mention should be made of the rigid formalism of Sir Edward Hamley's Operations of War, a Staff College text throughout the period. It is significant that the most famous single work of military theory in Victorian Britain should have had almost nothing to say about the immediate problems facing her army.

24. Pref. to Reflections on the Art of War (Lond. 1903, first pub. 1894).


27. Professor Jay Luvaas has said all that is needed on Hamley in The Education of an Army (Lond. 1965), 130-68.
The Traditional School

Opposition to short service and the linked battalion system has been discussed by other historians and is illustrated in the subsequent analysis of mobilisation schemes. This brief survey is intended to convey something of the frame of mind in which the traditional school mounted its defence of the old ways.

Short service was introduced in 1870, battalions were linked in 1873, and territorial districts established in 1881. On these mainstays of the Cardwell system turned the criticism of its opponents. As the evidence laid before the Wantage enquiry showed, the new organisation found some of its severest critics amongst regimental officers. That this should have been so is explicable in practical as well as sentimental terms. The linked battalion arrangement turned the home forces into a vast nursery for the overseas battalions, and the labours of regimental officers into the work of Sisyphus. As soon as they had moulded recruits into soldiers fit for war, the home trainers had to relinquish the fruits of their labours to the colonies or India. Domestic training resembled a treadmill, and was cordially detested by most officers involved in it.

During the 1870s, two military journals emerged as the public voice of the traditional school: the United Service Magazine and the Army and Navy Magazine. The journal of the R.U.S.I., the most important military periodical of Victorian Britain, had such an eclectic range of contributors that it is hard to discern any dominant group. Nevertheless, it gave little room to animadversions on the Cardwell


29. Report of the Committee appointed to consider the Terms and Conditions of Service in the Army P.P. (C.6582, 1892), 19.
system and much space to the latest technological and organisational ideas. This was in definite contrast to the *United Service Magazine* during the 1870s and 1880s. It may be surmised that because its contributors rarely signed their names extra scope was given for personal opinion; R.U.S.I. articles were never anonymous. These early attacks upon the new system were marked by an absorption with regimental interior economy and the details of training. Little appreciation of imperial needs existed. Egregious errors as to how the system actually worked abounded, lending support to Wolseley's judgement that the new organisation was very "little understood even by Officers of the Army."  

One of the few writers who revealed his identity in the *United Service Magazine* was Colonel W.W. Knollys (to be distinguished from the reformer Colonel Henry Knollys). W.W. Knollys constituted himself a major voice of the old school for the journal and revelled in continual attacks upon Wolseley and his professional associates. In 1885 he mused upon the near collapse of the army because of the work of Cardwell:

> We are inclined to think that the evil is not past remedy, that it is not too late to partially undo the mischief of the last few years, but with Lord Wolseley in power at the War Office, we fear that there is no chance of a frank retracing of the false road pursued.  

Others wrote in a similar vein. Reformers were accused of making the British army a bad imitation of continental models.  

30. Ibid, minutes of evidence, 151.  
32. Anon, "The New Organisation of the British Army. By one who served for thirty years in the same regiment from ensign to colonel", ibid, (1881), pt. 1, 436-41.
during the Zulu war of 1879-80 or the first South African war of 1881 were, of course, attributed to the lack of seasoned soldiers in the ranks.\(^{33}\) The days of long service were seen through a haze of nostalgia; morale, one commentator felt, was disintegrating:

Not many years ago, when an officer approached any assemblage of soldiers, every man, if sitting, rose, stood steadily at attention, uttering no sound, and remaining thus until that officer had passed out of earshot. Nowadays, and under like circumstances, the men just lounge up with an effort, stand with their arms dangling well to the front, and grunt or make audible remarks about him, lolloping into an attitude of rest before he has passed them ... Any sergeant, any good soldier of ten years service or more will unhesitatingly tell you that his average comrade of today is neither so honest nor as manly as his predecessor.\(^{34}\)

Writers in the *Army and Navy Magazine*, the first volume of which was suitably adorned with a portrait of the Duke of Cambridge, indulged in comparable rhetoric. Aspersions were cast upon the courage of the short service soldier, and Wolseley and all his works were held to account for the tragedy of Majuba.\(^{35}\) Various commentators repined


\(^{34}\) Anon, "Short Service Discipline", *ibid.*, (1888), pt. 1, 393, 403.

\(^{35}\) "Service Gossip", *Army and Navy Magazine* 1 (Nov. 1880-April 1881), 95; Gilbert Pickering, "Sir George Colley and the Intelligence Department", *ibid.*, 673-89.
at the sight of "raw, beardless boys to be seen staggering under their rifles", dismissed the localisation scheme as laughable, accused Wolseley of having devoted his life to the abuse of his own service, and declared every regiment to be "groaning and writhing under the wounds which had been inflicted upon it by the new organisation."

There is little point in multiplying examples of an unvarying outlook; one lengthy but entertaining quotation may speak for all:

A Military Catechism for 1884

Q. What is your regiment?
A. The 2nd. Battalion of the Royal South-West Middlesex (Wolseley's own Weterans) Light Infantry Regiment.
Q. Have you always been in that regiment?
A. No; before the British Army was transferred from the service of the Queen to that of the House of Commons, I served in the glorious old 150th. Foot.
Q. What is the Mutual Admiration Society?
A. A small number of persons of the Staff who have obtained rapid promotion by persistently blowing their own trumpets, and knowing nothing about their own or anyone else's regiment, and who abuse all offenders who do not think as they do; but their chief point is to unite at all times in belauding the Founder of the Society especially, and each other in particular.

Q. Perhaps things may improve?

A. Never, until political officers are stamped out of the army, and the Commander-in-Chief is again allowed to command it ... and until the army is again the Queen's and not that of the House of Commons ... Never - until ludicrous titles to regiments, competitive examinations, and short service are abolished.37

Christian himself could hardly have bettered such faith in the old certainties. For the traditional school, as William Butler pointed out, the short service soldier had become the universal scapegoat.38 Their opinions found support in high places. Although Sir Henry Ponsonby declared himself a fervent admirer of Cardwell, the Queen's opposition to the new order of things was intense.39 As professional head of the army, the Duke of Cambridge found it inadvisable to oppose government policy publicly, although he did inform the Wantage committee that he had never been a "great advocate" of short service.40 But there was as little doubt as to his true sentiments towards this as to most other reforms of the period. Wolseley recorded a long conversation with him during the vital time when the system was being tested by two wars, the Zulu war and the Afghan. In Wolseley's colourful version of events, Cambridge launched into a long tirade.

37. Ibid., 8 (May-Oct. 1884), 140-144 (excerpts only). Cambridge was not entitled C.-in-C. until 1887. The "mutual admiration society" is the Wolseley ring.


against the short service system and the state of the army until obliged
to pause for want of breath. Wolseley then felt compelled to express
views which would, he wrote delightedly, "stink in royal nostrils".
He assured the Duke that tampering with the reserve would cause
national downfall and doubtless precipitate revolution:

... for a moment he was dumb, evidently lost in horror at the
very dream of an angry mob, crying for his blood, or at the
horrible spectacle that his great body would present if hung
from a lamp-post. What I said made an impression on him for
a moment; but I knew it would be of only momentary influence

... I have long put him down in my mind as past cure, and
have long felt with those of the Young Army School that we
can never hope to have an efficient army until he is either
gathered into Abraham's bosom or retires into private life ...

The Imperial School

Reformers who identified themselves with the basic principles of
the Cardwell system were in a somewhat anomalous position during the
late nineteenth century. On the one hand short service was primarily
a continental import, although the greater length of the British
soldier's contract and the freedom of the reserve from training were
important modifications. On the other hand, the salient feature of
this school was their preoccupation with organisation and training for

41. "South African Journal 1879-80", entry 8 June 1879, interview 23 May,
W.O. 147/7. A good example of Wolseley's ironic sense of humour, often
underestimated by historians who have written on him. Another distinctive
example of the old school was Viscount Chelmsford, a conservative on every-
thing from tactics upwards. He advocated an unqualified return to long
service and confessed that the loss of regimental numbers to regiments
filled him with "dislike and dread". "Discussion on Sir E. Warde's
lecture, and on Recruiting, which formed the subject of the Essays written
for the Gold Medal", J.R.U.S.I. 19 (1875), 156; Hansard, 3rd. series,
260 (5 April 1883), col. 702.
imperial warfare. They were therefore assailed by their critics on two counts; for upholding a system based upon foreign principles unsuited to British needs or sentiments, or for deluding themselves that the army's chief role was one of imperial defence. Nevertheless, the imperial school insisted that their position was a coherent one. Their viewpoint was distinguished by some change over time. First, after sharing in the initially universal wave of admiration for the Prussian achievement, they developed a critical and selective attitude towards continental models. This was certainly not a rejection of the importance of foreign examples, but a careful examination of them in order to discern what was, and what was not, applicable to Britain. Secondly, the imperial school espoused a doctrine of the army's role which stated that this was chiefly imperial policing and home defence, and that action on the European mainland was a remote contingency and would at most involve limited aid to an ally. Some of the British school, notably Wolseley, did not assume even the last qualification. As a corollary to this presupposition, they set high store by the lessons to be derived from small wars. Thirdly and generally, they were progressive, particularly with respect to officer education and technological innovations. As Wolseley remarked typically, "I confess I am one of those who believe in novelties ...".42

Explicit statements on the role of the army before the 1880s were rare, and authoritative guidance on the matter non-existent. It is not, however, quite accurate to say that the question was ignored during the first years of the period, and, as Dr. Hew Strachan has

shown, the concept of a British way in warfare had been formulated as early as 1854.43

Writing to the Times in 1871, Earl Russell appealed for a definition of the reasons for which Britain maintained an army and navy. His own opinion was that they had a fourfold function: to protect her dependencies and colonies (the notion of colonial self-defence being as yet in its infancy); to maintain national honour; to uphold engagements with foreign powers (therefore to defend Belgian neutrality); and to secure the United Kingdom against invasion. The penultimate provision begged the question of what engagements should be entered into and was, in the immediate context, an academic one. In 1871 and at least until 1878, both major parties accepted that Britain should avoid formal alliances in the continental style.44 With Russell's vague summary obscure, writers agreed, though, like him, their chief concern was to publicise the need for an authoritative stand on the issue.45

Others, with more assurance, confidently supposed that the British army would never again be called upon to intervene in Europe. Major Arthur Griffiths, in his standard survey of British military


institutions, considered that the army should function abroad purely as an imperial police force, and at home as a nursery to the overseas battalions and to the reserve. Some writers clearly anticipated the blue water school of the 1890s and early 1900s by regarding the army as a projectile to be fired by the navy anywhere in the world. In a work of didactic fiction, first published in *Blackwood's Edinburgh Magazine* and then in standard three-decker form, Sir George Chesney entered a plea through his protagonist for the policy makers to define the nation's military liabilities. Once they had been laid down (his hero emphasized before a rapt House of Commons) an effective overall organisation could be framed. George Chesney was one of the earliest and most explicit proponents of an "English" school of military thought, envisaging a small, highly professional army which should be excellent on its own terms and not in direct competition with its foreign counterparts. Speaking to similar effect after a lecture by Chesney's relative C.C. Chesney, the artillery reformer Earlley-Wilmot pleaded for a new departure in British military thought:

> If we want to make any military change, we go to Prussia or France, or some other place, for our models, and we never had


a man rise amongst us to take into consideration the peculiar features of our country, our national character, constitution, and requirements, and cause our army and national defence to rest upon one basis (applause). 49

Most of these statements were made by influential individuals. Russell, of course, was a leading mid-Victorian statesman and a former prime minister. 50 Eardley-Wilmot was a distinguished artillerist. 51 The R.A.I. to which he spoke boasted 1385 members in May 1871, many of whom presumably read its proceedings. 52 Chesney was a famous soldier and gave his name to the chief honour which the R.U.S.I. still bestows; the Chesney Gold Medal. It may be inferred that a good market was anticipated for his propagandist fable if it warranted publication in book-form. Arthur Griffith’s anatomy of British military power held the field between C.M. Clode’s (far more erudite) The Military Forces of the Crown (1869) and The Army Book for the British Empire (1893). Moreover, such books are like dictionaries; designed to be descriptive, they tend to become prescriptive.

Despite appeals for its definition, official attention to the role of the army remained minimal until the mid-1880s. Well before that


50. John, First Earl Russell (1792-1878); Whig M.P. 1813-61, and, inter alia, P.M. 1846-52, 1865-66.


time, the British school had developed a critical attitude towards the continent which had implications for the role of the army even if they were not spelt out. Those who assessed foreign models for their relevance were at least aware that differences in styles of warfare must be allowed for. This outlook gave a direct impulse to proposed reforms which should equip the British army for imperial warfare as well as European. There was much sympathy for those who reacted against what Henry Rime perhaps unfairly called "the comedy of imitation".\(^\text{53}\)

Thus, the artillery reformer Lieut.-Colonel F. Young raised cheers in the R.A.I. by criticizing Colonel Charles Brackenbury (the elder brother of Henry) for excessive advocacy of German practices.\(^\text{54}\) Another gunner of note, W.S. Wolfe, called for an end to the "pernicious system of always crying down our own army to the extolling of other nationalities ...".\(^\text{55}\) The author of a Royal Engineer prize essay in 1877 pointed out that an uncritical acceptance of the Germans as a model would be to ignore Britain's imperial position and to assume that her military role would be a European one. This supposition, he wrote, "would be an extremely presumptuous one".\(^\text{56}\) Britain must, Henry Brackenbury wrote in 1869, build up her own military literature and no longer draw from the "poisonous wells of

By the 1880s, such sentiments were commonplace. Colonel George Armand Purse, the army's chief authority on logistics during the late nineteenth century, summed up the nice balance of attention to, and detachment from, continental examples which the reformers of the British school sought to achieve:

Though we should look on our minor wars as the rule, and on the others as the exception, we should guard from concentrating our attention entirely on the first, for the latter are those which indicate the great principles of the art of war. We should study these principles, and, notwithstanding the exceptional circumstances of our petty contests, we should endeavour to let them (the principles) form the basis for our arrangements in any war.

That such a warning was indeed required in 1894 shows how far attitudes had changed from those of twenty-five years previously.

Some general reflections upon the rhetorical style of the chief military theorists of the period may be made before the precise organisation for war is considered. In the works of writers such as J.F. Maurice, G.F.R. Henderson, or Spenser Wilkinson, one finds repeatedly an impatience with the time-honoured abstractions of military theory. The practical bent of their writing seems to have

57. "Influence of Modern Improvements upon Strategy", Saint Paul's Magazine 3 (Oct. 1868-March 1869), 713. For Brackenbury's links with this periodical, edited by Anthony Trollope, see Brackenbury's Some Memories of My Spare Time (Lond. 1909), 48-49. With the reformer's enthusiasm, he surely underestimated the bulk and quality of earlier military writings.

58. The Organization and Administration of the Lines of Communication in War (Lond. 1894), 20.
been akin to the imperial view of army organisation and training. All the major writers of this school were marked by a certain tough-minded empiricism, confidence that Britain could find her own answers to her own military problems outside the mainstream of continental theory. All were practical reformers, concerned to anchor their hypotheses in the real issues of the day. Similarly, they were either sceptical of the existence of immutable "principles of War" or doubtful of their value to the military student. While most minor writers accepted that these laws existed and provided the key to understand all operations of war, more original thinkers adopted a different view.

Maurice argued that history was worthless unless it placed the reader in the position of those whom he was studying. Abstract lessons and laws were useful only insofar as they were immanent in past situations. 59 Henderson believed that the art of war could be reduced to a few great principles, but stressed that they were beneficial only when embedded in an analytical narrative. At each stage of this the reader was to work out for himself the problems facing the protagonists and appreciate the motives for their decisions. 60 Henderson's own celebrated life of Stonewall Jackson exemplified this style of narrative. From the present perspective, his historiography seems dated; he assumed complete objectivity and

59. Lieut.-Col. Sir Frederick Maurice, Sir Frederick Maurice: A Record of his Life and Opinions (Lond. 1913), 121-22 (a collection of essays edited by Maurice's equally distinguished son Frederick). Some fascinating remarks by J.F. Maurice on the purpose of official histories will be found in his "Critics and Campaigns", Fortnightly Review 44 nos. (July-Dec. 1888), 112-14.

expected history to produce applicable lessons. In 1898 his approach was indeed novel. One situation after another unfolded as Stonewall Jackson was presumed to have seen it, and every principle of his operations was extrapolated from a precise circumstance. As the author pithily summed up the whole matter:

The rules of strategy are few and simple. They may be learned in a week. They may be taught by familiar illustrations or a dozen diagrams. But such knowledge will no more teach a man to lead an army like Napoleon than a knowledge of grammar will teach him to write like Gibbon.

Spenser Wilkinson made the identical point:

General principles because of their simplicity and generality are aids to the understanding; but the difficulties of practical life are specific; a general principle seldom helps us to solve them, for it has been reached by the elimination of all those particular features which make each individual case what it is.

61. Stonewall Jackson and the American Civil War (2 vols. Lond. 1898), passim, espec. I, 500, 509, II, 242. The rules of war were, according to Henderson:

Concentration of superior force, moral and physical, at the decisive point is the grand rule of war.
Simplicity is better than ingenuity.
Complicated operations are very dangerous.
Try to realise the situation from the enemy's point of view.
Always endeavour to mystify and mislead.
Surprise is the greatest of all foes.
Omit no precaution to conceal your own dispositions.
Attack when and where you are least expected.


63. The Great Alternative A Plea for a National Policy (Lond. 1894), 6; and likewise The Nation's Servants Three Essays on the Education of Officers (Lond. 1916), 273 ("There is no such thing as war in the abstract; there are only wars, and no two of them are alike.").
Such military commentators had a very modern view of theory as something not divorced from reality but a means of grappling with it. Theory was significant only within particular historical situations, but, taught in this way, was indispensable. Maurice, arguing to this effect before the Irish Military Society, found support from Wolseley, who criticised the British tendency to consider an ounce of experience to be worth a bushel of theory. That assumption, Wolseley remarked crisply, was itself a "bushel of nonsense, because it is in itself a theory, and not a very reliable one either in our science". Similarly, Maurice wrote in his brilliant essay *War*:

> It must be emphatically asserted that there does not exist, never has existed, and never, except by pedants, of whom the most careful students of war are more impatient than other soldiers, has there ever been supposed to exist "an art of war" which was something other than the resultant of accumulated military experience.

These distinguished writers spelt out the attitude implicit in the British school of reformers. In terms of their devotion to military study, they were no less "scientific", to use the favourite contemporary term, than those we have described as continentalist. Both groups would have agreed with the dictum of Lieutenant-General Sir William Butler: "The nation that will insist upon drawing a


broad line of demarcation between the fighting man and the thinking man is liable to find its fighting done by fools and its thinking by cowards.66 But if we judge the two schools by their relative influence upon practical reform, they were very different. Their disparity clearly emerges when the record of what was said is compared with the evidence of what was done.

66. Butler, Charles George Gordon (Lond. 1907), 85.
CHAPTER 2.

The Rise of Mobilisation Schemes.
By the early seventies it was generally appreciated that the secret of Prussia's success had been organisation rather than her army's tactics or armaments. In the current British mood, organisation became the key word of army reform. Cardwell himself was pre-eminent amongst those who stressed the need for a general scheme of reform which should embrace defence requirements at home and abroad. Writing to Gladstone in 1869, Cardwell set out the principles of such a scheme. The colonies were to assume responsibility for their own defence, the militia were to be taken from the lords lieutenant of the counties and placed under the War Office, and a single plan for home defence was to be formulated.\(^1\) That all these aims were substantially achieved testifies to Cardwell's breadth of vision and energy of purpose.

In domestic planning for war, the scheme that was framed in 1873 largely held the field until the South African war rendered its transformation imperative. Developments after 1873 were grafted onto the basic structure which emerged from the prolonged enquiry under Major-General P.L. MacDougall.\(^2\) A central conception of his localisation committee was to unify the land forces of the crown in a scheme which should allow equal play to the needs of home defence and the demands of a major war. To this end the committee charted the first standing plan for mobilisation in British history. The final localisation scheme arranged the infantry into 66 sub-districts, the artillery into 12 sub-districts, and the cavalry into two great districts; in

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effect there was no localisation for that arm. In accord with these provisions, the committee's mobilisation plan was sketched out in the following fashion. When both battalions of a sub-district were abroad, the auxiliary forces were to be embodied in order to secure home defence. In their model scheme, the committee envisaged 50 battalions being sent to the scene of action. Each of the districts thus left destitute of regular battalions was to have both its militia battalions called up, and every depot in the United Kingdom was to be expanded to a full battalion to provide an increased flow of recruits to the theatre of war. Infantry units were to be arranged in readiness for war according to their establishments. In peacetime 18 battalions were to be kept at 820 rank and file, 18 at 700, and 35 at 520. Some allowance in the plan for war was made for the vital difference between British and continental localisation. In Germany and France, recruiting and military districts were identical. The freedom of the body of the army from overseas service permitted individual units to maintain permanent links with certain zones in the national mobilisation scheme. In Britain, where a man served bore no relation to his place of origin. Furthermore, the actual identity of units failed to coincide in Britain with military


districts. The place of any one unit in the defensive scheme depended upon where it was located at any time, not upon what unit it was. Accordingly, the localisation committee recommended that any district could supply recruits to any unit abroad in time of war.\(^5\)

The shortcomings of the plan are immediately obvious. It made no attempt to grapple with the style of warfare which was becoming characteristic of the British army's operations. The measures to be taken in the event of a major war were the barest outline of a mobilisation scheme. There was no pretence at assessing the requirements of supply and transport or even of troops needed for the line of communications. Implicit in the linked battalion system was the oft-criticised supposition that the army was to provide for only two contingencies; the status quo and the grand emergency. It seems to be equally clear that, with Cardwell struggling for acceptance of his basic principles, to have tried to do more in 1873 would have been courting failure. At least the outline showed some concern for the army's expeditionary role, and MacDougall later claimed that his establishments proposal had been made with small wars in mind.\(^6\) Judged as a scheme for mobilisation, the plan was merely a paper sketch, giving the illusion of an organisation without actually creating one.

It was rendered completely academic by the failure to maintain an equality between the battalions abroad and at home. The reservoir of men was thus too small for the outflow, and the drain upon

the home battalions sabotaged the establishment's device. When Cardwell left office, only three of the home battalions were on the high establishment, and all save seven of the remainder were on the lowest of 520. In 1892, eight were on the high establishment and the remaining fifty-seven on 741 rank and file.\(^7\) The only way to have solved the imbalance of battalions would have been to increase the army, and this was made impossible by the constraints of economy and the exigencies of the recruiting market. It was plainly unrealistic to call upon the militia in peacetime, despite their theoretical liability to compulsory service.\(^8\) All subsequent planning for war, therefore, had to take account of this apparently insoluble defect of the Cardwell system.

During Gathorne Hardy's tenure of office a further hesitant step was taken towards a real mobilisation scheme. In the Army List of 1875, a blueprint was published in which the home forces were divided into eight army corps, and a full list was provided of the locations to which each unit was to repair upon declaration of war.\(^9\) In this alone lay the value of the scheme. Otherwise, it was a confession of weakness. The first corps alone was composed wholly of regular troops. The next four were formed of regular and auxiliary,

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Gathorne Hardy, (Lord Cranbrook from 1878), S. of S. for War, Feb. 1874–April 1878.
and the last three of auxiliary troops only, save for divisional units. None except the first corps had a full complement of engineers, and only the first two had their requisite artillery. No ammunition trains existed at all. As for the other services, asterisks indicating their absence occurred more frequently than not. Nevertheless, the very composition of such a scheme showed how deeply reformers in the 1870s were influenced by continental models. Britain must have her army corps like the other great powers, even if it was the name without the substance. Similarly, the scheme indicated how unhelpful it was to apply foreign models directly to British circumstances. Mobilisation in Victorian Britain on the scale of eight corps could never be more than the paper plan worthy of the criticism, indeed contempt, which it received.

John Holms, an M.P. who took an amateur interest in military affairs and admired continental institutions, described the new plan as one that "fell little short of the grotesque ...". Captain Nolan academically stressed that the scheme departed excessively from the foreign models from which it derived. W.W. Knollys regarded it as a futile exercise for a power such as Britain to undertake. Sir George Chesney, although he saluted the scheme as a step in army reform of first importance, acknowledged that, being a purely defensive arrangement, it left the army as "immobilised" as ever.

10. Hansard, 3rd. series, 230 (23 June 1876), col. 369, and see his The British Army in 1875 (Lond. 1876).
In answer to such attacks, Frederick Stanley, the Financial Secretary, argued that the purpose of the scheme had been generally misapprehended. His critics had mistakenly assumed that Britain's mobilisation plans should rival in comprehensiveness those of Germany and France. Complacently, he regarded the war plan as it stood as a satisfactory application of modern principles of organisation to domestic conditions, insisting that:

Many of the so-called points of weakness in the scheme were deliberate departures from the rules which had guided the formation of large armies in foreign countries, and were intelligent applications of the same principles to the different circumstances under which we lived ... It was wholly in its nature a defensive scheme, and on its merits and demerits as a defensive scheme he was prepared to meet any arguments that might be deduced. 14

The only occasion on which the scheme was slightly tested occurred in 1876, when a partial mobilisation of two army corps took place; that is to say, two corps (the second and the fifth of the scheme) were simply assembled at one location. 15 But at least, as Captain John

14. *Hansard*, op. cit., cols. 373-74. One radical, Sir William Harcourt, who was suspicious of this new term in parliamentary legislation, moved Stanley to ponderous irony:

... although it ought to be pretty well known by this time what an Army corps was, he was willing to gratify the thirst of the hon. and learned Gentleman opposite for all kinds of military knowledge. It consisted of the three arms of the Service — namely, the Infantry, the Cavalry, and the Artillery combined. It was divided into divisions and brigades, the latter consisting of two or more regiments. He trusted that this information, and the assistance derivable from The Army List published since last December, would enable his hon. and learned Friend to approach the subject with more information than he had hitherto displayed to the House.

(Hansard, 3rd series, 229 (12 June 1876), col. 1752).

Colomb pointed out, the concept of mobilisation was no longer alien to
British military thinking. "The word "Mobilization"", he wrote, "has
worked its way into common use in this country by the sheer force – so
to speak – of its indisputable ability to express something which no
word of English origin could describe ..." \(^\text{16}\) With all its faults,
and for the lack of a better, the mobilisation plan of 1876 was pub-
lished year by year in the Army List until 1881.

During this time and until the 1890s, the Cardwell system was
subjected to an increasing volume of criticism. Its supporters and
opponents alike agreed that, as conducted, it was sadly deficient.
The great divide of opinion was as to whether the remedy for its
defects lay within the system itself or in its abandonment. Closely
connected with this debate was the work of a few reformers in key
positions to provide what the Cardwell system so manifestly lacked;
arrangements for expeditions on a scale suited to current requirements.

Every colonial campaign of the period which required reinforce-
ments from home caused upheaval in the roster for overseas service and
the fragmentation of certain units. For the Ashanti war of 1873-74,
which required only three British battalions, transfers from the 79th.
battalion were needed to bring the 42nd. up to strength for the
expedition. \(^\text{17}\) Each battalion ordered to South Africa in 1879 was
completed to war strength by calling upon volunteers from units


17. Hansard, 3rd. series, 224 (51 May 1875), col. 1113. The 79th.
and 42nd. did, however, belong to the same sub-district. Report of
Committee on the Formation of Territorial Regiments, appendix IV, 26.
P.P. (C. 2793, 1881), 20.
further down the roster.\textsuperscript{18} The 21st, indeed, had to leave behind nearly half of its 800 rank and file as insufficiently matured for war service and to fill their places with drafts from a number of other regiments. A similar number of men were left at home by the 91st., which was replenished from eleven different regiments.\textsuperscript{19} During the Egyptian campaign of 1882 the same problem recurred. Unable to declare a national emergency, the authorities were obliged to make up the necessary establishments by calling upon volunteers from the reserve. Those who answered the call did so of their own volition; they had no obligation to respond.\textsuperscript{20} Colonial campaigns abound with examples of the curious makeshifts whereby the special provisions of small wars were met. A camel battery for the Nile expedition of 1884-85 was formed of men drawn from the garrison artillery at Cairo.\textsuperscript{21} Sir Edward May later recounted his irritation when, in 1882, he was forced to surrender the horses and harness of his Royal Horse artillery battery in order to equip one en route to Egypt.\textsuperscript{22} For every battery sent abroad, another was rendered immobile at home. So long as the reserve was excluded from all but major wars and high establishments for battalions first for foreign

18. Minute by the A.G., Gen. Sir Charles Ellice (3 April 1880), W.O. 33/35.


service were not maintained, British expeditionary forces were obliged to be "scratch packs swept together from all directions, with huntsmen knowing nothing of their horses, their hounds, or their whips".  

The nature of traditionalist attacks upon the linked-battalion system has been touched upon above. The critics also included a group led by Sir Charles Dilke and Sir Frederick Roberts, who, although the reverse of conservative, advocated a drastic change in the Cardwell organisation. This body of opinion may be conveniently considered first and, on account of the notice it has received from other historians, with brevity.

Roberts assumed the role of public critic of the horse army in 1881, when he was fresh from India with a successful campaign enhancing his reputation. Speaking at the Mansion House in Whitehall, he launched an attack upon the short service system and reinforced his speech with a persuasively argued article in the Nineteenth Century. His basic proposal was to form a dual army, its long service portion to be for Indian and colonial defence, its short service for home defence. All recruits should be initially contracted for three years. After this period they could either pass out of the army or contract for twelve years and, eventually, for a lifetime in the army if they so wished it. Roberts had every reason to be concerned with the problems of the Cardwell system, but his suggestions hardly contained their


potential solution. He assumed that to offer a choice between long and short service would dissipate the recruiting problem; there were certainly no grounds for such an assumption and good evidence from long service days to show that under such an arrangement it would be extremely difficult to get men for duty abroad. Reintroduction of long service would have struck a disastrous blow at the reserve. Roberts indeed anticipated this criticism and composed actuarial calculations to prove that his suggestions posed no threat to the reserve. The fact that his arithmetics were based upon the premise that the yearly intake of recruits under his terms would be thrice that of a full short service system robbed his arguments of reality.26 Moreover, his proposals would have caused a drastic increase to the rate of invaliding and mortality. The risk of death or serious disease rose dramatically in the later years of a soldier's Indian service.27 Nonetheless, the idea of two armies seemed to offer a feasible alternative to the current organisation and was especially attractive in that it reflected a deep concern with imperial defence. This was spelt out by Roberts in 1891. It was clear, he wrote of the existing arrangements:

... that the system is one extremely ill-adapted to meet the continually varying requirements of the British Empire. That Empire is so extensive, and is coterminous at so many points with semi-civilised countries, that hardly a year passes without some portion of the Army being engaged in hostilities,


or being called upon to occupy fresh territory. In conducting these minor military operations reinforcements from England are occasionally indispensable, and it follows therefore that a balance between battalions at home and abroad cannot be maintained ... 28

Thus, organisational criticisms could be reinforced by strategical arguments. Roberts' dissatisfaction with the current system stemmed in large part from its failure to provide for assistance to India in the event of hostilities with Russia. Accordingly, well after Edward Stanhope's authoritative pronouncement on the army's role, Roberts was complaining that it had been inadequately defined. 29

In varying forms, the idea of a dual army gained wide currency. Spenser Wilkinson, one of Roberts' most enthusiastic and vocal disciples, embraced the concept in the famous study of imperial defence he co-authored with Sir Charles Dilke. 30 Dilke himself was


29. "A review of the evidence given before Lord Wantage's Committee ..." (1 Sept. 1891), 43-44, W.O. 33/52, and "Notes on Army Organisation", enclosed in Roberts to Spenser Wilkinson, 27 April 1891, Spenser Wilkinson Papers, 13/14 f.3. To the question of reinforcements for India Henry Brackenbury turned once he had completed his great work on home mobilisation, and became converted to the view that the Indian army, having acted so often as the imperial fire brigade, in turn should be reinforced in an emergency. Adrian Preston, "Wolseley, the Khartoum Relief Expedition, and the Defence of India, 1885-1900", Journal of Imperial and Commonwealth History 6 (May 1978), 273-74; "Memorandum by Lieutenaut-General Brackenbury Director of Military Intelligence ..." (1889), W.O. 33/49; Fleetwood Wilson (Stanhope's private secretary) to Col. J.C. Ardagh, 15 Aug. 1889, Ardagh Papers, P.R.O. 30/40/13.

30. Imperial Defence (Lond. 1897), 142-158.
preoccupied with Indian defence, and dismissed all supposition that Britain might have even a limited military role in Europe as chimerical.\textsuperscript{31} The royal Duke of Connaught sided tentatively with Roberts.\textsuperscript{32} Sir William Gosset, Viscount Chelmsford's military secretary during the Zulu war and Sir George Trevelyan, formerly in Gladstone's cabinet, argued on identical lines to Dilke.\textsuperscript{33} Other less well-known commentators echoed these views.\textsuperscript{34} By the 1890s, therefore, the debate over army organisation had become complicated by a most interesting development. The situation was becoming less and less one of a simple contrast between traditionalists and the "young army school" to which Wolseley referred so often in his autobiography.\textsuperscript{35} Two equally progressive groups were proposing solutions to current problems based upon differing interpretations of the needs of imperial defence. The voice of the traditional school, with its assaults upon the Cardwell system, was becoming rarely heard and then without its old vehemence.\textsuperscript{36} Those who have been distinguished as

\textsuperscript{31} The British Army (Lond. 1888), 4-5


\textsuperscript{33} Ibid, 139; Hansard, 3rd. series, 333 (11 March 1889), cols. 1435-37. Gosset arranged Chelmsford's private papers, somewhat obtrusively.


\textsuperscript{35} The Story of a Soldier's Life (Westminster 1903), II, 226-56.

continentalists showed, at least in their professional capacity, a curious oblivion to broad questions of national defence altogether.

There was no lack of response to these critics. The cornerstone of the various apologies advanced was that, as Bernard Shaw was to remark mockingly of Christianity, the Cardwell system did not work because it had never been properly tried. Political inertia and the drag of the old school ensured that the size of the army was not adjusted to its growing imperial responsibilities. Accordingly, the draft system was continually distorted and the efficiency of the home battalions undermined. It is not easy to assess the force of the apologists' case. It has carried conviction with at least one historian. But the work of Dr. Skelley suggests that even had the prescription of the Cardwellites been followed to the letter, the recruiting problem would have proved the stumbling block to all their good intentions. Nonetheless, their diligence in seeking to answer the needs of imperial defence within the existing system was not destitute of results.

From the first, Wolseley and his closest associates were identified in the public mind with Cardwell's reforms, and Wolseley's friend and disciple, J.F. Maurice, proved one of their most eloquent defenders. Reviewing in the Quarterly of 1892 the reforms of the previous twenty years, he lamented that their initial implementation had been entrusted to those who deeply opposed them. The reformers could introduce changes, but traditionalists could prevent them being properly carried out:

It was an attempt to pour new wine into old bottles, and it met with the usual fate of that experiment. It was not

possible to select as the generals commanding districts, or as the lieutenant-colonels commanding battalions, men who would infuse the new ideas among their subordinates, for the head of the Army avowed his disapproval of the ideas themselves, and, wherever possible, selected those who shared his own opinions and sentiments.  

Likewise, Wolseley insisted that the Cardwell system was faulty not in conception but in administration. Every small war provided him with the opportunity to eulogize the modern soldier. He wrote, for instance, with typical assurance of the Egyptian campaign: "I hope we have now silenced for ever all the old fogies who have for some years past talked so much nonsense about young soldiers and the iniquity of those who favoured Army Reform". General Sir John Adye used his great authority as a military administrator to argue, similarly, that the Cardwell system provided the framework for all other reforms of the late nineteenth century.

The Wantage enquiry gave the Cardwellites the opportunity for a concerted expression of their views. In testimony before this committee Wolseley indeed described the home battalions to be like


41. "Recruiting of the British Army: the Old Systems and the New", (Aug. 1880), W.O. 33/35; Recollections of a Military Life (Lond. 1898), Ch. 23, passim.
squeezed lemons, and his remarks have sometimes been taken to imply that he was questioning the principle of balanced battalions. Like most famous phrases which have passed into common parlance, this one was misquoted from the original. What Wolseley actually said was that, if the present imbalance of battalions persisted, "they (the home units) will be like a lemon when all the juice is squeezed out of it, they will be of little fighting use ...".\(^{42}\) Plainly, this was a criticism of the conduct of the system. Other notables who adopted this viewpoint included Redvers Buller, Henry Hallam Parr, and Evelyn Wood.\(^{43}\) Sir Patrick MacDougall represented the extreme of the defence, arguing that if his localisation reports had been followed in their entirety:

... neither Lord Airey's Committee nor that of Lord Wantage would ever have been assembled, since there would have been no failure or breakdown to inquire into, and all the fume and froth of the angry discussions that have since raged around the subject would have been avoided, as well as the labours of the many committees assembled in this much committee-ridden age and country.\(^{44}\)

Many of the apologists, indeed, refused to accept that "breakdown" was an accurate word to describe the difficulties through which the system was passing. Sir Arthur Haliburton (Assistant Under-Secretary 1891-95), in his lengthy and celebrated dissent from some of the

\(^{42}\) Report, op. cit., 154.

\(^{43}\) Ibid, 5-6 391, (Gen. Sir Redvers Buller), 56-64 (Col. H.H. Parr), 42 (Lieut-Gen. Sir H.E. Wood).

\(^{44}\) "The Inefficiency of the Army: A Reply", Blackwood's Edinburgh Magazine 152 (July-Dec. 1892), 268.
Wantage recommendations, argued that much of the obloquy heaped upon the system was excessive. Its severest critics could not deny its contributions to the mobilisation of manpower. The reserve had been called a paper army, a chimera which would not materialise when needed. From 1878 it became less easy to make this charge. In that year, during the Russian war scare, the entire reserve was mobilised. Only 470 failed to report themselves to the depots. There was a similar response when the whole of the reserve was called up in anticipation of the Egyptian expedition, and required in 1890-91 and 1891-92 to report for magazine rifle training. The reservists drawn upon for the test mobilisation of 1895 responded almost to a man, and the commanding officer spoke in glowing terms of their standards.

In parenthesis, it may be noticed that the Cardwellites often used rhetoric which contrasts strangely with the language employed by some historians to describe the military institutions of Victorian Britain. Henry Knollys, a minor military theorist and progressive tactician, was distressed at the way in which the British army was "constantly absurdly underrated in foreign countries and intermittently belittled in its own ...". In an interesting essay on the...
organisational demands of imperial expansion, Colonel J. Duncan lavished eulogies upon the current state of the army; it was, he wrote, elevated to a standard beyond that imagined by the "most sanguine army reformers ...". Others claimed that only the failure to expand the army in consonance with the empire stopped it from rivalling any army in the world in efficiency.

Even Ian Hamilton, hero worshipper of Lord Roberts, wrote in retrospect:

The British Empire has been raised to its present dizzy height by the profound imaginings of a mere handful of great men ... Cardwell was one of the great men; or, if not, at least he was greatly advised. Consider that exquisitely cunning device, that system of his, which guarantees the sovereign sheep against their sheepishness.

However chauvinistic the basis for such remarks, they reflect the growing sense of an insular and imperial tradition of army reform.

The clarity with which differing interpretations of the Cardwell system had emerged by the last decade of the century is shown in a series of prize essays published by the R.U.S.I. in 1893 on "The Military Organization Best Adapted to Imperial Needs". The winner of the first prize followed Roberts to the letter.


51. Col. Ian Hamilton, The Soul and Body of an Army (Lond. 1921), 4-5.

the second prize-winner, took the existing organisation as his text. Its main principles were, to his mind, harmonious with the character of British military liabilities. Like J.F. Maurice, Adye differed slightly from the Stanhope memorandum in believing that the army should be ready for continental action on a very limited scale. The third prizewinner concentrated upon the need to develop a striking force. Colonel Duncan, whose essay has been cited immediately above, wrote on similar lines to Adye, advocating also a national army for home defence in the style which was to be widely proposed after the South African war. None recommended a reversion to the old ways.

By the 1880s, therefore, reformers who espoused Cardwellian principles faced a problem which the years of debate had somewhat clarified. The short service and localisation system provided the framework for all other reforms. But it was apparent that, however admirable the basic conceptions of Cardwell and MacDougall, these alone could not supply the expeditionary potential needed for colonial campaigns, not to consider action on the continent. The plan of 1875 could only be regarded as a spur to further reform. For the administrators of the 1880s and 1890s, the task was to develop preparations for war comparable, on however limited a scale, to the mobilisation schemes of the continent, and yet to ensure the flexibility demanded by imperial warfare.

53. Essay by Maj. J. Adye (author of Soldiers and Others I have Known (Lond. 1925), and to be distinguished from Gen. Sir John Adye), J.R.U.S.I 37 (1893), 443-90; J.F. Maurice, The Balance of Military Power in Europe (Lond. 1888, first pub. Fortnightly Review). Maurice argued that if Britain were to form a limited military alliance with Germany, European peace would be ensured; the cheque signed by Britain would never be drawn.


55. Ibid, 713-33.
The first initiative to modify the mobilisation scheme of 1875 seems to have been taken by General Sir Charles Ellice, Adjutant General to the Forces 1876-82. Between 1877 and 1880 he composed a series of searching memoranda in which he analysed the recent performance of the Cardwell system in providing for small wars. Ellice's own opinion of the new reforms is not quite clear. That he opposed them on principle is not borne out by the sober and balanced arguments of his memoranda. He was certainly detested by Wolseley, who called him "a wretched devil of no origin & of no repute as a soldier, nor of any ability except as a courtier". But Wolseley felt antipathy towards so vast a number of people that this remark alone does not indicate much. Ellice did, however, sympathize with the proposals of the Airey committee to modify drastically the terms of short service. He may be regarded as a moderate critic of the system, but the chief concern of his memoranda was to draw attention to the need for an expeditionary element in the general organisation of the army.

The immediate outcome of the Adjutant General's initiative was the formation of an intra-War Office committee to investigate the specific subject of organisation for small wars. Their report abided by Cardwellian principles, and its strictures were directed at the authorities' failure to maintain the stipulated establishments. The


57. Minute of 3 April 1880, W.O. 33/35; Report of a Committee on Army Reorganisation P.P. (C.2791, 1881), 21.

58. Minute of 3 April, op. cit.; Minute of 25 June 1880; "Memorandum on the Working of the Double, or Linked Battalion System", (n.d. prob. 1880); Minute of 25 July 1877; Minute of 19 Jan. 1878. All W.O. 33/35. Ellice advocated the politically unacceptable measure of embodying the militia of a sub-district if both battalions should be abroad.
committee did not seem to consider that their brief included any matter beyond the rank and file available for expeditionary purposes. They contented themselves with recommending that the home battalions should be kept to a level such that in each battalion there would be at least 500 rank and file of 20 years old and upwards. This involved requesting, fruitlessly, that the infantry be increased by 10,000 men. 59

Wolseley's similar plea on the eve of the South African war was to be more successful. 60 At least the committee's report indicated that some Cardwellian reformers were willing to admit that the original scheme had been framed to meet a static situation and that some modification was imperative. Who wrote the Committee's report is not recorded in the official files, but an entry in Wolseley's private journals indicates that he was a leading member. 61

Thus far, all discussions of mobilisation, save those concerned with particular campaigns, had been preoccupied with numerical questions of personnel. When, in 1886, Henry Brackenbury addressed his remarkable mind to planning for war, material as well as men began to receive serious consideration. Hitherto, many reformers had seemed to think that readiness for war lay chiefly in having a sufficiency of men available for an emergency. It was Brackenbury's great virtue to persuade such of his colleagues as were amenable that,

59. "Draft report of a Committee assembled at the War Office ... to report on the effects of Short Service on the preparedness for War of the Army", (n.d.), W.O. 33/35 (1880).

60. Report of His Majesty's Commissioners Appointed to Inquire into the War in South Africa, appendix D, docs. 1-5. P.P. (C.1789, 1904), 40; Minutes of evidence, 523 (Lord Lansdowne). P.P. (C.1791, 1904) 41.

on the relevant scale, Britain could essay preparations for war qualitatively as comprehensive as those of Germany or any other great power.

Brackenbury was ideally suited to this task. Like Wolseley, he was a man of flair and imagination, responsive to every new wave of thought that stirred the military world. Unlike Wolseley, Brackenbury possessed the capacity for prolonged and exhaustive examination of abstruse and tedious subjects, as the records of his labours testify. Professionally, he bore marked similarities to Sir George Clarke, the future secretary of the Committee of Imperial Defence. Both devoted their early careers to a detailed study of their respective arms; Clarke's analysis of the battles of Plevna was a masterpiece of military erudition. Both then turned their attention to the broad issues of national defence and did their greatest work therein. They exemplified the new brand of bureaucratic soldiers, but were marked by a breadth of knowledge and analytical ability rare in any profession.

In 1886 Brackenbury, then Deputy Quartermaster-General, was ordered by Edward Stanhope to work

... out in detail the troops we should require for the reinforcements of our Colonial Garrisons & imperial fortresses abroad, (exclusive of India) in case of war with a great

62. Impressions of Brackenbury derived from his articles in the civilian and military press, his correspondence with Lord Roberts (National Army Museum), his memoirs, Some Memories of My Spare Time (Lond. 1909), as well as his official memoranda and evidence before parliamentary committees. Impressions of Clarke derived from his My Working Life (Lond. 1927), his Plevna (vol. 5 of the P.P.R.E.), and numerous references to him in John Gooch, The Plans of War (Lond. 1974), and Nicholas D'Oibrain, War Machinery and High Policy (O.U.P. 1973).
maritime power and for the defence of the fortresses & mercantile
seaports, at home ... 63

Thus commissioned, Brackenbury drew up a series of memoranda which
comprehensively surveyed Britain's military position. This was not
the first general survey in our period of the empire's military
liabilities and resources; the early seventies had produced scores
of such wide-ranging examinations. 64 Brackenbury's work seems to have
been unprecedented in dealing not only in general blueprints for reform,
but in a mass of precise information to support these. The data was
presented in such a fashion that it illuminated rather than obscured
the object of his exercise and the force of his conclusions.

His inquiries revealed that, after provision for defensive measures
necessary in case of a major emergency, there was virtually no field
army left. An interim report outlined the standing absolute deficien-
cies (that is, before mobilisation of a field army) and the still more
alarming gaps which would occur in the event of a major war. The con-
clusion which emerged was as follows. Once all regular, volunteer,
and militia artillery and engineers had been called upon, there were
deficiencies of fifteen garrison batteries and of forty-six R.E.
companies. Britain's home and overseas ports thus lacked proper
protection against full-scale attack. Insufficient numbers of
commissariat and ordnance store officers existed to supply the two
army corps of the proposed field force. This was so after every
station in the U.K. had been hypothetically depleted of the first

63. Brackenbury to Sir Frederick Roberts, 10 Aug. 1886. Roberts Papers,
National Army Museum, 7101-23, file 11; "Memorandum of the Secretary of
State relating to the Army Estimates", (27 Feb. 1887), 9. P.P. (C.4985,
1887), 50.

64. Dozens may be found in the unclassified series preserved in the
British Library as Tracts Relating to Military Affairs, 1870-75,
1870-72, 1864-1901, 1867-73, and 1879-81.
service and every out-station of the second. The medical staff corps and the veterinary department were in a similar position, and there was a deficiency of nearly 20,000 horses after every army horse at home had been allotted to the two corps. "I fear that when these troops are all told off, there will be no field army left!" Brackenbury wrote in alarm to Roberts. 65 This numerical analysis was accompanied by a strategical survey of the current military situation in Europe. Clearly, Brackenbury was ready to anticipate continental action on a limited scale, although the immediate threat to British security was taken, of course, to emanate from Russia. Brackenbury's chief concern was to show that any involvement in the affairs of the great powers would threaten imperial security. To produce an army corps, Britain's resources would be strained to the utmost, and her home stations would be stripped of their services and thrown into administrative confusion. The gravamen of his arguments was that Britain should seek to rival the foreign powers not in the scale of her mobilisation but in its readiness:

In every other civilized nation, the army is based upon the requirements of the nation in case of war, and the necessary war establishment being fixed, the peace establishment is deduced from it ... In this country there never has been, so far as can be traced, any attempt to settle what number of troops we require to place in the field in case of war with a great Power, exclusive of our necessary home and

Colonial garrisons ...

It is not under existing conditions that those who are behind the scenes can view with calm the possible alliance of France and Russia against England. How different our position would be, how easy our minds, were we conscious that we could place even two completely organized Army Corps, a force of 60,000 trained fighting troops, in line to oppose our enemies abroad or at home, in pursuance of a well-matured plan of offence or defence! 66

Unlike the compilers of the 1875 scheme, Brackenbury did not rest content with presenting a picture of the army's deficiencies. Having made clear his concern with grand strategy, he then left matters of policy altogether and sought to ascertain what could be achieved with the force actually available. In doing so he was fulfilling Stanhope's intentions. As the secretary of state made clear to the House, his first preoccupation was with what the army could do in the immediate future, rather than with what it might do in the remote contingency of war with a great power. 67 According to this brief and assisted by Ralph Knox, the Accountant-General, Brackenbury had completed by the end of 1886 a tri-partite report on army mobilisation. Two major features mark this document. First, while conceived on the basis of continental examples, the plans showed their authors' readiness at every hand to make concessions to the needs of an imperial power. On balance, Brackenbury and Knox evidently thought it desirable to bring Britain into line with Europe so far as imperial circumstances


would allow. Secondly, and what is most noticeable to a modern reader, these plans were drawn up in a strategic vacuum. Whatever Brackenbury's views on the policy which should be adopted towards Russian expansion, he allowed them no scope in the official report. The basic assumption was simply that Britain should be ready to mobilise a small expeditionary force in an emergency. Within these severe limitations, the mobilisation report was a milestone in British preparation for war.

The plans dealt purely with existing cadres and supposed no material increase in the establishments. Numerically, the three main services were in a relatively strong position, and Brackenbury therefore merely suggested minor alterations in the structure of units in order to bring them into conformity with their European counterparts. Thus, it was proposed that the battalions in a brigade would be increased from three to four, and that a rifle battalion be attached to the corps troops. Otherwise, only a little time was needed to bring the infantry into consonance with the two corps standard. In 1886, the reserve was sufficient to fill up to war strength the two corps and furnish the home and colonial fortress garrisons. Some 9,000 men were needed to complete the forces in India and Egypt to war strength, and this deficiency was being yearly reduced. A major change in the war organisation of the cavalry was recommended. Its existing paper organisation, whereby the six divisions of the two army corps received a cavalry regiment each, and the remaining three available cavalry regiments were to form an independent brigade, was to be replaced by an arrangement whereby each army corps was to have only one regiment and the remainder of the cavalry were to form an independent cavalry division, such as every other great power possessed. This recommendation, as a subsequent chapter will show, derived from the prevalent assumptions about the strategic role of cavalry in modern war. The reserve for this arm
was only 500 short of the number required to bring establishments everywhere in the empire up to war strength.

In the artillery, the proportion of guns to troops rivalled that of other powers; the report therefore recommended that, in conformity with the supposed requirements of modern artillery tactics, a separate artillery division be formed from the batteries presently attached to the army corps. As an economy device, four horse artillery batteries at home were to be converted into field. For the commissariat and transport, it was proposed to maintain small cadres susceptible of expansion in time of war. Knox and Brackenbury accepted, however, that the majority of supply personnel for an emergency would have to be enlisted as needed. Similarly, it was inevitable that civil practitioners would be called upon to augment the medical staff upon mobilisation. Ordinance stores were sufficient for the two army corps. To rectify the deficiency of more than 15,600 horses, commercial owners of suitable animals were to be asked to make them available whenever the other reserves were called up. For this concession the owners were to receive a small remuneration.68

Part II of the report considered home defence, a matter later examined exhaustively by J.C. Ardagh. Herein Brackenbury and Knox recommended some minor redistribution and an increase in the R.E. of eleven companies and in the garrison artillery of four batteries.69

The final part urged the authorities to begin immediate work on the mobilisation scheme for one army corps, and set out the principles to guide such preparation. Units of the first army corps were to be kept on the highest establishments and quartered at specified stations,

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68. Reports of a Committee on Army Mobilisation: Part I: Field Army, passim (1-15).

69. Ibid, part II: Garrisons.
reserves of equipment were to be built up at the depots of these stations, points of disembarkation were to be selected, and the Admiralty supplied with all relevant information. 70

These documents show that British planning for war was taking on its characteristically dual form. On the one hand, the authors of the report were dealing with the full-scale mobilisation of all auxiliary and regular forces for home defence. On the other hand, they were thinking in terms of a small field army to serve anywhere in the world, as the empire's trouble-shooter or in aid to a continental ally. This two-fold mobilisation was essential to Britain, lacking as she did the degree to which localisation was carried in Germany and France. Nevertheless, and according to the reports of 1886, both aspects of British preparation for war were to be encompassed within a single framework. Brackenbury and Knox stressed that if due provision were made for Britain's special circumstances, such a scheme could embrace both home defence and all the expeditionary forces she was ever likely to need. In this vein they concluded their investigation:

We can never hope to reach the same perfection of mobilisation as those foreign nations whose very existence depends on their being first in the field, but if our recommendations be carried into effect the Secretary of State may hope, within a reasonable time, to see our small army in as complete a state of preparation for war as the peculiar conditions of our service admit. 71

70. Ibid, part III: Mobilization for Foreign Service.
71. Ibid, 2.
Over the next thirteen years, the work of mobilisation proceeded apace upon these lines, though sorely limited by the lack of consultation with India and the absence of inter-service planning.

The years following Brackenbury's enquiry witnessed two allied developments. First, preparation for war was at last placed firmly within the context of a policy statement on the army's role. Second, a number of minor but significant steps were taken to render the mobilisation scheme a reality rather than a paper outline. In 1897, Major-General Sir Charles Grove (Military Secretary 1895-1901), wrote that Brackenbury's scheme never "received authoritative approval or the reverse". This statement would not seem to have been correct. Both in principle and in detail the mobilisation reports of 1886 received considerable endorsement over the ensuing years, although their confidential recommendations did not undergo the formal examination of a report laid before the House. Some minor points were not carried out. The conversion of horse into field batteries was set aside, and the British army fought both world wars with three battalions in a brigade. But the deficiencies in the Royal Engineers were rectified in the 1887-88 estimates, and the garrison artillery establishment raised. More importantly, Edward Stanhope (Secretary of State for War January 1887 to September 1892) publicly stated in 1888 that mobilisation work was under way in accordance with the reports of 1886. Its main principles, he remarked, "were accepted


by all my military advisers and it has ever since that time formed the standard up to which we have desired to work ...".75

Moreover, the two corps principle was embodied in the most significant statement on army policy of the period, the oft-quoted and somewhat infamous Stanhope memorandum. Therein those who had been appealing for a definition of the army's role found their response, though not one in accord in every reformer's convictions. 1888 was a year of great and perhaps unprecedented concern with defence, domestic and imperial.76 Stanhope could not have been otherwise than deeply influenced by the atmosphere of public opinion in that year. But it is apparent that the immediate impulse for the Stanhope memorandum came from the 1886 reports and a subsequent initiative on the part of Wolseley. From his point of view, Stanhope merely spelt out what had been the convictions of many reformers for a number of years. As early as 1875 Wolseley had urged that an authoritative context be established for the detailed work of army reform:

Before we proceed to discuss what our military force should consist of, it is, I think, essential that we should have clear views as to what objects we wish to secure by its means; its *raison d'être* to be well understood before we proceed to discuss its strength or organisation.

There is a seeming absence of plan and of fixed military principles for all our military establishments, nor would it


appear that any positive decision has been arrived at, having in view the altered conditions of military affairs and of military sciences throughout the world, as to what the requirements are, that the army is meant to secure, much less the number of men and the organisation to be given them in order to secure these objects. 77

Despite these appeals to authority, Wolseley was far from hesitant to give his own views on the matter. He was one of the most prominent reformers to express the conviction that "we ought to make our organization and our system of drill to suit the warfare that is in fact our normal condition of existence, and not the abnormal wars that perhaps once or twice in a century may be forced upon us". 78 Testifying before the Stephen commission of 1887, Wolseley echoed his earlier complaint that military planners were operating within a vacuum. 79

Finally, writing to the secretary of state in June 1888, Wolseley not only appealed again for a definition of the army's functions but set out his own ideas on the subject. In preface to a summary of the desirable peace establishments of the army, Wolseley wrote:

It is necessary to bear in mind that those who have to organize the military forces of the Crown, are left in


ignorance of the specific objects which that organization should aim at. For what purposes does the Army exist? What are its duties and the national objects it is meant to fulfill? Is the Army only intended for the passive defence of the United Kingdom, or is the passive defence of all our foreign possessions also to be provided for? Is it necessary to provide for the organization and equipment of any field army to operate on foreign soil, or even on British soil beyond the seas? And if so, what is to be the size of the field army? ... until clear decisions have been given upon them (these questions) by Parliament, or by the Government on the part of the nation, the military advisers of the Crown will be forced to work on comparatively in the dark, and in a haphazard fashion with no clearly-defined or well-understood aim, or military policy before them.

Nonetheless, Wolseley went on to argue that the basic duties of the army were indisputable. These were: the support of the civil authorities in the U.K.; provision of garrisons for India, fortified places at home and coaling stations abroad; the mobilisation upon emergency of three army corps at home (including auxiliaries) and of two army corps (regular and reserve) for expeditionary purposes, with their attendant cavalry and services. The remainder of the paper considered the slight changes in establishments which, in Wolseley's opinion, were necessary to fulfill these functions. 80 By the end of the year, Wolseley had the response he desired. In a memorandum sanctioning negligible increases in the establishments, Stanhope laid down, almost word for word, the functions of the army as set out by

Wolseley. The only material difference was that the mobilisation of the two army corps was to be the same for home and expeditionary purposes; that is, the army was to be able to mobilise, on short notice, two army corps for an emergency at home or abroad. Stanhope did not, therefore, insist upon a purely defensive approach to war planning. But, as a cautionary rider, he added the notorious "improbable probability":

But it will be distinctly understood that the probability of the employment of an Army Corps in the field in any European war is sufficiently improbable to make it the primary duty of the military authorities to organise our forces efficiently for the defence of this country.\(^{81}\)

In an abbreviated form, these points were embodied three years later in the document usually cited as the Stanhope memorandum.\(^{82}\)

During the same period, Major-General E.P. Chapman, Director-General of Military Intelligence in 1892, described the role of the army in memoranda similar to Wolseley's paper of 1888. Chapman added a further duty, namely, that the home army should be capable of reinforcing India in the event of war with Russia. Moreover, the D.M.I. favoured an Anglo-German alliance against France and a continental role for the British army. Stanhope's anger was aroused by these suggestions. Upon the proposal to reinforce India he minuted: "Is this (to pronounce on such matters) in any way part of his duty", and when Chapman circulated the documents within the War Office without prior permission, Stanhope rebuked him in the severest terms.\(^{83}\)

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82. "Further paper by the Secretary of State laying down the requirements from our army ...", (1 June 1891), W.O. 33/56, repr. Report, op. cit., 225.

The reason for Stanhope's reaction may simply have been that he was justifiably annoyed by Chapman's departure from the normal procedures. But it is equally likely that Stanhope considered that his response to Wolseley's initiative had closed the debate on the role of the army. Although addressed to the Secretary of State, Wolseley's memorandum had not been without presumption. Both soldiers had emphatically laid down what the government should define as the army's functions. Wolseley's statement, however, of what the army should do was nearly identical with what it could do at its current strength. Chapman's ideas involved a new departure, in which the army's current capability would be much exceeded by the demands of the duties he wanted it to discharge. This fact may explain Stanhope's annoyance with Chapman's initiative and his quiet acceptance of Wolseley's blueprint. There seems to be no evidence, however, to suggest that Wolseley was unhappy with the secretary of state's pragmatic response. It was interpreted very differently by Sir Coleridge Grove, who voiced in 1897 what was to become the standard criticism of the Stanhope policy after the South African war. To his mind, Stanhope had received a clear statement of the army's weaknesses from Brackenbury and Wolseley, and had defined its functions according to these deficiencies rather than according to the military needs of the empire:

By laying down as the ultimate organisation to be aimed at, the imperfect and provisional arrangements which were the best that the Mobilisation Section could temporarily hammer out, Mr. Stanhope's minute barred the way to the attainment of a
satisfactory or efficient military system. 84

Nonetheless, Stanhope did set the military planners a realistic standard, and to dismiss his policy as purely motivated by economy seems to be an oversimplification. It is not easy to read his private correspondence and the memoranda which accompanied his presentation of the annual estimates without feeling that national defence mattered as much to him as financial stringency. 85 A politician could not by-pass financial questions in the way the military members of the War Office tended to do. In setting or rather accepting the two corps standard Stanhope gave the planners of mobilisation a goal to aim at only marginally greater than the existing capability of the army. By comparison, the eight corps scheme of 1875 gave a sense of farce when set against the available military resources. The two corps standard was financially appealing and, since it involved the introduction of no new terms, found easy acceptance. Mobilisation had become, therefore, a "cry to conjure with" 86 and had been placed within the context of an authoritative statement on policy. The subsequent stage was the administrative refinement of the scheme and the institution of such practical measures as peacetime permitted. During the last decade of the century reserve stores were accumulated and the procedures to be followed on the declaration of war constantly revised and elaborated.


85. Stanhope Papers, Maidstone, Kent; Memoranda of the Secretary of State relating to the Army Estimates. Hansard, 3rd. series, appendices to 333, 342, 350, 4th. series, appendices to 2, 9.

86. Hansard, 3rd. series, 337 (18 June 1889), col. 203.
In 1887 Brackenbury found that the pressures upon his time were so great that they precluded his further work on mobilisation. At his instance a new subdivision of the Intelligence department was created to carry on the preparation for war. J.M. Grierson, then a rising star of the Royal Artillery, was recalled from Egypt to supervise the new section. Its duties embraced keeping a roster of units for service at home and abroad, maintenance of statistical information on numbers of men and horses available for mobilisation, and the compilation of plans for home defence.\(^{87}\) Given a congenial environment for such work by the invasion scares, Ardagh turned his attention to dovetailing the mobilisation plans with schemes for home defence. His labours bore fruit in several minutes and two major reports.\(^{88}\) To a large degree, these documents were paper schemes for the precise measures to be taken upon declaration of war, and, in retrospect, appear to be academic exercises. Nonetheless, the blueprints were given practical value in that, because the regular corps for home defence were identical with the expeditionary force, readiness for the defence of Britain contributed directly to readiness for overseas service.

Unlike the work of Brackenbury, the home defence schemes were laid before the Cabinet. Wolseley and other distinguished officers urged that the government authorize planning for first (regular) and second (auxiliary) lines of mobilisation and the construction of earthworks at strategic points around the capital. These measures,

\(^{87}\) M.s. memorandum by Col. J.C. Ardagh (n.d., ca. 1890), Ardagh Papers, P.R.O. 30/40/13. The mobilisation and intelligence sections were remarried in 1901: Report, op. cit. Minutes of evidence, 209 (Maj.-Gen. J.C. Ardagh). P.P. (C.1790, 1904), 41

\(^{88}\) Preserved in Ardagh Papers, P.R.O. 30/40/13, and in W.O. 33; reference is made to the latter collection. Col. J.C. Ardagh, "Defence of England", (17 April 1888), and "The Defence of London", (16 July 1888), W.O. 33/48.
Wolseley and his colleagues estimated, would cost £500,000. To reinforce these proposals, Stanhope drew the first of Ardagh's reports to cabinet attention. Unsurprisingly, the £500,000 was not forthcoming, but these plans were not simply lost in the War Office files. £20,000 was included in the 1889-90 estimates for the purchase of storage sites, and Ardagh's home defence schemes were accepted in principle. Headquarters staff examined their feasibility on the ground itself, and thirteen defensive sites were purchased, three of which had been given provisional fortifications and storage facilities by 1897. Some £50,000 had been expended upon this work by that date. In view of the success of the mobilisation of the first field force in 1899, there is no reason to suppose that the home defence scheme would have proved illusory if put to the test.

Preparation of the expeditionary force was similar; certainly deficient but not merely limited to outlines on paper. Those who were contemptuous of mobilisation work after 1886 seem to have had little direct knowledge of progress within the War Office. Dilke, in the wings of public life after his divorce scandal of 1886, wrote mockingly of "visionary" mobilisation schemes and as late as 1898 declared that it was impossible for the army to transform its plans into reality. Critics such as him simply failed to appreciate what was taking place.

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91. The British Army (Lond. 1888), 72, 204-15, 76, and his Army Reform (Lond. 1898), 43-44. Similarly T.S. Sturme and Louis Tebutt, The British Army and the Business of War (Lond. 1896), 10, 11, 29; Hansard, 4th. series, 22 (16 March 1894), cols. 519-20.
In addition to the afore-mentioned preparations for home defence, tables of reserve equipment were drawn up and regularly revised, and depots of stores gradually brought up to their stipulated levels. When depleted to supply an expedition, they were replenished as rapidly as possible. The standard to be aimed at was laid down by the reserve stores committee of 1888; to complete (rather than, as in continental mobilisation, to equip from scratch) for war the two army corps and the attendant cavalry and line of communication troops. In 1893 standing tables for the men, supplies and equipment available for part of the expeditionary force were compiled. By 1898 mobilisation tables for every type of unit had proliferated and were regularly issued to commanding officers. As recommended by Brackenbury, a system of registration of horses was begun and some 14,000 were already on the lists by 1889. This is not to deny that when war was declared in 1899 there were grave deficiencies in reserve stores, as summarized by Brackenbury himself in a well-known memorandum. On the positive side, however, there were 200 to 300 rounds per gun of ammunition in reserve, 10,000 sets of infantry accoutrements, 5,000 tents, 100 hospital tents, and a few hundred sets of mounted infantry equipment.


95. Hansard, 3rd. series, 337 (18 June 1889), col. 179

This seems to be meagre enough in comparison with the unanticipated demands of war. In comparison with the anticipated needs of the initial field force, the deficiencies appear less glaring. It may be borne in mind that the administration had been developing the reserves of stores for scarcely more than a decade.

As elaborated on the eve of the South African war, the mobilisation scheme appears to have been a rather masterly application of continental models to British conditions. The reserve, short service, the very concept of mobilisation, were all foreign ideas. As developed within Britain, they had taken on an insular aspect. The chief difference between Britain and the continental powers arose from the unique system of British localisation. Rigid localisation in the armies of the great European powers permitted the military authorities to lay it down that a numbered army corps was to be quartered at specific places and to consist of specified units. In the British army the place of forces in the mobilisation scheme was defined by which units happened to be at specified locations at any one time. Thus, the composition of the army corps was continually changing, a provision manifestly suited to an imperial army whose constituents were frequently on the move.97

Other minor differences abounded, some of which will be noticed in later chapters. British army corps possessed a far smaller proportion of regular cavalry to infantry and artillery than the armies of France and Germany.98 To what extent this reflects the greater


purity of cavalry traditions on the continent is speculative; it could have been a matter of expense. Permanent machine gun units, mounted infantry, mounted Royal Engineer units, and signaller companies were not represented in any European army of the 1890s except the British. It will be shown below that the first two services seem to have been established in direct response to experiences in colonial warfare. The most glaring defect in the mobilisation scheme remained the absence of permanent staff for the higher units. Temporary staff cadres formed during small wars provided valuable training for commanding officers, and the administrative demands of standing staff appointments in the War Office and the educational establishments should not be underestimated. Nevertheless, the fundamental deficiency remained; in the home army the staffs which would be needed in war existed only on paper in peace and found merely an occasional embodiment during manoeuvres.

A final and untried improvement in Victorian preparation for war was introduced at the close of the period. Even according to the two corps standard, mobilisation provided only for the grand occasions; full-scale war or important colonial campaigns. Routine imperial policing was still liable to disrupt the whole system. This problem was not ignored, least of all by the Cardwellites themselves. In fact, they devoted more attention to it than did proponents of a dual army, preoccupied as these were with the threat of a war with Russia. The home reformers suggested that a portion of the reserve be placed at the discretion of the secretary of state, who could use it without having recourse to

parliament. Such forces as were mobilised could draw upon the standing reserve stores of supplies and equipment. This idea was broached to the Commons as early as 1879, discussed in the press, and enthusiastically purveyed by Wolseley and Sir Arthur Haliburton. By the end of the century, sufficient support had been mustered to pass a bill dividing the reserve into two classes. The first class remained subject to the original provisions of the army enlistment act. The second, numbering 5,000, voluntarily rendered themselves liable to service abroad at any time in return for a small remuneration.

In assessing the readiness for war of the Victorian army in 1899, it is not easy to strike a balance between what had been done and the enormous amount that remained to be done. Certain fundamental weaknesses persisted. Preparation for war was engaged in what may be called a game of double bluff. The expeditionary force was at once the primary line of defence at home and the means for offence abroad. An expedition like the Egyptian campaign of 1882 would have, even under post-1886 arrangements, stripped the United Kingdom of most of her mobile field force and left the few remaining regular troops tied up in garrisons. As it was, of course, the South African war left Britain frighteningly unprotected as well as straining her auxiliary forces to the utmost. The reliance upon India for small expeditions was another instance of the same Janus-face of Britain's military organisation. As well as


discharging its custodial duties and preparing for a war on the North-West frontier, the Indian army was obliged to fulfil its somewhat illegitimate expeditionary role. The device was a gamble forced upon the authorities by economy, and related to the imbalance of battalions. Britain's home army was weakened for the sake of the troops abroad, and all hoped that it would not be put to the test. Without any "slack" in human resources, it was difficult to make statutory provision for the normal mode of warfare of the Victorian army. Nonetheless, within individual services continual adjustments were being made to the needs of small wars. The reform of 1898 suggests that, had circumstances not changed, this process would have been taken much further.

On the credit side, the rise of mobilisation schemes and the accompanying accumulation of reserve stores translated the concept of an expeditionary army into reality. When mobilisation was ordered on 7 October 1899, the reserve responded almost to a man, and proceeded to the theatre of war well fed and properly armed. As Sir Ralph Knox wrote excitedly to Sir Henry Campbell-Bannerman: "Our doings here are perfectly wonderful, everything going so smoothly. Division after division is mobilized by the turn of a handle". If the scale of events in South Africa had coincided with the scale of mobilisation plans, Victorian preparation for war may have evoked little besides admiration. It is the characteristic irony of this period that, just as army reform was adjusted to embrace the warfare of the Victorian age, this was coming to an end.

CHAPTER 3.

Manoeuvres and the Concentration of Higher Units.
The average Victorian officer, it may be surmised, habitually thought in terms of his regiment rather than the army. Some reformers, however, normally thought in a broader context, and were inclined to make the average commander do likewise. They therefore sought to persuade the authorities to concentrate troops as far as possible in peacetime, both in standing camps and by the institution of large-scale manoeuvres. The importance of training officers and men by brigade and division became a staple of military discussion within reforming circles. Many contemporaries were aware of the inexperience of most Victorian officers in the problems of command and administration associated with large bodies of troops. That the fragmentation of units characteristic of Victorian warfare reinforced this inexperience was widely appreciated.

Manoeuvres proved an eventual success story for the reformers, but their efforts to rectify the home army's dispersion, a heritage from the days of Lords Sidmouth and Liverpool, were largely frustrated. Sir Patrick MacDougall's localisation committee of 1872-73 had urged the concentration of troops in key training centres, and had enumerated their most desirable locations. In response to this recommendation certain existing stations (Colchester and Shorncliffe) and the barracks at Glasgow and Belfast were enlarged. Only one new camp was created, and no action was taken with respect to the great centres of Aldershot and the Curragh. Thereafter, official interest in the concentration of troops seems to have flagged until revived by W.H. Smith (secretary of state for war 1885-86 and 1886-87). In 1885 he appointed a

committee to investigate the possibility of concentrating the army in centres suitable for strategical instruction. After a brief deliberation, the committee drew up a list of twenty-four stations which they believed it would be advantageous to vacate. The Home Office immediately objected to the vacation of nearly all these sites, presumably on the grounds that it would leave the civil power without proper support in the event of social crisis. Foiled, therefore, by thinking more suited to 1815 than 1885, the committee relinquished their scheme.3

Only in manoeuvres could troops be organised in the higher units in which they would fight, march, and be commanded in the event of a major war. Throughout most of this period, Britain was unique amongst the great powers in failing to conduct regular and large-scale manoeuvres. Legislatively, they did not become a standing part of British preparation for war until 1896.4 Previous to this date, manoeuvre acts were occasional; fresh bills were introduced in 1871, 1872, 1873, 1875 and 1882. Finally, in 1896 the constitution of the act was altered to permit its application at any time by order in council, (subject to limitations embodied in the act). A revised version of this was passed in the following year, and under the new law the great Salisbury exercises of 1896 were carried out. Minor manoeuvres conducted during the 1890s were made possible only by agreement between district commanders and landowners and occupiers.

3. Report of the Committee appointed to enquire into the Distribution of the Army in Great Britain, with a view to its greater Concentration in Strategical Centres or Camps of Instruction, passim Smith papers, W.O. 110/8. Also preserved in W.O. 33/45.

4. Military Manoeuvres Act 1871, P.P. (1871), 4; ibid, 1872, P.P. (1872), 3; ibid, 1873, P.P. (1873), 3; ibid, 1875, P.P. (1875), 4; ibid, 1882, P.P. (1882), 4; ibid, 1896, P.P. (1896), 5; ibid, 1897, P.P. (1897), 5.
The slow development of planning for war at the highest levels of Britain's military organisation has been delineated in the preceding chapter. Manoeuvres, because they normally brought together units composed of all the services, were the practical corollary to such planning. They provided a useful, if limited, test of some of the procedures and organisations devised by the War Office authorities. Inevitably, as peace-time exercises, the manoeuvres gave only the vaguest indication of the fighting abilities of troops. With respect to the main theme of this study, the introduction of manoeuvres was a striking example of the Prussian influence in the early seventies. Prussia was the first great power to institute exercises which were a simulacrum of real war, and her example was an abiding inspiration to those who urged that Britain should do likewise. A later chapter will portray the enthusiasm with which British observers watched and criticised the great manoeuvres of the foreign powers.5

Cardwell, attuned to new ideas in training as in organisation, ordered full-scale manoeuvres, with the consent of parliament, in his third year of office. These were unprecedented; the concentration at Chobham in 1853 had been a standing camp rather than manoeuvres in the modern sense of the word.6 It was almost universally acknowledged that the exercises of 1871 were a splendid occasion. The odd kill-joy, such as Colonel C.C. Chesney, argued that the gulf between real and mimic warfare was so great that nothing could be learnt from the

5. Ch. 4, p.104-06; and Col. Valentino Baker, Army Reform (1869), 35-37, Tracts 1839-74.

latter. But most commentators agreed with Charles Brackenbury that the 1871 manoeuvres marked Britain's coming of age as a military nation. We shall now, he exclaimed exultantly to the R.U.S.I., "make all nations come here to learn from us". The military press followed the field days closely, and the *Times* published elaborate and solemn analyses of the generalship of the opposing sides. Cardwell was particularly gratified by the admiration for the manoeuvres expressed by foreign dignitaries and generals, taking all their compliments in good faith.

Despite the distractions of spectacle and the sense of occasion, there was an earnest endeavour to derive professionally useful lessons from the manoeuvres. Searching criticisms on their conduct were made by a number of officers, though not by Cambridge in the public report laid before parliament. Save for some remarks which reflected upon staff work and the exposure of infantry to fire, his assessment of the manoeuvres awarded bland praise all round and made no pretence at analysis. But others saw the manoeuvres less as an occasion for self-congratulation than for examination and criticism. It was readily perceived that their chief value lay in the opportunities


9. Edward Cardwell to Queen Victoria, 20 Sept. 1871, Cardwell Papers, P.R.O. 30/48/3, ff. 172-73. The Queen cast rather a damper upon his enthusiasm by remarking, in reply, that she hoped manoeuvres would not become a regular part of the military scene. (Henry Ponsonby to Cardwell, 29 Sept. 1871, *ibid.*, f. 174).

they provided for practice in administration. Mock-battles in the
pleasant autumnal downlands of Salisbury Plain were of much less
importance, as Sir Archibald Alison pointed out, than "those operations
which are carried on out of range of fire".\footnote{11} It seems to be clear
that, as a test of the troops' fighting skills, the manoeuvres were of
negligible value. Their intrinsic unreality was exaggerated by the
insistence of the C.-in-C. upon the rigid British line.\footnote{12} Suicidal
tactics went unrebuked, and Captain W.S. Wolfe noted an entire dis-
regard of cover amongst the infantry.\footnote{13} Prearranged schemes of attack
and defence gave little scope to the initiative of junior commanders,
so that their operations resembled what one writer later called
"campaigning in nightgowns and slippers".\footnote{14} Nonetheless, however
unreal, such operations were an improvement on the tedious round of
regimental field-days. To exercise with some purpose in view, a
cavalry officer wrote, infused new life into squadrons wearied of
being "boxed about to all parts of the compass with the most perfect
mechanism, but without the smallest gleam of object".\footnote{15}

General administration and command were defective, but their
short-comings did not escape censure. Staffs of the opposing sides

\footnote{11} "Our Autumnal Manoeuvres", \textit{Blackwood's Edinburgh Magazine} 111
(Jan.-June 1872), 322.

\footnote{12} "Report of His Royal Highness ...", \textit{op. cit.}, 9.

\footnote{13} Capt. W.S. Wolfe, "A Sketch of the Autumn Manoeuvres of 1871",

\footnote{14} Anon, "Camps of Exercise in India", \textit{U.S.M.} (1873), pt. 1, 176.

\footnote{15} A Cavalry Officer, "Our Cavalry System", \textit{U.S.M.} (1871-72),
575.
were, of course, especially formed for the occasion and evidently in a somewhat haphazard manner. Many staff officers seemed to be uncertain of their precise duties, and most failed to appreciate the distinction between the executive role of the Quartermaster General's department and the administrative function of the newly formed Control department. No head of administration in the field or chief of the military staff existed to resolve these confusions, nor were procedures authoritatively laid down. Thus, on occasion, whole divisions were separated from their transport and baggage at vital moments in their strategic movements. These mishaps did, however, lead to the appointment of a staff officer in each division who was to oversee the baggage, ensure that it advanced in the same line of march as the troops, and submit a daily written report of his charge. By the gradual formulation of such elementary procedures the Victorian army moved towards an efficient administration in the field. In 1871, as in later years, the opportunity was seized to experiment with new ideas. A system of regimental transport, which had no permanent existence in the British army, was tried out in two cavalry regiments and "answered admirably". The artillery was freed from its traditional adherence to infantry movements and was employed as an independent arm. How significant this reform was in the


development of tactical thinking will be shown in the subsequent chapter.

All this is not to deny the element of play in the manoeuvres. What seems to have been the most exciting episode of the 1871 manoeuvres occurred when a troop of Life Guards' horses bolted, frightened by a flock of geese. Officers and men downed battle-plans and rifles and joined in a mock-heroic pursuit which lasted several days and afforded much innocent amusement to observers and the Times' correspondent. All exercises provided the pretext for lavish picnics, garden parties, and gatherings of the landed elite. For officers, the frugality of camp-life was tempered, as Colonel Henry Knollys later fondly recalled, by privately contracted trains carrying alcoholic beverages and other luxuries. The festivities concluding the cavalry exercises of 1890 typify the conviviality of Victorian manoeuvres:

After the march past Sir Evelyn Wood entertained the farmers and landowners of the district to luncheon in a tent on the ground and the proceedings wound up the same evening by a great ball given at Lockinge House to the staffs and regimental officers of both camps and to neighbours far and wide.

As portrayed in the civilian if not the military press, Victorian manoeuvres sometimes remind one irresistably of the astonishing and delightful day Mr. Pickwick had spent at a certain review many years ago.

20. Times, 2 and 4 Sept. 1871.

21. "English Officers and Soldiers - as they will be", Blackwood's Edinburgh Magazine 159 (Jan.-June 1896), 203.

22. Lord Wantage, V.C., K.C.B. A Memoir by his Wife (Lond. 1907), 332.
previously. Nonetheless, to scientific soldiers such as Wolseley, manoeuvres were completely serious. He seized the opportunity they offered in 1871 to pass a savage judgement upon most of his colleagues: "the majority were incapable", he wrote (anonymously), "of affording instruction to others from their ignorance of the science of their profession ...".23

During the following autumn, a small army of some 30,000 troops was gathered in Dorset and Wiltshire and exercised over a fair tract of territory. Staff work seems to have been carried out more adeptly than in the previous year, and some attempt was made to establish a system of regimental and centralised transport suitable for real campaigning.24 Just how efficient was the management of troops can hardly be ascertained from the anodyne phrases of Cambridge's official report.25 In 1873 about thirty thousand troops were again exercised, but at three different locations: Dartmoor, Cannock Chase, and the Curragh.26 Then, scarcely before there had been time to digest such lessons as the manoeuvres afforded, they ceased. Small-scale exercises were held frequently over the next quarter-century, but there were no more large concentrations until 1898. The official reason given for this change in policy was lack of funds.27 Disraeli's

27. Hansard, 3rd. series, 225 (13 July 1875), col. 1371.
government was also perhaps influenced by those who regarded manoeuvres as un-English and a threat to property. Certainly, the rights of landowners and shooting tenants were an acute problem in the conduct of manoeuvres during the 1890s.

So-called manoeuvres were held at Aldershot in 1875, but the troops simply lived in quarters and worked over the surrounding few miles of well-known countryside. In 1890, genuine manoeuvres were conducted at Dover, in the form of combined naval and military exercises. These coincided with the emergence of Major-General Sir H.E. Wood as the guiding spirit in the reform of British tactics and training. Much of his time as commander of the eastern district and then of Aldershot was spent in applying his considerable charm to persuade landowners to allow invasions by troops of the farms and parklands of the great estates. Gaining access to sufficient land was a persistent problem, but was minimized by the troops' impeccable behaviour and the social standing of commanding officers. When so much depended upon personal contacts, this was of first importance. Wood, for instance, was a City Liveryman, sportsman general par excellence, and bon vivre; during one period in London he dined out for sixty-nine successive nights. His successor in the Aldershot command was the Royal Duke of Connaught.

While at Colchester, Wood instituted the practice of night marches for infantry and long distance rides for cavalry. Upon assuming command at Aldershot, he immediately resumed the practice

28. Ibid. col. 1368.
29. Hansard, 3rd. series, 345 (13 June 1890), col. 837.
of regular manoeuvres, though necessarily only within his district. Within this lay the estates of Viscount Wantage, a leader of the Volunteer movement and a peer with a long-standing interest in military affairs. His good offices permitted Wood to conduct prolonged cavalry manoeuvres in 1890. A force of 3,000 engaged in mock conflict over some twenty miles of Berkshire downs by day and encamped on Wantage's ground by night. These exercises were of particular interest, as being the first occasion when British cavalry were trained divisionally. Manoeuvring horse in division became a regular occurrence thereafter. Land proved less accessible for Wood in the succeeding year. Approaching a number of landowners in Hampshire, he gained an immediately favourable response. Several tenants and owners agreed to allow troops onto their land, and the magnate of the district, the Earl of Carnarvon, gave permission for 6,000 men to encamp upon his parklands. But Wood was blocked by the holders of shooting rights, who refused to allow disruption to the pheasant season. Wood then tackled the landowners of a different part of the county, and was frustrated in the same manner. Finally, some inferior tracts of common and farmland were secured around Petersfield.

Such problems were recurrent. On the eve of the purchase of Salisbury Plain by the government, General George Arthur gained the permission of landowners to carry out the 1895 manoeuvres on that

32. Ibid, II, 183-84.
34. Hansard, 4th. series, 2 (7 March 1892), col. 232; Army Book, 204.
part of the Wiltshire countryside. Despite this, the objections of the shooting tenants proved insurmountable. Arthur then resorted to a more inconvenient location in the New Forest. Some landowners, perhaps, appeared obliging only because they could rely on their shooting tenants to stop the fulfilment of any rash promises. In the subsequent year, during the delayed passing of the 1896 manoeuvre bill, the problem became quite intractable. Arthur found it impossible to gain access to any extensive tract of unfamiliar ground and was forced to be content with the tediously familiar Fox Hills of Aldershot. As five divisions were involved, they simply had no room to move. Therefore, although the exercises were unprecedented in size, they were in the nature of field days rather than genuine manoeuvres.

Even when land was secured, its use was hedged about with crippling restrictions. Not only were troops forbidden to trample upon growing crops, but the greatest solicitude was also displayed for farm livestock:

Care is to be taken by mounted troops not to gallop past cattle or horses grazing or working on the farms or out for training, but to move steadily past them. Troops should not move past sheep-pens at a less distance than 50 yards or fire within 100 yards of them. In the case of flocks being driven across the line of operations troops are to give them a wide berth, and if the sheep scatter, the men should halt until the shepherd gets his flock clear.

When halted near hay or straw ricks, the horses are not

to be allowed to nibble them. ... If any game is started it is on no account to be pursued. 38

How often did the cavalry, one wonders, raise a trot? One result of this commendable responsibility on the part of the military authorities was the modest cost of compensation. Claims for damages were few and quickly settled. 39

Reports of manoeuvres in the last decade of the century tell us rather more about their conduct than do the command papers of the early seventies. Being printed for circulation only within the War Office and to certain commanders, the later reports were frank and exhaustive in their criticisms. Moreover, the manoeuvres of the nineties seem to have been approached in a more rigorous and professional manner than had their predecessors. Before the 1891 manoeuvres, Wood had the Ordnance Survey department draw up seven hundred maps of the area, and these were issued to all officers concerned. In addition, they received a précis compiled by Wood of the tactical mistakes made during the previous two years training at Aldershot. A detailed narrative and analysis was compiled of each day's operations and was, one presumes, discussed. 40 Elementary but vital procedures were laid

38. *Autumn Manoeuvres in Hampshire* (1891), appendix Q.


down; that officers had to be told to write orders on "white paper, consecutively numbered, correctly timed, dated, and addressed" indicates something of the haphazard methods which seem to have prevailed in the first manoeuvres.  

Cumulatively, the reports of the 1890s suggest that regimental officers were becoming more responsive than previously to local topography and its effects upon tactical movements. Less tolerance was afforded to actions which would have been impossible in war. In 1893, for example, general officers were urged to stay in the rear, and all officers, of whatever rank, who were found mounted in the firing line were automatically put out of action. Certainly, headlong assaults regardless of topographical features remained a common occurrence, though it is significant that such tactics were severely criticised. The right ideas were there, but only slowly being put into practice. As Wood wrote revealingly to Stanhope:

I could not allow the combatants as free a hand as I should have preferred, and the attacks were not only pre-arranged, but were actually timed very much like events in the large London Music Halls.

Few cavalry commanders employed their troopers, as ordered, for flexible reconnaissance rather than attack. Their units moved in

41. Report on Autumn Maneuuvres (1895), appendix B.
42. 2nd. Division Manoeuvring Force (1893), Diary by Assistant A.-G. Col. J. Alleyne, 24.
43. Ibid, 21; Report on Autumn Maneuvres (1895), 4; Report on Summer Exercises ... (1897), 3; and also see Report of His Majesty's Commissioners Appointed to Enquire into the War in South Africa Minutes of evidence, 444 (Maj.-Gen. J. Talbot Coke). P.P. (C.1790, 1904), 41.
44. Wood to Edward Stanhope, 24 Oct. n.d. (internal evidence points to 1891), Stanhope Papers, U 1590/0315.
rigid formation without regard to country, and they "seemed intent on disposing the men under their command as if to complete some diagram." Orchestration of artillery, machine-gun, and infantry movements was at a very elementary stage. On one occasion, a machine-gun detachment claimed to be doing massive execution upon the enemy side. The umpire, intervening, found the gun to be showering troops of its own brigade with imaginary ammunition. During the 1896 Aldershot exercises, one battery was caught blazing away at a hillside crowded with spectators. Even within the limited areas of the 1895, 1896, and 1897 manoeuvres, coordination of higher units was extremely defective. In 1895, commanding officers lost track of their own brigades, and a battalion of the Northern force charged its own artillery.

Manoeuvres seem to have been more sophisticated on the technical side. Commanding officers showed every willingness to combine telephony, telegraphy, and machine-guns with troop movements, even if their enthusiasm outran their expertise. Telephone exchanges were constructed in 1891, and became an accepted part of manoeuvres thereafter.

Experimental balloons, and steam traction engines (to be a familiar sight in the South African war), were tried upon occasion. Opportunity was taken to embody some of the war organisation for supply and

47. Report on Autumn Manoeuvres (1895), operations of 24 Aug. (n.p.).
49. Ibid, 8; Report on Autumn Manoeuvres (1895), 9.
transport, of which the newly formed Army Service Corps was a part. Accordingly, from 1891, the executive control of supply, previously entrusted to civilian contractors, was entirely committed to the new service.\textsuperscript{50} Such experience was invaluable. Like the staff organisation of higher units, the wartime structures of supply and transport existed only on paper during peace. Manoeuvres therefore provided the chance to test organisations which normally consisted only of written regulations. These minor exercises of the nineties typified Victorian army reform. Their achievements did much to enhance the army's efficiency but also threw into relief its remaining defects.

Britain was finally brought into line with the continental powers when the act of 1896 made manoeuvres part of her regular preparation for war. Here was the answer to the pleas of army reformers, from Valentine Baker in 1869 to H.W. Hanbury nearly a quarter of a century later.\textsuperscript{51} In 1898 two army corps, with their attendant cavalry brigades and a full array of services, manoeuvred against each other in Wiltshire and on Salisbury Plain. Blue army, presumed to have been an invading force and commanded by General Sir Redvers Buller, was eventually adjudged to have suffered defeat. (There was no lack of commentators upon this fact after Colenso and Spion Kop). The work of the supply and transport units evoked admiration, as they were to do in the South African war, and railway administration seems to have meshed in efficiently with the needs of supply and strategy.\textsuperscript{52}

\textsuperscript{50} Autumn Manoeuvres in Hampshire (1891), 17 and appendix H; Report on Autumn Manoeuvres (1895), 8; Report on Summer Exercises (1897), 5.

\textsuperscript{51} Col. V. Baker, Army Reform (Lond. 1869), 35-36, Tracts 1839-74; Hansard, 4th. series, 2 (7 March 1892), col. 192.

\textsuperscript{52} Anon, "Railways and the Manoeuvres", U.S.M. n.s. 18 (Oct. 1898-March 1899), 71-81, and for an excellent analysis of supply and transport in the South African war: Andrew Page, "The supply services of the British Army in the South African war 1899-1902". (Oxford D.Phil. thesis 1977), chs. 5 and 8.
Tactics and command appear to have been less satisfactory. The cavalry concentrated to an exaggerated extent and favoured the tedious work of intelligence much less than shock tactics. Seizing "every opportunity for a charge" they provided a brilliant display for the numerous spectators. The deliberation with which troops moved under supposed fire showed how much remained to be taught by the shock of real war. But even Wolseley, never a man who shrank from criticism, acknowledged that:

While these manoeuvres have brought out mistakes they have shown indubitably the immense strides which the Army has made of recent years; the increased efficiency of the Staff, the keenness, the interest in, and the increased knowledge of, their profession displayed by our regimental officers ...

The introduction of manoeuvres into Great Britain owed little to her own experiences of war during the period under review. Nonetheless, it was a reform supported by almost everyone who considered himself on the side of change and efficiency in the army. The very success of the agitation for manoeuvres, however, bred a slight sense of complacency amongst those who admired the great exercises of 1898. It was Buller who wrote with unfortunate assurance:

In conclusion I must testify to the immense advantage the Army has derived from these manoeuvres ... In staff training alone their value has been estimable, while Officers of all


54. Ibid, xvii.
ranks, and no one more than myself, have profited individually.55

55. Report by Gen. Sir Redvers Buller, (10 Sept. 1898), ibid, 13-14. Thomas Pakenham has sought, however, to vindicate Buller's reputation in his recent splendid book, The Boer War (Lond. 1979), 123-307. This work supersedes all previous narratives of the war.
CHAPTER 4.

Infantry and Artillery in Battle: Tactical Debate and Training.
A myriad of small improvements in the routine training of troops accompanied the introduction of manoeuvres into the Victorian army. Behind both developments lay a world of tactical debate, most of which focused upon the nature of modern battle and the role of the various arms therein. Some of this debate was banal and repetitive, but much was alive with enthusiasm and imagination. As might be assumed, practical reform tended to lag behind changes in theory. Nonetheless, the degree to which modern ideas were accepted in theory and modified training seems to have been generally underestimated.¹

On the eve of the Prussian campaigns of 1866 and 1870-71, British tactical ideas and training had altered little from those of the Peninsular war. Most infantry troops were taught little besides endless drill around the barrack square. Official regulations on the subject were dominated, in the apt phrase of one writer, by the "study of mechanism without object".² The spirit of Sir John Moore did, however, linger on in the stress upon preliminary skirmishing and double lines as the way to meet the massed columns of the continent. Thus Kinglake could write with confident grandiloquence of the battle of the Alma:

But along the whole line, from east to west, these files
of two men each were strong in the exercise of their country's

¹. Thus, a distinguished historian has recently written: "(General Sir Redvers Buller) was the first British general to grasp that the old parade-ground advance in close formation was suicidal on the veldt." A.J.P. Taylor, review of T. Pakenham, The Boer War (Lond. 1979) in The Observer 9 Sept. 1979. The ensuing chapter indicates that Buller's views were not without precedent in the Victorian army.

². A Cavalry Officer, "Our Cavalry System", J.S.M. (1871-72), 574. Prescribed ideas at the opening of the period under review are well indicated in Field Exercise and Evolutions of Infantry (H.M.S.O. 1867)
great prerogative. They were in English array. They were fighting in line against column. 3

The technical excellence of the artillery in the 1860s outstripped the proficiency of its men and officer in field movements. Notions of infantry and artillery cooperation were in their infancy. Training in the higher units of artillery did not exist, and the army "thought in batteries". 4 In their movements artistic impression was all:

The six guns were accompanied by their six waggons close behind them. When the guns made the slightest change of position, the waggon had to follow it and cover it off with the same precision, however small the space traversed, as before. In action at drill the officers sat on their horses between the guns ... 5

British tactical ideas were thrown into confusion by the Prussian victories. The American Civil war was certainly not ignored, but its effects were slight and gradual compared with the impact of the campaigns of Moltke upon the European military world. 6 Reforming thinkers in every European army were constrained to reassess radically the probable nature of future battles. With respect to the infantry


and artillery arms, the origins, nature, and practical results of this reassessment in Britain are the concern of the ensuing chapter.

The relevance of continental examples to British tacticians was enhanced by the introduction of breech-loading rifles in 1866 and of short service in 1870. The first reform put British troops roughly on a technological par with those of France and Germany. The second meant that British regimental officers would henceforth, like their European counterparts, be training chiefly young soldiers over a relatively brief period. It is therefore unsurprising that the assertion of English traditions should have been initially only a modest accompaniment to the somewhat awed attention paid to German methods. There is now, wrote one dissenter in 1871, "a Prussian mania far stronger and more general than the French mania ever was". Of this early phase of thought, J.P. Maurice's Wellington Prize Essay was the most famous, distinctive, and influential example. This tract embodied the latest continental ideas, but expressed them with a wit and elegance which makes one of the most readable military studies in English.

The significance of its argument was threefold. Maurice was in the vanguard of those who argued that it was impossible to maintain closed formations under breechloader fire. Massed assaults had


become suicidal, as evidenced by the four thousand casualties of St. Privat. Secondly, he was one of the first to appreciate that German tactics had been developed under stress of circumstances and therefore, as models, should be regarded with caution. Maurice was especially wary of the later great victories of Gravelotte, Beaumont, and Sedan, pointing out that, as French morale and organisation crumbled, the German tactical innovations of the late sixties... were never perfected even under the more rapid tutorship of battle itself. The time came when the only thing that was dangerous was not to dare enough.

Thirdly, and despite this proviso, he supported the notion of the "swarm formation".

In practical terms, this seems simply to have been a disintegration of European columns under battlefield conditions, and is to be distinguished from the skirmishing order of the British line. By the early seventies, continental writers, the most famous of whose works were soon circulating in English translations, had elevated the swarm formation into a principle of modern tactics. Basically, it was argued that the attack should be carried out by units grouped within a shallow, vastly extended front forming the firing line. This, as it converged towards the enemy's weaker areas, should be fed continually by supports merging into the firing line, and finally strengthened by the reserve, thrown en masse towards the decisive point at the decisive time. Then the whole body would charge home.


with shouts, fixed bayonets, and the roll of drums. The fundamental principles of this doctrine were: the flexibility permitted to formations under fire, the need for troops to coalesce around their nearest officer when normal divisions between units gave way in the advance, and the latitude given to the admixture of units, even to the point of allowing brigades to mingle in the firing line. With minor variations, this form of attack soon became standard in all major European armies. In essence, Maurice was at one with continental tacticians in maintaining that extended formations should not merely prepare, but become, the assault.

He did not, however, look for salvation merely in forms. The chief significance of the breechloader, to his mind, was that it demanded an end to mechanical training. Only thereby, under the fissiparous conditions of the modern battlefield, would an intelligent response to contingencies be found at all ranks. Clear instructions should replace rigid prescriptions, and responsibility should be delegated to every level, with due regard to the amount of freedom with which each rank could cope. As he later remarked in virtual summary of the essay:

The essence and substance of the change which is taking place is not that we have taken up a skirmishing form of fighting in


place of masses and line, but in those points ... which I should express by saying that whereas under the old condition of fighting the General in command had to handle a machine, now he has to lead and guide a body which has become infused with a spirit and a mind of its own ... 14

Within a few years of the Franco-Prussian war a progressive school of tacticians, deeply influenced by their observation of continental experiences, had emerged in Britain. The points upon which Maurice's essay turned soon became the commonplace of advanced tactical thought. Above all, it was stressed that the road to victory was the accumulation of firepower at the enemy's weakest points. Indeed, as one disgruntled traditionalist remarked, the contemporary military "shibboleth is most decidedly an unquestioning, almost a child-like belief in the breechloader ...". 15 Colonel Lonsdale Hale was distinctly exceptional amongst reformers in maintaining that the soldier was to become an absolute machine, an opinion which drew a shocked response from Maurice. 16 In brief, this school took as its text for the future: "Let us not merely drill, let us educate". 17


Although tactical debate during the early seventies concentrated upon the role of infantry in battle, other questions were far from ignored. The writings of the artillerist Prince Kraft were first translated into English in 1872, and their emphasis upon the semi-independent action of artillery en masse found a favourable reception in Britain. Maurice, citing Kraft as an authority, inveighed against the tendency of artillery officers to think in batteries. As noticed above, the manoeuvres of 1871 were a landmark, if a rather academic one, in the development of artillery training. During these field days, and evidently under persuasion from tactical reformers, Cambridge ordered the artillery to act as an independent arm (subject to the direction of their G.O.C.s) and to avoid its traditional adherence to infantry movements. Conformation of guns to infantry was thereby pilloried, in Henry Hime's extravagant phrase, as "utterly and diametrically contrary to the whole spirit of modern tactics ...". But as long as the three arms were rarely exercised together this change in the regulations had little practical import. Not until the Russo-Turkish war did the question of guns and entrenchments receive serious attention.

It was natural that, in an age of technological innovation, the French mitrailleuses should have aroused curiosity amongst British reformers. What is more surprising is that, after the poor performance of the new arm during the battles of 1870-71, the machine-gun


should have been regarded as a weapon of great potential by commentators in Britain. A War Office committee of 1871 exhaustively examined evidence relevant to the new arm, and concluded that it should be used in a defensive role and as supplementary to artillery. Some practical experience with this new and horrifying weapon was needed before British reformers recognized its potential as an offensive arm to be used in combination with infantry. Even in the early seventies, however, it found no lack of advocates.

Nevertheless, foreign examples could exert a distinctly ambivalent influence upon British tactical thought. In some quarters, the radical ideas of the early seventies hardened into a new dogma as the Prussian campaigns receded. When suffused with extremes of offensive doctrine, the advanced tacticians' view of the modern battlefield often could be as unrealistic as the traditional notions they derided. This inflexible and increasingly academic approach, which placed all factors at a discount compared with the need for a massive build-up of rifles in the assaulting swarms, was closely associated with the rise of offensive doctrine in Europe, and therefore strongest in Britain amongst those who advocated close adherence to continental models. Charles Brackenbury provides an interesting example of the conflicting


elements in this movement. In one sense, he was very much the progressive; a pioneering advocate of large-scale manoeuvres and tactical reform, a champion of higher education in the Royal Artillery, and an early proponent of a General Staff for contingency planning.\(^{23}\) His total lack of active service set him somewhat apart from the "young army school" associated with Sir Garnet Wolseley.

The contents of Brackenbury's lectures and articles reveal his lack of interest in any developments save the recent changes across the Channel. He was not unaware of the implications for army organisation of Britain's imperial geography. But, with respect to tactics and training, he argued that only the Prussian campaigns offered useful guidance. He ignored the American Civil war and imperial warfare. Shortly after the Franco-Prussian war, Brackenbury urged the abandonment of the British line in favour of the swarm. As the line had superseded the column, he insisted, so must the flexible group formation replace the line. Company commanders should receive the responsibility for training currently shouldered by the battalion staff. The influence of "Prusso-phobists", he alleged, was preventing much of the significance of 1866 and 1870 from reaching the British officer corps. Over the next twenty years he urged these views upon R.U.S.I. audiences, with what must have been wearisome iteration to himself and perhaps to his hearers.\(^{24}\) Increasingly, his opinions reflected the growing popularity of offensive doctrine on the continent. Chairing an R.U.S.I. lecture in 1888, he criticized the speaker for his


preoccupation with minimizing losses:

We insist upon this wretched defensive idea, though there is not another army in the world that believes in it in the least, except perhaps the Turks, and they have suffered enough by it ... the real fact is that the side which has the greatest moral force wins.\(^{25}\)

C.B. Mayne, whom Ian Hamilton later regarded as the chief spokesman of the continentalist tacticians, supported Brackenbury's main ideas. Mayne stressed the need for individual intelligence as much as Maurice, but was a persistent critic of English training. Mayne inveighed against the "morally disastrous" effects of cover,\(^{26}\) and advocated an unremitting offensive once all preliminaries had led to the decisive moment:

Masses are required nowadays, as formerly, to force a position and drive the enemy out of it; the extended order of modern warfare is used as a means to collect the mass within assaulting distance ... At the instant of contact, therefore, a closed formation of some kind is required, whether in loose or rigid close order, both in the attack and defence.\(^{27}\)


27. Capt. C.B. Mayne, The Late Battles in the Soudan and Modern Tactics (Lond. 1884), 16-17. This replied to an article of the same title by Sir Patrick MacDougall in Blackwood's Edinburgh Magazine 135 (Jan.-June 1884), 605-10, which defended the traditional British line. See also Mayne's Infantry Fire Tactics (Chatham 1885), 193-94. This was, at one stage, prescribed for the officers' examination in the Hythe Extra Certificate (A.O. 1892, no. 26), but this was probably on account of its information on trajectories and velocities rather than its tactical doctrine. Mayne's final work, The Infantry Weapon and Its Use in War (Lond. 1903), indicates that the South African war had slightly modified his opinions.
This combination of new ideas and offensive dogma characterised the foreign training observed by British officers. On the one hand, almost all commentators on foreign manoeuvres remarked upon the intelligence displayed by subordinate commanders, and, in Germany, the considerable extent to which entrenchments were practised in the attack. As Major F. Trench wrote in 1894:

To anyone fresh from our own camps of exercise there is perhaps nothing more striking at German manoeuvres than the amount of independence and initiative allowed to the commanders of the smaller units ... 28

Others marvelled at the dexterity with which the German infantry threw up field defences. 29 But even in the German army, after painstaking preparations had been made for the attack, something of a bludgeon technique was used at its climax. Although prescribed tactical formations were forbidden by 1893 in the German drillbooks, 30 mock battles followed a fairly predictable pattern. After a prolonged artillery preparation, the units worked their way towards the point of irruption, building up the firing line in depth and density, until at the last, with regiments mingling indiscriminately in the battle-front:


The advance to the attack was executed with the utmost rapidity, and all minor forms of cover were absolutely neglected ...

Everything appeared to depend on the carrying out of the offensive. Where the attack succeeded all went well, ... when the attack was repulsed and a retrograde movement became necessary it did not appear to me to be carried out, as a rule, with so much skill and the losses in real warfare must have been terrible. 31

Henderson pointed to a similar pattern in the 1894 Austro-Hungarian manoeuvres. The preparation for the attack was meticulous, its execution focihardy, with the charging linesmen, conspicuous in two-tone blue, looking "like great patches of cornflowers on the bare hill'sides ...". 32

Manoeuvre reports also revealed how much further the cult of the offensive was taken in France than in Germany. A famous German pamphlet, translated into English under the beguiling title of "A Summer Night's Dream" did indeed advocate reckless offensiveness and a return to rigid formations. Received with scepticism in Britain, it was officially condemned in Germany. 33 Less restraint was evident in the


32. Foreign Manoeuvres 1894, 22, W.O. 33/55.

tactical training of France. By the eighteen nineties its manoeuvres could present sights fantastic in both senses of the word. In 1891 Captain J.F. Manifold witnessed an imaginary invasion across the Meuse by some 60,000 men, spread over a seven-mile front, pressing forward with great rapidity and in seemingly endless lines, breaking down the enemy's defence by sheer weight of numbers; "granted that one half of the first line is killed, let their places be filled up from the rear, but let the attack proceed at all costs". 34 Even where troops were supposedly in loose formation, piling up of the firing line often caused the men to close up shoulder to shoulder. Charles a Court (later famous as C. a C. Repington) noticed that umpires rarely put troops out of action during an advance. Once the forward sweep had begun, commanding officers found it almost impossible to alter its course. 35 At the peak of an action, troops seemed to abandon all caution. It was curious, Henderson wrote, to witness the opposing lines

... standing in the open, blazing away at each other at 200 or 300 yards range, with the lines beautifully dressed, and the second line lying down a short distance in the rear. 36

35. Foreign Manoeuvres 1894, 45-46 (report by Charles a Court), W.O. 33/55; similarly ibid, 42 (report by Col. H. Kingcote); ibid, 58 (report by Maj. D.P. Chapman); Foreign Manoeuvres 1895, 31-47, passim, W.O. 33/56.
A critical attitude towards continental models of training tended to develop along two quite different lines. On the one hand, it fostered the school of thought which considered itself both progressive and peculiarly British. On the other hand, resistance to foreign examples could reinforce contempt for all things new.

Many soldiers still brought a barrack-square mentality to the problems of modern warfare. Traditionalists such as Lord Chelmsford believed that J.F. Maurice had been led astray by continental theorists and pleaded for a return to rigid linear tactics. The fad of extended formations, lamented Colonel C.P. Evelyn, had rendered the British infantry less dangerous to an advancing enemy than they had been in the days of muzzle-loaders. Press of numbers alone, Lieut.-Gen. W.J. Williams repeatedly insisted, could carry infantry through modern rifle-fire. Captain William McTaggart deprecated proposals to introduce a small-bore rifle as the infantry arm:

... the capacity and effect of infantry fire is enormously overrated ... the weapon of the future, as of the past, is the bayonet. A strong, excited, beef-fed Englishman, Scotchman, or Irishman, can handle a bayonet in a way that


38. Comment upon Arundel, op. cit., 188.

no nation in the world can aspire to, and that no nation in the
world can withstand.  

It might be efficacious, mused Colonel Evelyn in the R.U.S.I., to arm
the rear ranks with pikes instead of rifles; what better way to
hasten the attack?  

Nevertheless, it may be stressed that such views were hardly
typical, either of the general tenor of tactical debate or of the
style of training towards the end of the century. The weight of
opinion either accepted the standard doctrine of the continent or
tended to favour ideas associated with the British or imperial school
of thought. By the final decade of the period under review, their
position on modern tactics and training had emerged with some
clarity. This development was closely linked with the tendency of
these reformers to examine foreign examples in a critical light.

Maurice was the herald in Britain of the new European tactics,
but even in 1872, writing as a subaltern of the greatest military
event of his generation, he maintained a measure of detachment.
The German army had indeed grasped the role of disciplined intelli-
gence in modern warfare, he wrote, "but an Englishman thought of it
first."  

The Englishman in question was Colonel George Gawler,
whose book The Essentials of Good Skirmishing was written in the spirit
of the Sorncliffe system of training established by Sir John Moore.  

40. "The Capacity and Effect of Infantry Fire", Army and Navy
Magazine 7 (Nov. 1883-April 1884), 260, 264.

41. Comment upon Lieut.-Gen. Sir Gerald Graham, "Infantry Fire Tactics",
J.R.U.S.I. 30 (1886), 264.

42. Maurice, Prize Essay, 11.

1837); J.P.C. Fuller, British Light Infantry in the Eighteenth Century
(Lond. 1925), and Sir John Moore's System of Training (Lond. 1925).
To Maurice, who published an edition of Moore's diaries in 1904, the qualities required in modern warfare were latent in British traditions. Certainly, light infantry training had something in common with the advanced tactics of the late nineteenth century. "The Life and especial mark of the good skirmisher", wrote Colonel Gawler in 1837, "is ACTIVE INTELLIGENCE ... The true summit of perfection in skirmishing is, the preservation of order in disorder and of system in confusion".44 Some years later, Captain Douglas Jones wrote to similar effect on the training of skirmishers.45 It would seem, however, that patriotic loyalties led Maurice to exaggerate the element of continuity. Until the Prussian campaigns, skirmishing was seen as a mere preliminary to the main encounter, and even Gawler wrote that the general body of the army should attain "to a state of unreflecting mechanism, with nothing of mind but attention ...".46

Nonetheless, the sense of historical continuity encouraged the growth of independent ideas. That reformers such as Wolseley and Maurice constantly studied and wrote about Britain's own military history was of more than academic significance.47 Other factors reinforced the growing tendency to view European developments with more detachment and in a broader perspective than had been customary at the outset of the period. These factors seem to have been threefold; the legacy of the American Civil war, the Russo-Turkish war,

44. The Essentials of Good Skirmishing, op. cit., 15.

45. A System of Company Drill, Company and Battalion Drill, covering the Front of a Battalion in all its Changes ... (Lond. 1855), 74-76.


47. See, for example, works by Wolseley, Maurice, and Evelyn Wood in the bibliography.
and the so-called second tactical revolution, arising from the introduction of magazine rifles and smokeless powder.

The work of Professor Luvaas makes it unnecessary to do more than to touch upon the first factor. Most British military writers who discussed the American campaigns adopted a slightly contemptuous attitude towards their supposedly irregular operations. The majority of writers on war ignored them altogether, as the titles alone of their books listed in the bibliography to this study indicate. In some quarters, however, a distinct sense of affinity with America's military experience was evident. J.F. Maurice, at first sceptical of the value of lessons from pre-breechloader days, later set his high estimation of the Civil war's significance over against the weight of continental authority. Wolseley, also initially a doubting Thomas, eventually accepted that the American campaigns were the first of the great modern wars. Henderson, the arch-exponent of a British school of training, was also Britain's leading student of the Civil war. In retrospect, Henderson regretted that the Victorian army had been so feebly influenced by American examples in comparison with continental:

48. The Military Legacy of the Civil War, op. cit.


50. Capt. J.F. Maurice, Austria Advantages and Defects of an Organization of the Battalion into 4, 6, or 8 Companies, as Illustrated by the Austrian Army (1878), 39, W.0. 35/32 and War (Lond. 1891), 107.

The result was that when manuals of tactics and instructions for field-exercise were required, the deductions of foreign theorists were accepted without question ... A kindred army, organised on the same voluntary system, making the same use of irregular levies, possessing the same characteristics, conducting operations under the same conditions of rough and wooded country, and continually fighting against space, was a far better model for the forces of Great Britain and her Colonies than the hosts of the Continent. 52

The Russo-Turkish war not only modified attitudes towards French and German offensive doctrine but drew widespread attention to the vital question of guns and entrenchments. The spectacle of less than 50,000 troops resisting the bulk of the Russian empire's mobilised forces for five months aroused universal interest and much perplexity in the military world. It became less easy to assume thereafter that modern wars were "sudden in their commencement and short in their duration". 53 To chart fully the reactions in Britain to the Russo-Turkish war would be a major project in itself. The ensuing discussion seeks only to bring out the salient features of the major writings in English on the campaigns in Bulgaria.

52. The Science of War (Lond. 1910), 119-20, and similarly 56-57, 148-52, chs. 8, 9, 10. (It is hoped that this chapter demonstrates that Henderson's opening statement was not entirely accurate.) On Henderson as a student of war, Jay Luvaas, The Education of an Army (Lond. 1965), 216-46, is excellent; Henderson's Stonewall Jackson and the American Civil War (Lond. 1898), is, of course, a classic military biography. For views similar to Henderson, see: Capt. H. Schaw, "The Amount of Advantage which the New Arms of Precision Give to the Defence over the Attack", J.R.U.S.I. 14 (1870), 379-383; Lieut.-Col. E.T.H. Hutton, (a leading proponent of mounted infantry) "Mounted Infantry and its Action in Modern Warfare", P.P.R.E. 16 (1890), 29.

The most widely read serious history of the war seems to have been that by the American Francis Vinton Greene. Compiled from Greene's official reports as American Military Attache at St. Petersburg, it is a classic of military narrative and exposition and is cited in almost every relevant book and article consulted by the present writer. Under the auspices of the Royal Engineer Institute, Capt. G.S. Clarke, the future secretary of the Committee of Imperial Defence, produced a British analysis of the war, comparable in substance to Greene's work. General Franz Todleben's official account of the Plevna defences was translated both for the Royal Engineers and the R.A.I. Institution. Both this institution and the R.U.S.I. were prompted by the 1877-78 campaigns to hold prize essay competitions on the subject of entrenchments and the defensive powers of breechloaders. The standard German account of the war was also, in due course, translated into English. A colourful


55. Capt. George Clarke, Plevna (pub. as vol. 5 of the P.P.R.E., 1880). Also see his "Provisional Fortification", P.P.R.E. 3 (1879), 254-46.


narrative by the cavalry reformer and soldier of fortune, Valentine Baker, supplemented these sober professional studies. Innumerable passing references to Plevna in the service and civilian press over the next twenty years show that it had become part of military legend.

As the first test since 1871 of a mass, conscript army equipped with breechloading rifles, the Russo-Turkish war was of particular significance. In scale and intensity of losses, its operations were of a kind with the Prussian campaigns. During the second battle of Plevna (30th July, 1878), for instance, nearly a quarter of the Russian forces engaged was killed or wounded. The third and greatest attempt to take Plevna, in which some 80,000 infantry were involved, caused losses of similarly awesome proportions: some 18,000 men over two days of fighting. But in its duration, the five-month siege of Plevna bore little resemblance to the major battles of the Franco-Prussian war. The fundamental point at issue was whether prolonged engagements fought around provisional fortifications would become a feature of future warfare in Europe. Amongst those who gave serious attention to the subject, it soon became habitual to stress that henceforth troops would be obliged to entrench in the attack as well as the defence. On the other hand


60. Greene, op. cit., 200, 256, 224-61.

hand, it seemed inconceivable to most scientific soldiers that mere earthworks could long withstand the power of modern artillery, if properly handled. This conviction seemed to be given substance by the three major studies of the war, all of which stressed the Russian misconduct of the campaign.

Von Trotha pointed to the characteristic piling-up of Russian infantry in a disordered swarm against the earthworks, futile attempts to exploit successes with the bayonet rather than by fire, the virtual absence of artillery manoeuvres, and over-reliance upon long-range shelling. These factors, to his mind, satisfactorily explained the prolonged success of Osman Pasha's defence. 62 Clarke wrote along identical lines. The failure of the grand assault of 11 September, for instance, could be explained, in his judgment, on purely tactical grounds. Russian attacks were universally frontal, and artillery fire ceased as soon as the infantry began their advance. Supplies of entrenching tools were meagre; ten spades, three pickaxes, and one crowbar to each company. On the night of 11 September, exposed troops frantically scraped out shallow depressions with bayonets and canteen lids. It was only such military ignorance, Clarke argued, that allowed the operations of 1877 to develop into a regular investment. Plevnas of the future would have to be carried at once:

... for the strain of modern war will not stand a five months' siege of every strategically well-placed village which can be garrisoned and provisioned, and a study of the lessons afforded

62. Von Trotha, op. cit., 210-11, 222.
by the Russian mistakes shows clearly how disasters similar to that above are to be avoided.\textsuperscript{63}

In Greene's work, the defects of Russian strategy and tactics, frictions within the high command, and the poverty of intelligence and reconnaissance were presented as object lessons in military incompetence. The reckless exposure of senior officers in battle typified the way in which modern technology and eighteenth-century methods were combined to disastrous effect; one general was shot a hundred yards from the main redoubt.\textsuperscript{64} The abundance of such evidence permitted Greene to reach the conclusion that:

\begin{quote}
... the Russians were defeated at Plevna, not because the position was impregnable, nor because they did not have sufficient forces, but because they were ignorant of the enemy's position, and failed to concentrate their efforts upon the decisive points.\textsuperscript{65}
\end{quote}

None of these writers considered the possibility that it was not military ineptitude alone which had prolonged the three battles of Plevna.

Once the redoubt had fallen, the mobile character of the subsequent operations, with the Russians' remarkable passage of the Balkans in the winter of 1877-78, was less at odds with contemporary preconceptions. Similar reassurance was offered by the well-executed campaign in Armenia (April-December 1877). It was not difficult,

\textsuperscript{63} Clarke, \textit{op. cit.}, 141-42, and 86-142 (for third battle of Plevna). Similarly 26 (assault on Nicopolis, 15 July 1877), 54, 33-58 (first and second battles of Plevna).

\textsuperscript{64} Greene, \textit{op. cit.}, 196.

\textsuperscript{65} \textit{Ibid}, 259, and 185-202, 202-23.
therefore, to regard Plevna as an aberration; significant, but as an indication of what to avoid rather than of what was likely to occur in a major war. This view was strengthened by the contemptuous opinion most British had of the Turks and Russians as martial races. "These wretched Turks were governed by a lot of intriguing women", Thomas Maguire remarked wapishly to the Irish Military Society. An anonymous contributor to the United Service Magazine wrote of the Russians, Bulgarians, and Rumanians:

All three races are not only avaricious and untruthful, but to these undesirable qualities are joined the most abject meanness and the most detestable profligacy. In sensuality their feelings are not controlled by either law, conscience, or honour, while princes and peasants are alike barbarous in their manners, resembling children in their amusements and women in their resentments.

Nonetheless, the battles around Plevna did provide another great model of European warfare, and one rather different from the imaginary campaigns fought out in continental manoeuvres. Swayed by the prevalent interpretation of the Russo-Turkish war, British commentators accepted that artillery could be effective against the deepest of entrenchments. Equally, many stressed that artillery must cooperate with infantry, and that junior officers must learn to devise, and their men to

construct, provisional fieldworks. A practical response was soon found to these appeals. The predominance of the technical aspects of gunnery in the education of artillery officers was gradually modified. Practice camps were established at Lydd (1882), the Isle of Wight (1888) and, most important, at Okehampton (1875). The last became a testing ground for new ideas, particularly for ways of circumventing or destroying entrenchments. As already noticed, an earnest endeavour was made in the manoeuvres of the 1890s to coordinate guns and infantry, and the elementary mistakes that occurred at least received severe correction. In 1891 the Commandant of the School of Gunnery, Shoeburyness, was appointed Inspector of Artillery Instruction and, in that capacity, was to examine the practice camps annually and ensure uniformity of tactical and other practices. How far a common doctrine developed as a result of these innovations is another question. The views of Colonel C.J. Long, commanding the artillery at Colenso in December 1899, who allegedly reduced artillery tactics


70. Above, p. 90, notes 46, 47; and for an illustration of how pains-taking artillery preparation had become a normal part of the attack by the end of the century: Lieut. G.F. MacMunn, "The Artillery at Dargai", Proc. R.A.I. 25 (1898), 173-78.

71. A.O. (1891), no. 47.
to the axiom that "the only way to smash those beggars is to rush in at them", suggest that in some quarters new ideas had not penetrated very far. Moreover, as late as 1897 the Field Artillery Service Handbook possessed no section on tactics. Similar reforms refined infantry training. As a result of the Russo-Turkish war, experiments with entrenching tools were carried out and a light portable spade adopted as part of infantry equipment. Officer and N.C.O. classes for instruction in field entrenching were authorized in 1887. The modernity of these developments should not be overestimated; in 1888, for example, the standard trench was only five feet long, two and a half wide, and one and a half deep.

A critical attitude towards the continent had become pervasive in British tactical writing by the 1880s, but it was finally reinforced by the "second tactical revolution", a term used by G.F.R. Henderson to describe the changes in warfare wrought by the introduction of smokeless powder, small-bore repeaters and, by the turn of the century, quick-firing artillery. Smokeless powder first seems to have been used by the German army in manoeuvres of 1889. Early in the following year its infantry were issued with a magazine rifle. Full-scale experiments with repeaters were conducted in Britain from 1887, and in 1890

72. J.B. Atkins, The Relief of Ladysmith (Lond. 1900), 139.
73. Hansard, 3rd. series, 244 (27 March 1879), col. 1863; ibid, 261 (10 May 1881), col. 173.
74. G.O. (June 1887), no. 80.
the .303 Lee-Metford was introduced.77 By the late 1890s every European power had quick-firing guns under trial.78 In one important respect, these inventions put all European armies on a par. None had other than theoretical guidelines whereby to assess the implications of the new technology for modern warfare. Henderson was quick to point out that now, more than ever, a critical assessment should be made of the prescriptive doctrines of continental tacticians.79 As Maurice later pointed out in the official history of the South African war:

The British Army in 1899-1900 was dealing, as no European army has yet done, with the new conditions of war. The weapons in the hands of the opposing forces were in point of efficiency about in the same proportion to those with which thirty years earlier the contest between France and Germany had been fought out then stood to the Brown Bess of Waterloo.80

The tactical views of the British school, therefore, emerged from the diverse influences of insular traditions, foreign examples, and new technology. On the issues connected with tactical forms and the relevance of colonial warfare the distinctive standpoint of these reformers is apparent. But on the question of discipline, they were at one with all other reformers. The ensuing discussion considers all three aspects of tactics and training, taking the last first.

77. Hansard 3rd. series, 319 (19 Aug. 1887), col. 1100; ibid, 338 (22 July 1888), col. 989; ibid, 349, (3 Feb. 1891), cols. 1631-84 (debate on new rifle).


79. The Science of War (Lond. 1910), 73.

By the 1880s, the concept of a new discipline, based on trained intelligence rather than mechanical obedience, had become a staple of military discussion. In Captain Ian Hamilton's polemical pamphlet of 1885, *The Fighting of the Future*, the concept found brilliant expression. The purpose of this tract was twofold; first, to draw public attention to current deficiencies in training, and, second, to counter the influence of military writers who were, in Hamilton's opinion, slaves to continental teaching. His particular bêtes-noirs were the textbook tacticians Francis Cler3r and C.B. Mayne. Reformers such as these, Hamilton argued, merely wanted Britain to ape the armies of the great powers. If she ever was to perfect a military system based upon her imperial needs, she would have to strike out on an independent path:

Through all the changes which have lately passed with bewildering rapidity over the British Army, no attempt at originality is anywhere visible. The line formation, which, with its comparatively greater fire front, used to roll up heavy columns whenever it met them, had long stood far in advance of any continental system; but when that line was outdone on its own principle by the Germans, who used a still more extended formation ... we seemed to lose heart, and instead of trying to regain our former pre-eminence, we have contented ourselves with slavish imitations from the Prussian. As it is evident that we can only carry out our mimicry on a very miniature scale, such a course must, if persevered in, keep us immeasurably the military inferiors of our model.  

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81. *The Fighting of the Future* (Lond. 1885), 18, and, for references to Cler3r and Mayne, 16. Also see his *Listening for the Drums* (Lond. 1944), 150.
Like most manifestoes, the *Fighting of the Future* dealt in broad asseverations, and made few concrete proposals. Hamilton's basic contention was simply that, to produce the small, highly professional army which Britain needed, mechanical discipline must be eradicated and troops trained primarily for colonial and imperial warfare. As an extreme imperialist, Hamilton believed that the army's future lay solely within the empire, and that to prepare to meet European armies was profoundly misguided. But his tract was of real significance as an indication, albeit an exaggerated one, of the current mood of certain British reformers.

Whatever Hamilton liked to argue, the new discipline was not a preserve of the imperial school. In 1889, the subject set by the R.U.S.I. Council for its annual prize essay was: "Discipline: Its Importance to an Armed Force and the Best Means of Promoting and Maintaining It". The published submissions, reflecting otherwise a wide spectrum of military opinion, all expressed the conviction that modern weaponry entailed intelligent rather than mechanical training and the exercise of appropriate responsibility at every level. These axioms began to appear in elementary textbooks and were embodied in official doctrine.82

Regimental training was a less fruitful ground for new ideas than the debating halls of the military societies, but theoretical discussions were not devoid of practical results. A succession of minor reforms were introduced during the 1880s, and doubtless owed much to

Wolseley, who, as Adjutant-General to the Forces 1885-90, directed the training of the home army. Radical improvements in musketry instruction were recommended by a committee which examined the subject in 1881. Its report urged that firing be practised at extreme ranges, over broken country, and at moving targets, and that troops should be put through an annual course of training by their company officers and receive additional ammunition. The ammunition supply was increased as recommended and at least one commander enthusiastically adopted the proposed methods of training before their general and belated acceptance in the last decade of this period. During his command of the Eastern District (1885-89), Sir Evelyn Wood instituted an elaborate system of flexible drill, giving especial freedom to company commanders and becoming much incensed with those who were too indolent to take advantage of it. Scarlet as a battledress was discredited by the Colour Committee of 1883. Brick-red was seen for the last time on a British field of war during the Egyptian campaign of the previous year. During the 1890s, the question of a single dress for service in peace and war was discussed, but it was not until 1902 that troops trained in the same uniforms in which they were to fight.


Junior officers were eventually authorized to exercise more responsibility. In 1883 regimental instructors were abolished in line battalions and their duties assumed by captains and subalterns. Four years later the role of the adjutants of the home battalions was restricted by the appointment, as their assistants, of subalterns holding the Extra Certificate from the School of Musketry at Hythe. This institution, established in 1853, had become a centre for imaginative innovations in training, much to the amusement of army traditionalists:

I was gay and blythe
When I went to Hythe
A soldier frank and free
I was full of fun
Till I shoulder'd a gun
At the School of Musketry.

I was spread out flat
On a cocoa-nut mat
On a gravelly rifle-range;
I lay on my chest,
And couldn't digest
In that attitude cramped and strange.

Though "Q" and "R"
Were not so far,
I couldn't come off that day;

88. Hansard, 3rd. series, 279 (10 May 1883), col. 382.
89. G.O. (April 1887), no. 41.
The moment I got
Upon that spot
The target vanished away. 90

In the debate over tactical forms an attempt was made to establish a distinctly British tradition, whereby training should relinquish the rigid drill of the past but avoid the massed disorder of continental armies. At the outset of the period, there was a fairly straightforward antithesis between the time-honoured British line and the new swarm formation of the Prussians, and, as shown above, most reformers favoured the latter. By the 1880s it was being widely argued that the new discipline alone was insufficient to prevent extension from degenerating into chaos, and that some sort of basic line formation ought to be retained. Perhaps coincidentally, the view that admixture of units had been carried too far in continental armies tended to go hand-in-hand with resistance to the extremes of offensive doctrine. F.N. Maude neatly summed up the opposing tendencies of the British and German schools of thought by the 1890s:

Both start from the events of 1870 primarily, and yet, after 20 years, whereas in Germany we see steadiness on parade and faith in the offensive raised to the first place in the soldier's training, in England the advantages of the defensive and the uselessness of smartness under arms are accepted almost unanimously as the cardinal points in our military faith. While in Germany everything centres on the

destruction of the enemy first and the rest afterwards, in 
England the avoidance of loss by the employment of suitable 
formations is elevated to the dignity of a dogma. 91

The most elaborate statement of a British or at least Anglo-Saxon 
school of tactics was made by G.F.R. Henderson in the series of lec-
tures and articles later published posthumously as The Science of War. 
Henderson argued that the major continental armies had all permitted 
the independence of units to go too far. The principle of company 
initiative should be combined, he insisted, with the British tradition 
of company subordination to the tactical leading of the battalion. 
Henderson was confident that existing British forms, if imbued with 
the new discipline and trained on flexible lines, would provide the 
answer to current tactical problems. "We have no need to ask 
another nation to teach us to fight", he wrote. 92 Such views found 
many proponents. The leading Scots volunteer J.H.A. MacDonald 
repeatedly contended that the British compromise between rigid forma-
tions and the "disorder swarm" should be maintained. In so doing he 
was attacked both by traditionalists, and continentalists such as 
Lonsdale Hale and Lieutenant-General Sir Beauchamp Walker, but found 
support from Maurice and Wolseley. 93 During the 1890s the United 
Service Magazine, edited by Maurice from the beginning of the decade, 
became a virtual forum for arguments on behalf of insular traditions

91. "Twenty Years of Tactical Evolution in Germany", P.P.R.E. 20 
(1894), 103, and 105-30.

92. The Science of War (Lond. 1910), 130, and 117-64, espec. 139-40; 
and similarly Henderson's "The Offensive Tactics of Infantry", U.S.M. 
n.s. 7 (April-Sept. 1893), 959-60, and "The Training of Infantry for 
Attack", ibid, n.s. 19 (April-Sept. 1899), 491-512.

93. J.H.A. MacDonald, "The Changes Required in the Field Exercise for 
Infantry", J.R.U.S.I. 29 (1885), 143-79; "Infantry Training", ibid, 
34 (1890) 615-49.
of tactics and training. One officer, indeed, went to far as to write: "I must plead guilty to hating the very name of Cerinan when it is used for purposes of drawing comparisons between them and us. It is only with reluctance that I make any reference to them and to their method of conducting an advance."\(^94\)

Ideas associated with the new discipline and the British view of tactical forms proved to be equally influential in transforming the infantry drill regulations. On the eve of the Franco-Prussian war, the field exercises were drawn up on strictly Wellingtonian lines. Open order was to be used sparingly and kept under tight control. Skirmishing was emphatically only a supplement to the real attack, for which undeviating linear tactics were prescribed. Nonetheless, the light infantry tradition persisted. Local topography and the individual judgement of officers, it was emphasized, should guide extended formations on the rare occasions when their use was advisable.\(^95\) The 1874 edition of the *Field Exercise* contained nothing that was new. In 1877, for the first time, the influence of contemporary ideas was apparent.


A section on "extended order" replaced the regulations on skirmishing, and some attempt was made to explain basic tactical principles. Some advice on manoeuvres was tendered, with the warning that a pettifogging exactitude was not to be insisted upon during field days. It could no longer be assumed that good drilling was the answer to the demands of modern tactics.

The subsequent edition explicitly adopted the general form of the continental attack. Offensives were to be made in two major lines, the first to be divided into fighting line, supports, and reserves. Nevertheless, the British line remained the standard minor tactical formation. It was not until the first edition of Infantry Drill (1889) that some independence of thought was manifest. The flexible British line was to be retained, and the battalion to remain the chief tactical unit. Both in this and succeeding editions admixture of units above the battalion was deprecated. Although normal formations were laid down, it was pointed out that these should be tailored to contingent situations. A detailed shelter-trench exercise was included in the infantry drill, and direct control of fire committed to company officers. The time-honoured mythology of the attack was perpetuated in some respects. Concealment during the culmination of an engagement was virtually forbidden, and the drill-book drew a typical picture of the final rush; British lines storming entrenchments with cheers, beating drums, and bayonets fixed. Nevertheless, these regulations constituted a remarkable acceptance in official doctrine of the altered conditions of war, and the theme of

97. Field Exercise and Evolutions of Infantry (H.M.S.O. 1884), 212, 213, 289, and 287-312.
98. Infantry Drill (H.M.S.O. 1884), 385; Ibid, (1892), 97; Ibid, (1893), 100-02.
the new Infantry Drill was that:

Tactics should be studied rather than drill, accidents of
the ground rather than precision ... The success of every
attack depends very much upon the individual action of the
soldier fighting in extended order. This method of fighting
demands not only greater individual exertion and intelligence,
but far higher and more complete instruction and training both
of officers and men than mere parade movements. 99

In the drillbook of 1892 the principle of subordinate respon-
sibility was carried to its logical conclusion and a standard form of
attack explicitly forbidden. The manner in which this innovation
was announced had a ring of modernity; it was embodied in a provision-
al edition so that officers should have some opportunity for discussion
before a more definitive drillbook should be compiled. 100 Plainly,
the adoption of such new ideas owed much to the European-wide climate
of tactical opinion since the Austro-Prussian war. But British
reformers had made them very much their own. The British line
remained, as did the supremacy of the battalion. The most novel
passages in the 1889 Infantry Drill were written by Wolseley himself,
only a year after fixed formations in the attack had been proscribed
in the German drillbook. 101 It would be interesting to know who
wrote these words in the Infantry Drill of 1893 (111):

99. Infantry Drill (H.M.S.O. 1889), 119, and 340, 205-26, 382, and
470-94.

100. Infantry Drill (Provisional H.M.S.O. 1892), 94, 110, 111;
Hansard, 4th. series, 3 (31 March 1892), cols. 352-53; A.O. (June
1893), no. 126.

101. Wolseley to the Duke of Connaught, 30 Sept. 1889 Wolseley Papers,
Private Letter Book, 103-19, W/PLB 1; Spenser Wilkinson, "Military
Literature and the British Army", U.S.M. n.s. 3 (April-Sept. 1891), 512;
Von Lobell's Annual Reports on the Changes and Progress in Military Matters
The conditions of modern warfare render it imperative that all ranks shall be taught to think, and, subject to general instructions and accepted principles, to act for themselves. Every skirmish, every fight, influenced by many different considerations, offers a problem which can only be grappled with at the time, and cannot be treated under set conditions.

Controversy over tactical forms extended to one of the most vigourously debated subjects in this period: battalion organisation. By 1880 every major army in Europe had adopted the Prussian organisation of a battalion into four companies. The British battalion alone had eight. A large company gave scope for subdivisions—such as the German zuge—which could act with a measure of independence. In the German army, the company was the basic tactical unit and, in the attack, provided its own supports and reserves until the higher units began to mingle in the firing line. Company subdivisions, or the group system, were advocated on occasion in Britain but never introduced into the Victorian army. In accordance with the organisation of their battalions, junior officers in the major continental armies received a degree of responsibility and education substantially greater than that of their British counterparts. In Italy, Russia, Austria, and Germany, infantry officers underwent postgraduate training at

102. An Outline of the Attack Formations for Infantry in the Austrian, French, German, and Italian Armies (H.M.S.O. 1881), 3-6, 6-9, 9-12. Tracts 1879-81; Emory Upton, The Armies of Asia and Europe ... (N.Y. 1878), 270-75; Capt. J.W. Buxton, Reports on the Changes which have been Introduced in the Organization of the Italian Army (Nov. 1577), W.O. 33/32.

institutions of higher military education once they had qualified at equivalents to the R.M.C.\textsuperscript{104} Save for Hythe, the Victorian army possessed nothing resembling these infantry schools of the continent, although examinations for promotion were authorized for infantry officers in 1872 and made more rigorous in 1880.\textsuperscript{105} Moreover, schools for non-commissioned officers were widespread on the continent. Again, save for occasional specialized courses in range-finding and signalling, there was no parallel to these in Britain.\textsuperscript{106}

All British reformers accepted, after the Prussian campaigns, that subalterns and captains should learn to exercise a greater degree of responsibility than that to which they had been accustomed. The question naturally arose as to whether this could be facilitated by introducing the double company and reducing the control of battalion commander and staff over junior officers. A remarkable amount of heated debate was soon generated over the question of company size, quite disproportionate to its significance. The interest aroused by the subject, Charles Brackenbury remarked contemptuously, typified the narrowness of military thought in Britain.\textsuperscript{107} Nonetheless, most

\textsuperscript{104} Upton, op. cit., 129-33, 152-58, 172-81; Capt. W.S. Cook, \textit{Memorandum on the System of Military Education in Austria} (Topographical and Statistical Dept. 1872), 1, 4-6.


\textsuperscript{107} Comment upon Col. Edward Clive, "The Influence of Breech-loading Arms on Tactics ...", \textit{J.R.U.S.I.} 22 (1877), 848.
commentators appreciated that battalion organisation was relevant to current and major issues of tactics and training.

The opposing groups clashed in debate at the R.U.S.I. in 1877. Colonel Edward Clive, the lecturer on the occasion, urged that Britain follow France and Germany in adopting double companies. He was supported by Colonel Lonsdale Hale, General Sir Beauchamp Walker, Military Attaché to Prussia during the 1870-71 war, and Colonel Sir Lumley Graham, prominent as a translator of German works. A number of speakers then rose to defend, at inordinate length, the English system. In Lord Wolseley, who chaired the meeting, they found an energetic defender. Large companies, he insisted, were no more pertinent to military efficiency than was the Prussian spiked helmet. Small companies, to his mind, were admirably suited both to the fragmented conditions of the modern battlefield and to the detached duties so often demanded of troops in irregular warfare. He was emphatic that it was this, rather than the hypothetical requirements of a great continental war, which should guide the development of British drill.

G.P.R. Henderson and the artillerist Henry Hime were amongst the more notable reformers to concur with Wolseley, and Hime criticized even Maurice for his ambivalence over the issue. It was thought

108. Clive, ibid, 824-54.


of sufficient importance to be discussed within the War Office during the late 1870s. General Sir Charles Ellice, the Adjutant General, agreed with Wolseley and developed an intricate argument on behalf of small companies which, at every stage, compared British with continental circumstances. "In this matter", he concluded, "as in many others, to build a Prussian house on English foundations, would be a costly if not a dangerous exercise." Wolseley reiterated his opinions in private correspondence, and commented in his usual biting way upon the tendency of some of his colleagues to adopt, "monkeylike", the trappings of the German success. In the event, small companies were preserved until a new era of military reform was beginning in 1902. The debate over company size may not have been of much practical significance, but it sheds an interesting sidelight upon the temper of army reform in the late nineteenth century.

Few reformers of the British school would have agreed with Wolseley and Ian Hamilton that the army should direct its organisation and training solely according to the needs of imperial rather than European warfare, but all were convinced that small wars provided useful, if limited, lessons. With respect to tactical thought and perhaps to training, colonial warfare was of modest importance. On

111. "Memorandum by the Adjutant General on proposal to reduce the number of Companies in a Battalion from 8 to 4", (8 March 1877); Memo. by Maj.-Gen. Sir C. Wolseley on ibid, (6 March 1877); Maj.-Gen. Sir Patrick MacDougall, "On the Proposal to change the Organisation of our Field Battalions ...", (8 March 1877), supporting Ellice. All W.O. 33/34.

112. "Notes upon Sir Daniel Lysons' Attack Formation. Memorandum of the 9th March 1882 by Maj.-Gen. Sir Archibald Alison", m.s., with marginilia by Wolseley. Wolseley Papers, W/MEM 1; Wolseley to Duke of Connaught, 30 Sept. 1889, Private Letter Book, 103-119, Wolseley Papers, W/PLB 1. Cambridge and Wolseley had one of their rare moments of agreement over this question; see Hansard, 3rd. series, 260 (5 April 1881), col. 714.
occasion, it could provide a negative influence. Obviously, in an encounter with an enemy armed with grossly inferior weaponry, it was legitimate to adopt tactics which would have been suicidal in European warfare. While the more perceptive officers took this fact for granted, the less acute assumed that the efficacy of dated tactics in irregular campaigns vindicated traditional forms of training.

Victorian military history is dotted with celebrated examples of commanders employing to resounding success methods obselete by current European standards. For the engagement at Gingzlov during the Zulu war, Lord Chelmsford arranged his men kneeling, in a massed, four-deep formation. At Ulundi they formed compact lines three-deep. Half the troops were standing upright and all fired by volleys. At El Teb, during the Sudan campaign, the Dervishes were actually charged by Highlanders in square, and the fighting became almost mediaeval in character:

The battle was too fierce to permit of time to empty cartridges, let alone load rifles. These men and their comrades opposed steel with steel ... Two Highlanders made over a dozen of their foemen bite the dust before they fell from loss of blood sustained by cuts from thrown spears. While they fought they used not only their rifles, the butts as well as the bayonets,
but when the Arabs closed in they hit out with their fists in
the scramble. 115

Despite his experiences, Lieutenant-General Sir Gerald Graham, comman-
der at El Teb, was of advanced views. 116 But to those who believed in
fixed forms and the innate courage of the British soldier, such episodes
confirmed, as one officer remarked, the value of rigid drill and the
"shoulder to shoulder line". 117

In contrast, reformers of the British school stressed the positive
aspects of small wars. Initially, some reformers attempted to draw
lessons from colonial campaigns of immediate relevance to conventional
warfare. In his history of the Ashanti war of 1873, Henry Brackenbury
argued valiantly (and perhaps partly from loyalty to his chief) that
Wolseley's directions for bush-fighting in West Africa embodied the
essence of modern tactics. Shortly before the advance to Kumasi,
Wolseley issued a memorandum to the troops which gave them advice on
jungle fighting; to be vigilant in outposts and scouting, to practise
concealment, and so on. 118 To Brackenbury, recently returned from
France, these sensible but self-evident maxims, when issued by a

115. Bennett Burleigh (War Correspondent for the Daily Telegraph),
Desert Warfare: Being the Chronicle of the Eastern Sudan Campaign
(Lond. 1884), 174-75, 49.

116. "Infantry Fire Tactics: Attack Formations and Squares",

117. Comment by Col. Davies upon Maj. C.A. Barker, "Some Suggestions as
Similarly see: Chelmsford’s evidence before the Report of the Committee
on Musketry Instruction in the Army, op. cit., 36-40, and his comment
upon Barker, op. cit., 185-86; Anon, "A Dissertation on Square versus

from the Official Documents (Lond. 1874), I, 361-66.
general whom he admired, became of especial significance:

Let those who think that warfare of this kind is not calculated to teach lessons useful for warfare on a grander scale read this order, and see whether it does not breathe in every line the spirit of the teaching of the war of 1870. It recognises, amongst other points, the vital importance of giving independence of action to small units, and proposes to carry out on this system exactly what had been done by our fathers, in the days when the Light Division in the Peninsula could beat all other troops in the world in skirmishing... 119

By the next decade, however, a clear recognition of the differences between conventional and irregular warfare had emerged. Well before the publication of Callwell's famous Small Wars in 1896, several writers sought to prove that imperial warfare constituted a distinct genre, and required special skills and training. 120 Even as a subaltern, Charles Callwell became known as an expert upon small wars, and in 1887 won an R.U.S.I. Military Prize for an essay discussing their professional significance. 121 His work received semi-official approval when his Small Wars was published by Her Majesty's


121. "Notes on the Tactics of our Small Wars", Proc. R.A.I. 12 (1881-84), 531-52; "Notes on the Strategy of our Small Wars", ibid, 13 (1885), 403-20; "Lessons to be Learnt from the Campaigns in which British Forces have been employed since the Year 1865", J.R.U.S.I. 31 (1887), 357-412.
Stationery Office and under the auspices of the Intelligence Division.

Callwell and like-minded authors all stressed that unmodified European methods were inapplicable to irregular operations. The point was made admirably by Callwell himself:

The conduct of small wars is in fact in certain respects an art by itself, diverging widely from what is adapted to the conditions of regular warfare, but not so widely that there are not in all its branches points which permit comparisons to be established. 122

This general perception was significant, but in analysing small wars on a theoretical plane it was difficult to go beyond commonsense. Even Callwell could slip into banality. He closed a long discussion, for instance, on the adoption of the breechloader by North-West frontier tribes with the lame conclusion "that the result of this traffic in arms will be to sensibly increase the dangers to which the forces of civilization are exposed". 123 Useful as small wars were as tests of new weaponry and equipment, they proved to be a barren source for tactical lessons which could be applied in training. A brief section on "Savage Warfare" was included in the 1893 drillbook, but it merely sanctioned close formations if warranted by the occasion. 124 No attempt was made to distinguish between conventional and irregular operations in home training.

122. Small Wars (H.M.S.O. 1896), 21.
123. Col. Charles Callwell Tirah 1897 (Lond. 1911), 151-52.
The performance of the army in small wars was, however, of immediate relevance to the controversy over short service. Every success in imperial warfare was grist to the reformers' mill, and even when circumstances were ambiguous they tended to defend the reputation of the short service soldier. Conversely, his critics found that small wars provided ample evidence wherewith to strengthen their case against the new system. One of the better-known encounters between the opposing schools occurred during the Zulu war. Surveying the chaotic situation upon his arrival in South Africa as commanding general, Sir Garnet Wolseley told the Duke of Cambridge: "It is no question of young soldiers, but of bad leading." Anti-Cardwellites judged otherwise, and were confirmed in their prejudices by a supposedly impartial observer, Sir William Russell. In a notorious Daily Telegraph article of the 21 November 1879, the great journalist launched an astonishing attack upon the character and morale of the modern British soldier. Troops in South Africa, he wrote:

... are a positive terror to peaceable citizens ... Women are flying to the large towns, where there are some guarantees of safety in the shape of police, as though they were hunted out by the Zulus or Swazis.

Undoubtedly, it was remarked in the United Service Magazine, Cardwell was to blame for this collapse in morale and discipline. However valuable during the Crimean war, Russell's searing rhetorical skills were misapplied in this case. Magistrates' reports conclusively

demonstrated the exaggeration and even fantasies of Russell's assertions. Corroboration of his charges were requested by the Natal Witness, which received no response. Indeed, for the entire force in South Africa, only eight convictions for assault and eighteen for theft were recorded from the 1st July to the 10th October, 1879. The local press as well as British generals testified to the admirable behaviour of the troops. Even Chelmsford conceded that short service soldiers lacked nothing in military discipline so long as (he added as a tactical conservative with an eye to the main chance) they were moved in close formations and under the tight surveillance of their officers.

Wolseley himself was deeply angered:

I now hear that all these Royalties who wear the outward appearance of soldiers, have agreed to back up Billy Russell in his controversy with me because they hope that by so doing they may injure or break down the present army system.

During the official enquiry into the allegations he emphatically defended the performance and reputation of the rank and file.

But intent as he was to exculpate short service soldiers from blame

130. Wolseley to Lady Wolseley, 11 April 1880, Wolseley Papers, W/P 9, and Wolseley to Childers, 2 Feb. 1880, *op. cit.*
for military defeats, Wolseley did not hesitate to praise them in victory. Writing of his suppression of the Basuto chief Sekukuni in 1880, Wolseley commented that the young soldiers whom "H.R.H. is never tired of abusing behaved very well". Wolseley's famous Tel-el-Kebir dispatch gave his infantry the highest encomiums, and explicitly criticized those who still harped upon the youth and unsteadiness of the modern British private.

Experiences in colonial warfare contributed directly to another area of tactical change; training of troops with machine-guns. From the early 1870s onwards, this was one of the leading questions of the day, to use a contemporary phrase. Discussion focused, typically, upon the exact status the new arm should possess; whether it ought to be integrated with artillery or infantry, or form an independent corps. Most commentators were agreed, however, upon the importance of machine-guns, and felt that their performance in small wars should be thoroughly examined. Such debate was strictly professional, and the machine-gun's potential for human destruction was treated in a clinical manner.

In particular, the journal of the R.U.S.I. became a forum for advocates of machine-gun corps, who frequently adduced examples from colonial wars in support of their arguments. Even mishaps such as the jamming of the Gardner at Abu Klea in the Sudan (17 January 1885), a matter actually raised in the Commons, failed to dampen their enthusiasm. As Captain E. Rogers remarked:

It can, indeed, scarcely be doubted, that as an auxiliary arm, Gatlings are peculiarly suited to colonial defensive operations as well as for retaliating demonstrations against troublesome neighbours, in countries where our enemies are numerous but ill-armed, where roads are few and unsuited to wheel traffic ...  

Practical changes followed in the wake of theoretical discussions. Chelmsford used Gatlings at Ginginhow (2 April 1879) and Ulundi (4 July 1879), the armoured train at Alexandria in 1882 was mounted with a Nordenfelt and Gatlings, while their use in the Afghan and Sudan campaigns of 1879-80 and 1884-85 is a matter of common knowledge.  


136. Narrative of the Field Operations Connected with the Zulu War (H.M.S.O. 1881), 162, 164; Col. J.P. Maurice, Military History of the Campaign in Egypt (Lond. 1887), 14.
Finally, after prolonged experiments at Okehampton, the War Office in 1887 enforced the principle that machine-guns should form part of the standing equipment of the home army.\footnote{Capt. R.H. Armit, "Machine-Guns, their Use and Abuse", \textit{J.R.U.S.I.} 30 (1886), 37; \textit{Hansard}, 3rd. series, 311 (25 Feb. 1887), col. 577.} By 1893 every brigade of infantry possessed a machine-gun corps maintaining two guns, some battalions held additional guns, and a proportion of officers and N.C.O.s were annually trained in their use.\footnote{\textit{Army Book}, 156, 159.} The fact that this service was not represented in any other European army during the nineteenth century indicates that, at least in one respect, British reformers were displaying a more flexible attitude than their continental counterparts.\footnote{\textit{Ibid}, 507.} While the Germans and French looked back to the unhappy performance of the mitrailleuses in 1870, the British had first-hand experience of the machine-gun's dreadful efficacy in war.

The period under review witnessed a transformation of tactical ideas, but it took a generation or more to work out their implications. When the British army was forced to grapple with the conditions of the magazine rifle battlefield, new ideas were still at an early stage of implementation. Enough evidence of practical change exists, however, to make nonsense of the offhand condemnations of nineteenth century training so often found in contemporary and historical writings. Statements to the effect that the army as a school for war resembled in 1899 "nothing more or less than a giant Dotheboys' Hall",\footnote{L.S. Amery (ed.), \textit{The Times History of the War in South Africa} II (Lond. 1902), 33.} that the "Brown Bess mind predominated, looking upon war as an unending
succession of Peninsula engagements—of shoulder to shoulder formations, of volleys in rigid lines and of wall-like bayonet assaults", require more than qualification; they are simply incorrect. After its initial disasters in 1899, the army's adjustment to the tactical conditions of South Africa owed much to prewar developments in thought and training. Lord Roberts' famous "Notes for Guidance in South African Warfare", like his preface to the Infantry Training of 1902, were not simply a response to second Boer war. They read, in fact, very much as a textbook summary of the advanced tactical ideas of the previous two decades. Insofar as faulty tactics played a part at all in the British defeats of 1899, they resulted, not from the Aldershot teaching of the 1890s, but from a failure to act in accordance with it.

This is not to imply that twentieth century trench warfare was generally anticipated. Even the most perceptive of reformers were confident that solutions to modern tactical problems would not elude the scientifically trained soldier. For every writer who uneasily anticipated a "long, laborious, and sanguinary war of sconces", a score were assured that "men are either victorious or beaten in one day ...". Just occasionally, the intuition was recorded that Plevna had not been an aberration in European warfare, but an adumbration of its future course:

142. Report of His Majesty's Commissioners appointed to Inquire into ... the War in South Africa Report, appendix H, 531-33 (repr. of Roberts' "Notes"). P.P. (C.1789, 1904), 40.
There will be a new departure in strategy, the ruling condition and keynote of which will be that the pieces wherewith the strategists play will be, for the moment, and for an uncertain time to come, irremovable from the board.

CHAPTER 5.

Cavalry and Mounted Infantry: Debate and Training.
By the late nineteenth century, the cavalry was on the eve of obsolescence. It remains, nonetheless, a subject of interest and importance. Even the most progressive reformers failed to foresee the imminent demise of horse-mounted soldiers as a weapon of war, and their future was debated as one of the great issues of the day. Moreover, until well past the turn of the century, cavalry remained a major way to gather and transmit information on the field of battle. With respect to the theme of this study, the cavalry debate is of particular significance. For in Great Britain alone of European powers were mounted infantry established as part of the regular organisation for war, and this measure was a direct response to observation of a non-European army (that of the U.S.) and to the exigencies of colonial campaigning. It is still true to say that much of the cavalry controversy displays the limitations of army reform in this period. The sentiment and romanticism enveloping the long history of the horse in warfare could render otherwise shrewd and commonsensical reformers quite myopic and misty-eyed. Not only conservatives would have sympathized with the young officer who, when examined on the role of cavalry in modern war, allegedly wrote: "The chief role of Cavalry on the modern battlefield is to give tone to the proceedings, and thus prevent what, in their absence, might otherwise degenerate into nothing but a vulgar Infantry brawl."¹

¹ Discussion on the battle of Vionville, comment by Maj. W. Verner. U.S.M. n.s. 10 (May-Sept. 1894), 46 (like many good stories, probably apocryphal). Lord Anglesey, The British Cavalry (2 vols. Lond. 1973 and 1975), is the standard work on the cavalry from 1815 to 1870, and conveys the atmosphere of the period with a mass of fascinating and meticulous detail. H. Moyse-Barlett, Nolan of Balaclava Louis Edward Nolan and his influence on the British Cavalry (Lond. 1971), 67-93, and Brian Bond, 'Doctrine and Training in the British Cavalry, 1870-1914", in Michael Howard (ed.), The Theory and Practice of War (Lond. 1965), provide valuable analyses of the mid and late Victorian cavalry respectively.
The immediate lessons of the Franco-Prussian war for the cavalry were twofold. First, it was apparent that it must learn to diversify its functions. No longer was it merely the arm of shock and the charge; it had also become the chief channel of communication from the forefront of the newly-extended battlefield to the commander-in-chief. Secondly, continental writers stressed that the cavalry had a major and spectacular role to play in future warfare by preceding the main army and destroying the enemy's screen of security in a great cavalry encounter. Then, at the decisive moment, the troopers were to secure the fruits of victory by charging the disintegrating enemy units and launching the pursuit. Standard cavalry doctrine focused, therefore, upon the service of security and the strategic role of shock. Emphases upon these two functions were nicely balanced in Kraft's famous Letters on Cavalry, of all foreign studies of the subject perhaps the one most frequently cited by British writers. Reconnaissance was the theme of General Verdy du Vernois' case-study of cavalry on patrol, a work which went through five English editions in the nineteenth century. His approach was imitated in a French analysis of a squadron on reconnaissance, also translated and set, as its foreword indicates, as a Staff College text.

As the experiences of 1870 receded, the obsession with cavalry action *en masse* grew. General du Nogrier, for instance, assured the French cavalry in 1897 that no existing weaponry could resist its "raging attacks". It must abjure its firearms in the assault; all that was needed was cavalry sceptical of science, "believing only in the immense moral force it has within it". The manoeuvres carried out in accordance with his advice demonstrated to the general satisfaction that "CAVALRY CAN AND SHOULD CHARGE IN THE PRESENT DAY AS IT WAS USED TO CHARGE IN THE DAYS OF THE FIRST EMPIRE". Precisely the same conclusion had been derived from the French manoeuvres of nearly twenty years previously.

German and Austrian cavalry likewise were trained to use shock tactics in large masses, and German manoeuvres became celebrated for their magnificent mock charges. The very spectacle could be convincing, as F.N. Maude’s description of a charge by sixty squadrons suggests:

... the sight was not readily to be forgotten. A long dark wall, a mile or more in length, sweeping diagonally across the slope of the hill — eating up the ground like the shadow of a dark eclipse. Presently, as it struck the enemy, it broke forward like the surf of a breaker foaming over rocks ...


I afterwards learned that this attack was meant in the Napoleonic style, as against a shaken enemy but not yet broken — to achieve victory at any cost.\(^8\)

Attention was paid in Russia to the dismounted training of cavalry, but this aroused widespread criticism and, according to one observer, by the 1890s there was "no more talk about extending the employment of the dragoon dismounted".\(^9\) Otherwise, no European army established a force resembling mounted infantry. The reintroduction of the lance into the German army in 1890 testified to the power of tradition over the horse-mounted arm of western Europe.\(^10\)

Within Britain, the significance of cavalry experiences in foreign wars was endlessly debated. Many acknowledged that the achievements of the troopers in the American Civil war were as great as their status was uncertain. Was, however, the lack of decisive victories in that prolonged conflict due to the absence of true cavalry? On the other hand, modern examples of cavalry attempting to act decisively were hardly reassuring. General Bonnemain's charge at Froeschwiller


(6 August 1870), for instance, cost the 2nd. Cuirassiers some 30% of the men and 57% of the horses, and the 3rd. Cuirassiers 32% and 37% respectively. At Vionville-Mars-la-Tour, the charge of the French cuirassiers of the Guard against the Prussian 52nd. Infantry caused the astounding losses of 69.7% of the men and 73.6% of the mounts. Few sought to defend such quixotic gallantry, but the successful charge of Von Bredow's six squadrons at the same battle was hailed by cavalry conservatives the world over as the final vindication of shock tactics. This assault, lasting some thirty minutes, put roughly half the men and horses out of action.\footnote{For the figures: Vet.Capt. F. Smith, "The Loss of Horses in War", \textit{J.R.U.S.I.} 38 (1894), 287-89; and on the engagements: Michael Howard, \textit{The Franco-Prussian War} (Lond. 1961), 115, 156-57.}

To many officers, such degrees of loss were perfectly acceptable. There was no lack of those who, in the face of such evidence, continued to worship the power of the charge and the terror of cold steel. On the other hand, numerous British reformers rejected to a greater or less extent the common heritage of European cavalry doctrine, and sought to replace the time-worn principles of cavalry training with practices both more suitable to modern weaponry and the specific requirements for colonial warfare. The former group may be discussed with some brevity, first because of their predictable repetition of the same few basic ideas, and secondly because they seem to have influenced official reform less than the more progressive school.

One of the most eloquent cavalry conservatives was F.N. Maude. His preoccupation with war on a massive scale and his calm acceptance of huge losses led him to advocate the latest extremes of European doctrine. German cavalry, with its perfection of massed manoeuvre and the wall-like front it presented in the grand charge, commanded his utmost admiration. He felt that since armies now fought at
unprecedented ranges, a greater premium than ever had been put upon the speed of the horse. The moral disintegration of infantry under modern fire had increased the opportunities for shock. Reliance on a firearm or dismounted action he regarded as deleterious to the cavalry spirit. Mounted infantry he called a "mongrel deity", whose hybrid ineptitude would be apparent if they were caught in the open by true cavalry. The normal practice at British manoeuvres, where umpires usually judged it impossible for cavalry to charge artillery or well-formed infantry, met with his disapproval, and he mused on how easily a spirited soldier could defy modern weaponry:

The advantage of either sword or lance in cavalry work is that it drops a man at once. A man may be mortally wounded by revolver or rifle bullet and fight on for a couple of hours.  

In fine, in the future as hitherto, "precision of manoeuvre and a boot-to-boot charge will be the chief factors of success".  

Examples of such views may be multiplied by the score and perhaps to little point. Lieutenant-General Sir Frederick Fitzwygram happily believed that magazine rifles would redound to the benefit of the horse-mounted arm; all it needed to do was to feint, precipitate a hail of misdirected bullets, and to charge the infantry in flank. Indeed, he told his audience at the R.U.S.I., the magazine rifle will "probably be the most dangerous arm you can place in the hands of infantry ..."; meaning as a liability to their own side, though perhaps his listeners

12. "Dr. Conan Doyle and the British Army. A Reply", Cornhill Magazine 9 (1900), 735-36; quo. re. mounted infantry from Letters on Tactics (Kansas 1891), 264. For Maudslay's cavalry views: ibid, 55, 56, 67-73, 167, 169, 264-69, 305; Cavalry versus Infantry (Kansas 1896), 45, 46, 104, 206; Cavalry Past and Future (Lond. 1903), 173, 174, 253, 264, ch. 5, passim.

were amused by the unconscious irony. Colonel J.P. Brabazon entertained the Elgin Commission at length with a doxology upon the tomahawk. Rapiers were fine weapons, he argued, but the Anglo-Saxon races were born to use the edge; no other arm would have "the same demoralising effect as my tomahawk". To one student of the Franco-Prussian war, the functions of cavalry lay in its "reckless sacrifice of human life ... in fact, by substituting one target for another". Such delusions were fostered by uncritical war correspondents who allowed their romanticism full rein when writing of the cavalry arm.

There were certainly conservatives who did not defy logic and common-sense so blatantly as did Maude and those of his persuasion. Even the Duke of Cambridge felt that "probably the day of heavy cavalry has somewhat passed by". General Sir Beauchamp Walker, Military Attache in Berlin during the Franco-Prussian war, typified the relatively flexible attitude of the more moderate traditionalist. Walker made a distinction between the zone of fire and the battlefield proper. In the former, to his mind, the cavalry ought to use a long-range rifle (rather than the carbine which the British horse employed


throughout this period), but in the latter to propose using firearms was "nothing short of insanity". Furthermore, several well-known reformers argued that the future of cavalry would be assured if it could accept that its functions had changed, concentrate upon reconnaissance, and learn to cooperate with horse-artillery and machine-guns. Francis Graves, Valentine Baker, and John French were amongst those who may be regarded as reformers within the conventional framework. All were preoccupied with the employment of cavalry in large masses, looked to Germany for a model of the modern use of the arm, and, with the exception of French, opposed or ignored mounted infantry.

Thus, Hozier urged the British authorities to adopt the German organisation of independent cavalry divisions and to train them as such. Baker, who had been regarded as an authority on cavalry since his publication of The British Cavalry in 1858, argued to similar effect. So long as Britain's cavalry remained in its current and permanent dispersion, it could not, in his view, learn its proper duties in modern war. Graves constituted himself an unremitting

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21. "Organization and Employment of Cavalry", J.R.U.S.I. 17 (1873), 375-98 and 389-410 (adjourned discussion). It should be pointed out that Baker felt that Britain had nothing to learn from the continent about military horsemanship. The British Cavalry with Remarks on its Practical Organization (Lond. 1858), 23.
critic of the British cavalry, using the practices of Germany, France, and Russia as his standard for judgment. The growing concentration of cavalry on France's eastern frontier, on the two German fronts, and in Russia from the Baltic to the Black Sea, indicated to him that the great powers had all recognised the principle that the British persistently refused to accept; the strategic employment of the mounted arm. The type of war he envisaged for the British army of the future was abundantly clear:

It is the growing opinion on the Continent that the next great war will be opened by cavalry engagements on such a scale, and of such a desperate and sanguinary character, as has never been witnessed before. I believe it, and only hope that, should we take part in it, we may do so with an organization, armament, and equipment equal to those of our opponents ... 22

With regard to the cavalry question, French is chiefly and rightly remembered for his rearguard defence, with Douglas Haig, of the arme blanche tradition against critics such as Erskine Childers.23 As a rising star in the nineties, however, French was very much the modern scientific soldier, and his stress upon horsed firepower made him seem the young radical. In his first R.U.S.I. lecture, which was well received, he expressed his faith in large and highly-trained cavalry


23. See, for example, French's introduction to Lieut.-Gen. Frederich von Bernhardi, Cavalry in Future Wars, transl. Charles Sydney Goldmann, (Lond. 1906); Erskine Childers, War and the Arme Blanche (Lond. 1910), and his German Influence on British Cavalry (Lond. 1911).
masses. Acting by division, supported by horse artillery and machine-guns, cavalry could play a role unsurpassed in modern history. Manoeuvres should be designed, he argued, to bring the British cavalry into line with its continental neighbours, to put it on "a parity of footing with foreign countries in Europe". 24

Continentalists such as these plainly contributed to certain aspects of cavalry reform. Many improvements carried out during this period were designed to enhance efficiency within the traditional framework; that is, to enable the cavalry to do better the sort of thing it had always done. One such reform was the introduction of the squadron system. In the converse direction, however - the regular training of cavalry by brigade and division - reformers were thoroughly frustrated.

Throughout most of the late nineteenth century, Britain was distinctive amongst the great powers in lacking virtually any organisation for cavalry training either larger or smaller than the regiment. The localisation scheme of 1873 had passed the cavalry by; all depots were concentrated at Canterbury and no connection existed between yeomanry and the regular mounted regiments. Recruits enlisted for particular regiments, and could not be transferred involuntarily from one to the other. No training took place by squadron, the smallest tactical unit for cavalry in France and Germany. 25 As for the higher units of brigade and division, universal in the greater European armies, they did not exist even in name in the British army until the


close of the century. The strategic importance of cavalry action in such units was officially accepted by 1891, but purely as an academic point.  

Shortly afterwards, the cavalry was divided into four great corps (household, hussar, dragoon, and lancer), but merely for administrative convenience; rank and file could now be transferred from one regiment to another so long as they remained within the same corps.  

A similar alteration on paper in 1897 organised the home regiments into four brigades. These found only a transient embodiment during manoeuvres, and no cavalry division was provided for in the field army regulations of 1898.  

Reformers urged the adoption of the squadron system on the continental model many years before some action was taken on the issue. As early as 1869, at Valentine Baker’s insistence, cavalry regiments were experimentally divided into four squadrons, each of which was to be a distinct tactical and administrative unit. The measure seems to have foundered upon the reluctance of junior officers to relinquish their relatively independent troops commands (two of which formed a squadron for drill purposes).  

During the 1880s the question was taken up by French, who urged the adoption of squadron system upon the then commanding officer at Aldershot, General Sir Evelyn Wood. Wood proved


27. *Army Book*, 100.

28. *A.O.* (1897), 41.


responsive to the idea, and squadrons as partially self-contained administrative and tactical units were introduced unofficially at Aldershot in 1890.\textsuperscript{31} This measure received the stamp of approval two years later, when the squadron system was authorized for the entire army. Troops were abolished, a serjeant-major was to execute details of every squadron's interior economy and drill, and each was to be commanded by a major and captain.\textsuperscript{32}

Concurrently, some of the cavalry's flamboyance was sacrificed to the demands of modern training. Colonel Francis Graves, who had tried to persuade an equipment committee of 1875 to abolish the magnificent and cumbersome sabretache, wrote of it in 1890:

\textit{... at Aldershot, on the Fox Hills, to see a hussar trussed up in a skin-tight tunic, white belts, white gloves, tall busby, long boots, carbine in one hand, sword in the other, one foot in a rabbit-hole, the other hung up in his "swagger appendage", falling face foremost into a prickly furze-bush, is a sight for the gods.}\textsuperscript{33}

In that year, the sabretache was abolished for all privates in cavalry regiments.\textsuperscript{34} Other measures reflected the growing diversity of cavalry functions. Pioneer instruction was introduced in 1887, a

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\textsuperscript{31} F.M. Sir H. Evelyn Wood, \textit{From Midshipman to Field-Marshal}, (Lond. 1906), II, 208.
\textsuperscript{32} A.O. (1892), no. 37.
\textsuperscript{33} "Cavalry Equipment, Organization and Equipment", \textit{J.R.U.S.I.} 34 (1890), 704.
\textsuperscript{34} A.O. (1890), no. 200.
\end{flushright}
class in fieldwork training being formed at the School of Military
Engineering, Chatham.\textsuperscript{35} Rangefinders were supplied in the following
year, and in 1889 annual machine-gun drill for cavalry was authorised.\textsuperscript{36}
How good these courses were is debatable, but the fact of their estab-
ishment is significant.

Our discussion thus far has been concerned with the common
heritage of European ideas and practices. The ensuing pages survey
the body of opinion which was distictively British, or at least, with
respect to mounted troops, Anglo-American. This school tended to
adopt radical notions as to the efficacy of cavalry in modern war and
to advocate the introduction of some form of mounted infantry into the
British army. To combine the virtues of cavalry and infantry was not,
of course, an entirely novel idea. Similarly, purist resistance to a
hybrid arm was inherent in the cavalry tradition. To them, the unin-
tended irony of Samuel Johnson's definition of a dragoon as "a kind of
soldier who serves indifferently either on foot or horseback", showed
that the good doctor had had the right idea. Something that was based
upon a "bastard principle" would perform unhappily in both its func-
tions.\textsuperscript{37} In contrast, many reformers of the 1870s argued that the
American Civil war had revived the dragoon in a new and exciting form
which need not endanger the continuance of true cavalry.

\begin{itemize}
\item \textsuperscript{35} G.O. (1887), no. 80.
\item \textsuperscript{36} A.O. (1888), no. 177 (rangefinders); A.O. (1889), no. 397
(machine-guns).
\item \textsuperscript{37} Col. Valentine Baker, "Organization and Employment of Cavalry",
J.R.U.S.I. 17 (1873), 408. Samuel Johnson, A Dictionary of the English
Language (3 vols. Lcnd. 1777), I, "dragoon".
\end{itemize}
One of the first to bring the issue into public debate was Sir Henry Havelock, son of General Henry Havelock of Lucknow. Havelock-Allen, as he was later known, based his famous Three Main Military Questions of the Day partly upon his experiences during the Indian Mutiny and partly upon his observation of the American Civil war. Much of the work is a coruscating and delightfully witty flow of satire upon the average cavalryman's resistance to change; to choose one example of many such:

But when we come to the cavalry, we find not only a theory of action, and consequently of instruction, apparently behind and at variance with the spirit of the times, but symptoms, only too evident, of an intention to shut the eyes to the manifest direction in which all progress in military art and practice is tending ... proclaiming aloud that we pin our faith on spurs, lance, and sabre ... 38

His argument was clear and simple. Rejecting all forms of shock, he espoused the mounted rifleman, whose potential, to his mind, had been fully realised in the American Civil war. Havelock's two chief examples, discussed at length, were the outflanking and detaining operations of General Phillip Sheridan which had precipitated Robert E. Lee's surrender in April 1865, and the Indian campaign of General Lord Lake during the Second Maratha war (1803-06). 39 Lake's light cavalry regiments, equipped with small "galloper guns", were seen by

Havelock as the prototype of the roving and independent contingents of Sheridan and the Confederate commanders Nathan Forrest, John Morgan, and J.E.B. Stuart. As for cavalry proper, Havelock showed little inclination to maintain it at all. If it were continued, he advised, cavalry should carry breechloaders and form a minority of the mounted establishment. 40

Havelock's stress upon the bankruptcy of shock tactics alone was sufficient to make his book unacceptable even to moderate cavalrymen, but much else in it detracted from its virtues. Its style is strained and excitable to an extent which lends credence to his reputation for mental imbalance. 41 He presented mounted riflemen almost as a general panacea for the problems of imperial defence. Widespread adoption of the new arm would, he argued, permit Great Britain to reduce her Indian garrison by a third, to save £2½ m. annually, and to form a home reserve with part of the surplus. The "three main questions", therefore, would be answered. Plainly, however, it was as much Havelock's cavalry heresies as his rather wild oversimplification of a complex problem that made his work singularly unconvincing to contemporaries.

It was the writings of the Canadian militia officer, Colonel George Denison, which had more relevance to practical reformers,

40. Ibid, 58-63.

41. He was reputed a madman, wrote Wolseley: "... I have no doubt that he has a tile off somewhere." But he added: "One has seen a woman occasionally whom one felt just missed being a very great beauty; in the same fashion Havelock has in my opinion just missed being the first soldier of his time ... He has an intimate knowledge of his profession which he studies scientifically; he is most zealous and untiring as a staff officer and admirable in all the details of Staff work, but he can never get on with men." South African Journal 1879/80, entry 30 May 1879, W.O. 147/7.
although he was influenced to some extent by Havelock. Denison's first study, indeed, was written at Havelock's suggestion, and the two men seem to have been on friendly terms. Nonetheless, Denison was too much the plain man to adopt Havelock's extravagant and metaphysical approach. Modern Cavalry was straightforward and commonsensical, and also manifested its author's strong faith in shock tactics. Pure cavalry, Denison insisted, had an existence independent of other varieties of the mounted arm. Though sceptical of the value of the sabre, he eulogized the lance as the "queen of weapons", and emphasised that cavalry should be taught that "the fighting does not commence until they begin to ply their sword or use their lances or revolvers ...". Unsupported artillery, he believed, would "almost invariably succumb to the attacks of cavalry". In these respects Denison was quite unoriginal.

A new departure and some similarity to Havelock were evident in his assessment of the American Civil war as the arena in which the modern use of cavalry and mounted infantry was tested and established. The latter, he felt, were capable of patrolling, reconnaissance, strategic grand-scale raids, defence of positions, and even of shock with revolver. Indeed, his own arguments cut the ground from under his insistence upon the ineluctable necessity of true cavalry. Denison may have come to feel this himself, for a decade later, in his History of Cavalry, cavalry proper was relegated to a decidedly

42. Lieut.-Col. G.T. Denison, Soldiering in Canada (Lond. 1900), 142, and 140-52; A History of Cavalry (Lond. 1877), 388-90.

vestigial role. Panegyrics of shock action, common in his first work, are noticeably absent. The Franco-Prussian war had, to his mind, "settled conclusively" and in the negative, the question of whether or not cavalry could charge infantry armed with breechloaders. While in 1868 he had written that "great care must be taken to teach horsemen to believe that no infantry can stand a charge of cavalry in an open field", by 1877 he had no doubt that infantry had indubitably benefited from recent developments in weaponry. Moreover, he seems to have lost his admiration for the lance, and recommended that pure cavalry itself be trained to charge with the revolver. Finally, he repeated more forcibly his views on mounted infantry. Cavalry should form only a quarter of the mounted establishment; his cherished new arm was to be no mere ancillary support.

As one might expect, Denison's views had a mixed reception in Britain. Although Wolseley knew and admired Denison personally, he felt that the Canadian did not quite have a professional appreciation of "what real cavalry can do". As this did not exist during the campaigns of the Civil war, they provided no lessons, Wolseley argued, for the traditional mounted arm. On: reviewer of Denison's History

44. A History of Cavalry from the Earliest Times, with Lessons for the Future (Lond. 1877) Denison claimed to have consulted some 700 works in the preparation of this book.

45. Ibid, 410-12, 418, and ch. 30, passim; Modern Cavalry, op. cit., 163-64.


was rather more acerbic; of its recommendations for the future, he commented: "Where they are sound they are seldom original; where they are original they are seldom sound." Despite his rejection of the American experience as irrelevant to European warfare, the reviewer put his finger on the contradiction at the heart of Denison's writings. Troopers capable of undertaking the range of duties Denison prescribed for them were not merely infantry carried on horses, but rather, indistinguishable from European cavalry trained to fight dismounted. If this were so, then Denison's distinction between properly trained cavalry and mounted riflemen was groundless. In fact, the editor of the American "International Series" insisted that the troopers of the Civil war had been real cavalry, and was distressed that "some stubborn or ill-informed European critics still term it 'so-called cavalry' or 'mounted infantry ...'". General Sir Keith Fraser used the same argument in a vain attempt to impugn new-fangled ideas. The American horse, he insisted, were cavalry pure and simple; no hybrid arm could have performed so well. Whether they had been cavalry, or mounted infantry, or mounted riflemen (for some sought to maintain three categories), troubled the minds of British cavalry officers. There was much in a name.

During the decades under review interest in the mounted infantry question and its bearing upon cavalry training rapidly developed until it became, like topics such as the infantry attack or the education of officers, a subject of continual debate. This centred upon two main


49. Capt. A.L. Wagner (ed.), Cavalry Studies from Two Great Wars (Kansas 1896), pref.

issues; the exact status of the new arm, and the form in which it should be introduced, if at all, into the British army.

It is abundantly clear that much of the controversy was fuelled by the use of irregular cavalry in British imperial warfare. This was no new thing; the Cape Mounted Rifles had existed since the 1790s and were employed continuously during the Bantu wars of the 1820s and 1830s. Sir Henry Havelock had raised a small force of mounted riflemen against the Sikhs in 1858. But in the Zulu war and the Egyptian campaigns of 1882 and 1884-85, unconventional mounted units were employed to an unprecedented extent. This, coming at a time when the future of cavalry proper was under interrogation, gave immediate relevance to the mounted infantry question. Nonetheless, the great majority of reformers who espoused the cause of mounted infantry were also cavalry enthusiasts. Their aim was not to phase out cavalry, but to complement it. Havelock-Allan's denigration of the regular arm was anathema to most commentators on the subject, whether they were reformist or otherwise. Writers such as Erskine Childers, who rejected all forms of shock and was obsessed with the concept of the roving mounted marksman ("let that ideal figure have a universal quality", he wrote) belonged to a later stage of the controversy. With the occasional exception, none of those whose opinions have been noticed by the present writer would have wanted to


52. * Mounted Infantry* (Intelligence Branch 1881), appendix I. W.O. 33/3.


obliterate all distinctions amongst mounted troops. What caused excitement was not the thought that here was an arm to succeed traditional cavalry, but the realisation that at last Britain was carrying out some military innovation of her own volition, and not merely trying it out in peace but proving its value in war. Lieutenant-Colonel E.T.H. Hutton, a leading advocate of mounted infantry, expressed his views upon the general context of the subject in a passage illustrative of the attitudes of the imperial school of reformers:

It seems to be an accepted fact that we Britons are, in all things military, to follow the lead of others. Some of us may well recollect when, after the Crimean and Italian campaigns, we worshipped at the shrine of the French. We wore trousers that were baggy and caps that had peaks. Since the collapse of the French military power we have slavishly bent the knee to everything German. We prefer to ask what the opinion of Berlin may be upon all military problems rather than to trust to our own judgment, or to believe our own experiences and follow the dictates of our own commonsense.

In every line of life - whether it be commercial, mercantile, naval, or the fine arts - we take our position at the very front rank, if indeed we are not unrivalled. In things military we are ready to buff our heads, and take an insignificant position. We wilfully forget that we have lived, and live, by the sword, and that we have created, are at this moment creating, this vast Empire of ours by campaigns in every part of the globe ... 55

Some authoritative voices attempted to deny that colonial warfare could teach the cavalry anything. Lord Chelmsford, who commanded the British forces during the Zulu war until June 1879, adopted a somewhat ambivalent stance on the issue. Although he spoke highly of the services of his regular and irregular mounted corps in the Zulu war and preceding Bantu war, he was equally insistent upon their necessary inferiority:

... but I am bound to say, could I have had the same force of cavalry instead of Mounted Infantry, I would have changed it the very next day that I had the offer.

He felt, too, that his mounted corps had been greatly handicapped in lacking an "offensive weapon", being armed only with the rifle. This remark reflected the assumption, still lingering, that fire was inherently defensive. In point of fact, the mounted troops under his command in South Africa sometimes carried the sabre and attempted to use it. When faced with the realities of the South African situation, Chelmsford had been a little less doctrinaire. In his urgent requests for reinforcements after Isandhlwana, he emphasised that "the Cavalry must be prepared to act as Mounted Infantry and should have their Carbines slung on their shoulder, and a sword shorter than the regulation pattern fastened to the saddle".

56. Comments upon Lieut.-Col. E.T.H. Hutton, "The Mounted Infantry Question in Relation to the Volunteer Force of Great Britain", J.R.U.S.I. 35 (1891), 809-10. No cavalry at all were sent out in Chelmsford's first field force, although two regiments accompanied the reinforcements dispatched after Isandhlwana. Narrative of the Field Operations Connected with the Zulu War (H.M.S.O. 1881), 141-54 ("Composition of Columns and Distribution of Troops on 11th January 1879"; "State of South African Field Force, end of May, 1879").

57. See dispatches on Gingilhovo, cited notes, 62, 63.

Elsewhere, Chelmsford's defence of tradition showed some disregard for accuracy. His reports on the action of Gingihlovo, 2 April 1879, which occurred during his advance to relieve Colonel Pearson's camp at Ekowe, stated that the "sabres of the Mounted Infantry did great execution", "some 50 or 60 men having been sabred". As nearly 700 Zulus were found dead in the vicinity of the British laager, even sixty was less than 9%. Moreover, in a detailed report on the role of mounted troops in the action, their commander, Major Percy Barrow, reckoned that only a few had been killed with the sabre although, he added, "the moral effect on the retreating Zulus as the swordsmen closed in on them was very great". Barrow himself was an interesting example of conservatism. His command of regular and volunteer mounted contingents in the Zulu war brought him distinction, and he did not deny their value in irregular warfare. But as "the best cavalry officer in the country" he was obviously hankering after a force of genuine troopers. Mounted units in small wars were frequently swordless, so he was delighted by the equipment of the mounted infantry in the Ekowe Relief column:

I saw a sight today which pleased my eye more than anything I have seen for a long time. 80 mounted men with the "arme blanche" attached to the saddle. I don't anticipate that

59. Telegram from Chelmsford to Col. Bellairs, D.A.C., Durban, n.d. (presumably 2 April 1879); Chelmsford to Frederick Stanley, Secretary of State for War, 10 April 1879; Maj. Percy Barrow, "Report upon the part taken by Md. Troops at Gingilhovo", (6 April 1879); all Chelmsford Papers, file 9.

60. "Memo. on Training Mounted Infantry", Mounted infantry (1881), W.O. 35/37.

they will ever kill anybody but (will have) the moral effect
I have been taught to believe in from my youth. 62

After Ginghlovo, he wrote predictably: "I have no hesitation in
saying that had a regiment of English Cavalry been on the field of
battle, scarcely a Zulu would have escaped ...". 63 Thus his tradit-

ional convictions remained unshaken by his colonial experiences, and
in subsequent years at Aldershot, according to his close friend Maupe,
Barrow sought to bring the British cavalry out of its state of
"timidity" and to work out how "German methods could be applied to
English conditions ...". 64

Nonetheless, the weight of influential opinion leaned towards
more progressive views. Colonel Redvers Buller's Frontier Light
Horse did not carry swords and he himself thought the arme blanche
superfluous for colonial campaigning. Under his rough tutelage, the
Frontier Light Horse, composed of coast boatmen, miscellaneous
foreigners, and Afrikaners, became the most famous irregular mounted
corps of its day in South Africa. 65 Sir John Mitchell declared that
British cavalry had shown themselves to be "utterly valueless in the
bush" and believed that all troops fighting therein should abandon the

Wolseley, however, considered Barrow to be useless, ami wrote with
reference to the pursuit of Cetewayo after Ulundi: "How different (sic)
Buller would have acted in his place", South African Journal, 1879-80,
entry for 18 Aug. 1870, W.O. 147/7.

63. "Report upon the part taken by Md. Troops at Ginghlovo", op. cit.

64. Col. F.N. Maupe, Cavalry Its Past and Future (Lond. 1903), 241-42.

65. C.H. Melville, Life of General the Right Hon. Sir Redvers Buller,
(Lond. 1923), 126-27; Lewis Butler, Redvers Buller (Lond. 1909), 33;
Col. Redvers Buller, Report to Col. Evelyn Wood, 5 July 1879, W.O. 33/34.
Captain C. Lacon Harvey, a staff officer in the Transvaal during the Zulu war, felt that mounted riflemen had proven themselves to be invaluable, and was confident of their moral impact upon impressionable Africans: "the Kaffir, terrified ..., will not venture to cultivate the 'mealie' fields in the valleys, he will feel himself unsafe even in his mountain fastnesses, and scarcity of food will soon drive him to submit".

At all events, the South African campaigns led to much discussion of mounted infantry in the service press, and the subject was thought worthy of investigation by the War Office. Several distinguished officers were asked by the Intelligence Branch to compile memoranda assessing the pros and cons of mounted infantry. The contributors to this symposium, who included Lieutenant-Colonel C.F. Clery, author of a leading elementary textbook on tactics, Buller, Lieutenant-Colonel Carrington, commanding the Cape Mounted Riflemen in 1881, Lieutenant-General Sir Archibald Alison, and General Sir Charles Ellice, the A.G. to the Forces, all cautiously approved the suggestion to introduce mounted infantry into the home army. Their conclusion laid down the standard reformist view of mounted infantry:

... it is pretty clear that there are two descriptions of Mounted Infantry which have been proposed -

(1) The Infantry soldier who uses his horse simply as a means of locomotion.

66. "Memo. by Sir John Mitchell regarding fighting Kaffirs in S. Africa", (28 Jan. 1878), Chelmsford Papers, files 1-2. Sir A.T. Curynghame was then commanding the troops in South Africa; Chelmsford, as the Hon. F. Thesiger, was appointed 11 March 1878.

(2) The highly-trained Mounted Infantry soldier who requires many months of careful instruction to reach a really efficient state. Corps composed of the latter would soon inevitably become Cavalry under another name—only they would not be such accomplished horsemen. They would not be worth the trouble and expense expended upon them. The same result would be better and more quickly attained by carefully training a Cavalry regiment at dismounted work. The former is what we want. 68

This concept of mounted infantry was rendered more popular by the Egyptian campaigns of 1882 and 1884-85. Lieutenant-General Sir F. Fitzwygram happily remarked that they had not only demonstrated the value of the new arm but proven that it was quite compatible with pure cavalry, a point applauded by Sir Archibald Alison. 69 Both emphasised that mounted infantry should be trained at home as a leavening scattered throughout the line regiments, rather than as a separate body which would soon develop into inferior cavalry. Proponents of this view multiplied, their ranks including E.T.H. Hutton, Wolseley, G.F.R. Henderson, the compilers of the Army Book, and relative unknowns. 70

68. "General Conclusion" by Allison and Ellice. Also see memoranda by Buller, Clery, Carrington, and "Pre cis" by Lieut. G.F. Browne, Secretary to the informal enquiry, in Mounted Infantry (1881), W.O. 33/37.

69. Memo. by Fitzwygram in m.s. file on mounted infantry, presumably collected for the perusal of the secretary of state, with marginilia by Alison, (Jan. 1886), Smith Papers, W.O. 110/6; similarly comment by Fitzwygram, as Inspector-General of Cavalry, upon Capt. C.W. Bowdler Bell, "The Strategic Service of Cavalry ...", J.R.U.S.I. 25 (1881), 440.

Less frequently, one finds proposals to establish mounted infantry as an independent service. The amount of public attention attracted to the issue is indicated by the number of occasions it was raised in parliament. Sir Baldwyn Leighton inquired of the government's intentions regarding mounted infantry in 1881, but was rather brushed aside by Hugh Childers. Later that year, during the supply debates, Sir Robert Lloyd Lindsay moved that a force of mounted infantry be provided for in the estimates, and the motion was seconded by Leighton. Childers pointed out that it was too late to add to estimates already under debate, but stated that the government intended to raise, in due course, a body of mounted infantry, not as a new service but as specially trained men spread throughout the army. Leighton anxiously enquired a year later what, in view of the secretary of state's pledge, had been done about the matter. Childers sophistically informed him that he had confused an assurance to look into the question with a promise to do something about it. Leighton again raised the issue in November of 1882, and was once more adroitly silenced. But notable figures in the Lords took up the cause, including Lord Morley, under-secretary of state for war, and Chelmsford, who seems at last to have decided that mounted infantry in the form proposed would not taint the British cavalry.

73. Hansard, 3rd. series, 264 (4 August 1881), col. 853.
74. Ibid, 269 (4 May 1882), col. 90-91; 274 (23 Nov. 1882), col. 1909.
75. Ibid, 277 (5 April 1883), cols. 1467-69.
The upshot of all this talk was the formation of a mounted infantry corps in the economical manner favoured by the civilian army reformers of Victorian Britain. Like the force specially trained for transport duties, mounted infantry were to adopt a double role; to possess extra skills without being lost by their regiments or causing the expense (or having the prestige) of becoming a separate service. The determination of cavalrymen to maintain the purity of their arm thus neatly dovetailed with the demands of economy. In 1888 an Army Order laid down a course of training for mounted infantry, and authorised the issue of a certificate of proficiency to all infantry men who completed it satisfactorily. An army register of all such qualified men in the ranks and reserve was to be maintained. The synopsis of training to be undergone looks more impressive on paper than it probably was in reality; it was to include drill, mounted and dismounted, in companies, battalions, in combination with all other arms and especially cavalry, field firing with horses, reconnaissance, and patrol work.76

The implementation of this reform was largely the work of three distinguished officers, all of whom had close links with the leaders of army reform and practical experience with mounted infantry: Major-General Edwin Alderson, Colonel E.T.H. Hutton, and Major-General Sir Henry Hallam Parr.

Alderson, a Staff College graduate, worked with mounted infantry during the First Boer War, the Egyptian campaign of 1882, the Nile expedition, the Mashona war of 1896, and the second Boer war, when he became Inspector-General of M.I. in South Africa. At home, he served as adjutant to the first mounted infantry corps established at Aldershot in 1888 by Hutton. Alderson was much admired by Evelyn Wood and was

76. A.O. (1888), no. 360.
praised in *Blackwood's* as one of the finest commanders of mounted infantry in the army. Despite his background, Alderson adopted the typical view of mounted infantry as a supplement to the distinct and far superior arm of true cavalry. Mounted infantry were merely, he wrote, footmen supplied with extra locomotion, "helpless" if attacked while riding, and immeasurably inferior in spirit to cavalry, whose creed should be: "Swords out, knee to knee, and we can smash anything". Indeed, Alderson wrote an entire book on the cavalry spirit and the way in which it could be developed by devotion to the chase:

... the chief characteristics required by those who campaign in the pink coat of the chase are identical with the characteristics required by those who do so in the scarlet coat of war ...  

Hutton, also a Staff College graduate, established the nucleus of a mounted infantry corps in Egypt, and directed the training of its British counterparts from 1888. By 1891 nearly every battalion in the U.K. had its mounted infantry detachment, and the contingents were trained annually for two months as a single corps. Evelyn Wood, whose advocacy of mounted infantry dated from the 1870s, enthusiastically supported Hutton and later generously acknowledged his work:

Lieutenant-Colonel Edward Hutton had been training Mounted Infantry before I ever took command (at Aldershot), and


78. *Pink and Scarlet or Hunting as a School for soldiering* (Lond. 1900), 217. Also on Alderson see: *Hart's Army List* (1904), 33, 39; "Our Officers", *Blackwood's Edinburgh Magazine* 168 (1900), 21; F.M. Sir Evelyn Wood, *Winnowed Memories* (Lond. 1917), 126.
continued to do that work, and much other, throughout my time at Aldershot. I have often been congratulated on the efforts I made in training Mounted Infantry, but I had little to do with it except to give Hutton a free hand ... 79

Wood's circle also included Hallam Parr, who but for ill-health would have succeeded him as Sirdar of the new Egyptian army. The wars of the late seventies in South Africa had given Parr considerable staff experience with mounted corps formed in haste and often from the most heterogeneous and unpromising material. (As Captain Lumley remarked of his volunteer mounted unit: "At first they perfectly disblasted me."). 80 There Parr worked with Wolseley, Brackenbury, Sir George Colley, and was on close terms with Redvers Buller. After the First Boer war, Parr organised a regular mounted infantry corps in Natal, and was appointed Commandant of M.I. in Egypt during the 1882 campaign. 81 When the formation of mounted infantry was authorised at home, he compiled a brief study of their training and functions, which was issued as a semi-official supplement to the first official manual on the subject.

Parr's little book presented mounted infantry as an arm for future

79. P.M. Sir Evelyn Wood, From Midshipman to Field-Marshal (Lond. 1906), II, 207. Hutton's lecture, "The Mounted Infantry Question ...", J.R.U.S.I. 35 (1891), 786, gave all the credit for the establishment of the corps to Wolseley's foresight when A.G.

80. Capt. J.R. Lumley, "Mounted Riflemen", J.R.U.S.I. 25 (1881), 638-56, quo., 653. Lumley's Horse was one of the better known volunteer units of the period.

81. Preceding paragraph derived from Parr's works: A Sketch of the Kaffir and Zulu Wars (Lond. 1880); Recollections and Correspondence, ed. Sir Charles Fortescue-Brickdale, (Lond. 1917), passim, espec. 93, 151-53, 166-200, and Hart's Army List (1904), 6.
European as well as colonial warfare, and laid down for them wide-ranging functions; to cooperate in flanking attacks, to reinforce infantry under strain, and to act as an advance guard. But, defending the principle of mounted infantry against its general rejection on the continent, Parr insisted that they were not a hybrid arm and could not rival cavalry. Indeed, he wrote, mounted infantry caught in the open by good cavalry "would probably never be heard of again".82

Likewise, the various M.I. drillbooks earnestly impressed upon their readers that mounted infantry must remember their status as mobile footmen. In the first manual a somewhat heretical statement was indeed made to the effect that a mounted infantry section should be able, in open ground, "to beat off and defeat a superior number of Cavalry".83 This did not reappear in the next edition. Otherwise, the supremacy of cavalry in its own sphere was firmly upheld, the more so as its distinction from mounted infantry was always threatening to disintegrate. The 1889 edition, for instance, stated that mounted infantry were to be the "perfection of infantry" but also to be skilled in reconnaissance, vedette, outpost, patrol, and advanced and rear-guard duties; in short, to have "a good practical knowledge of what is required from mounted men when acting as a covering body to Infantry".84 This being so, wherein lay their essential difference from cavalry was far from obvious.

Some reformers proposed that the Yeomanry Volunteers should take mounted infantry as their model and stop behaving as mock cavalry. Yeomanry who considered the suggestion, however, preferred to envisage themselves as mounted riflemen; the term had a touch of superiority. The idea was attractive for several reasons. Regular officers had always regarded the Yeomanry's claim to rival cavalry as something of an affront. Mounted riflemen, vaguely assumed to be similar to the early Confederate model, connoted initiative, individual skill, and amateur expertise rather than the anonymous bond of army discipline. Moreover, the concept of such a force suited the notions of hedge and ditchthrow defence associated with the invasion scares. It was, therefore, widely argued that if the Yeomanry would cease trying to mimic cavalry, and simply combine their skills in horsemanship and shooting with their knowledge of the countryside, they would become the ideal auxiliary arm for domestic defence. Amongst others, Wolseley, G.F.R. Henderson, Hallam Parr, and Hutton, concurred in this. The discussion eventually bore fruit in the dispatch of Yeomanry as mounted riflemen to South Africa during the 1899-1902 war. But until then, although the occasional company adopted the title of "Mounted Rifles", the Yeomanry largely ignored the comments of army reformers and clung to their traditional status.85

Some concluding reflections may be made on the cavalry views of

the major military theorists of the period. All displayed a curious admixture of conservatism and readiness to change. Maurice, for instance, did not look to the cavalry for decisive action on the battlefield, and was an enthusiast for mounted infantry. But, he insisted typically, "Cavalry and mounted infantry are each invaluable arms, but you cannot mash them together without destroying them for their proper work". Moreover, he adamantly maintained the primacy of the arme blanche for pure cavalry. It was not the weapon itself which mattered so much as that reliance upon firepower would undermine skill in manoeuvre, wherein lay the horseman's real strength. His aim should be to avoid the fire of infantry, not to compete with it. Surprise and speed in small bodies, with horse and man one unit, as if they formed "the old ideal of the arm, the centaur", were the forte of cavalry.

Similarly, Charles Callwell havered between tradition and change. In regular warfare, he felt, infantry normally had "nothing to fear from cavalry", but whether the trooper's chief arm should be sabre or rifle remained, to his mind, undecided. Sceptical of the value of shock, he reaffirmed the distinction between mounted infantry and cavalry by the rather lame criterion that while the former were "only supposed to fight dismounted cavalry fights both mounted and dismounted". In irregular warfare, however, he was convinced that

86. The Balance of Military Power in Europe (Lond. 1888), 59. Maurice also rejected the Russian Cossacks as a model for mounted infantry, on the grounds that the Russians were trying to create a dual arm (ibid., 55-59).

87. Col. J.F. Maurice, War (Lond. 1891), 62-68.

88. Small Wars (H.M.S.O. 1896), 216; ibid, (H.M.S.O. 1906), 388, 404.
cavalry traditions still held good, especially because of the alleged moral impact of the arme blanche upon impressionable natives. In the last edition of *Small Wars*, Callwell conceded that the South African war had virtually destroyed the assumption that cavalry would be superior to mounted infantry if pitted against them in the open. To be of any use against Afrikaner riflemen, British cavalry had become, in effect, mounted riflemen itself. A characteristic instance of this was the choice Smith-Dorrien offered his Lancers; they could stay in camp with their lances or fight without them.\(^8^9\)

Henderson dismissed the expectation of using cavalry *en masse* in modern war as absurd, and, by the end of the century, regarded cavalry trained on continental lines as wholly obsolete.\(^9^0\) It took him some little time to reach this conclusion. Lecturing to the Aldershot Military society in 1892, he expressed some doubt as to how American troopers would have performed against European horse. At that stage, he tended to feel that the rarity of shock action in the Civil war was due to the terrain, and not to the intrinsic inefficacy of such tactics, and his general assessment was somewhat inconclusive:

... when dismounted they were not considered as efficient as ordinary infantry, and as cavalry I do not believe they would have been able to cope with good European troops in open country. But they were admirably adapted for all mounted work in the Southern forests, and no European cavalry would have been able to touch them on their own ground. The American idea, to this day, however, is that


\(^9^0\) *The Science of War* (Lond. 1910), 52, and 50-54, 64-69.
good mounted riflemen are more than a match, on any ground, for European cavalry.91

By 1902, and after the publication of Stonewall Jackson (1898), he appears to have assented to the "American idea". The horseman of the Civil war, he wrote emphatically, was the very model of the efficient cavalryman in modern war.92 Nonetheless, and quite inconsistently, he had no doubt that, in the British Army, cavalry and mounted infantry must remain distinct services. Like Wolseley, Maurice, Evelyn Wood, Hamley, Callwell, and Sir John Ardagh, Henderson saw mounted infantry as a way to modify and extend the role of mounted troops in battle without destroying the cavalry spirit.93 In the great cavalry controversy, British reformers and traditionalists shared some common ground. Many years later, J.F.C. Fuller wrote of the "fantastic Crusader training" of the late Victorian cavalry.94 Such a phrase was an exaggeration but not without warrant. At the opening of the twentieth century, almost no-one doubted that horsemen were to play a major role in future warfare. This was to be the era "of the Cavalryman, the Dragoon, and the galloping gun ...".95 Even

91. Ibid, 247, and also see 269-74 (a discussion of Prandy Station, 9 June 1863, as illustrative of their deficiencies when the cavalry tried to use shock tactics) and ch. 8, "Battles and Leaders of the Civil War", which argued that it was chiefly a war of amateurs.

92. Ibid, 57.


94. The Last of the Gentlemen's Wars (Lond. 1937), 267.

amongst reformers, the old shibboleths were dying slowly, and Henderson, one of the most flexible and advanced military thinkers and teachers of the period, could express in 1902 views which would have been applauded half a century earlier:

The cavalry soldier must be taught to consider himself as, first and foremost, the soldier of the charge and of the mêlée. It is this that he must be led to look upon as the consummation of his training, the justification of his existence, as well as the finest, the most manful act of war. 96

CHAPTER 6.

Higher Education and Organisation in the Royal Artillery.
For the student of Victorian army reform, the Royal Artillery, like the Royal Engineers, possesses particular interest. It was in these services that the British army approached nearest to continental standards of education and technical excellence, and advanced ideas concerning officer education and military study found least resistance. With regard to the main theme of this inquiry, the Royal Artillery display in an especially acute form the difficulty of giving due weight to foreign examples and ensuring that reforms took account of the army's role as an imperial police force. The technical features of the artillery profession encouraged its officers to focus upon preparation for war in its most advanced contemporary forms. Debates about artillery education were preoccupied with the need to develop a system of advanced training which should bring the British army into line in principle, if not in scale, with European nations. Obviously, continental models exercised a potent influence in this area of reform. But in discussions of organisation, a far greater concern with imperial defence is evident. The ensuing pages consider each of these aspects of artillery reform in turn.

The crown of the scientific knowledge of the Royal Artillery, if not of the whole army, was the Royal Artillery Institution. This worked in close collaboration with the department of Artillery Studies; indeed, both occupied the same building until 1889, when the latter, as the Artillery College, was transferred to the Red Barracks, Woolwich. As a forum for military discussion, the R.A.I. was pre-dated only by the R.U.S.I. The R.A.I. was founded in 1838, as a Society for the scientific advancement of the regiment, by J.H.

Lefroy and F.M. Eardley-Wilmot, then both subalterns. Their work in artillery education complemented their achievements in other fields; Lefroy as founder of the Staff College (as the Senior department) and Eardley-Wilmot as a reformer of cadet education. For sixteen years they maintained the society as a private institution, until it received public recognition with the grant of funds for the erection of the R.A.I. building in 1854.

The Institution's activities reflect the growing concern in the period for professional military knowledge. Membership steadily expanded, amounting to nearly seventeen hundred by 1890 and to over two thousand by the end of the century. A wide variety of military periodicals - 22 in seven languages in 1887 - was regularly received, and officers with the relevant linguistic qualifications were appointed to translate or summarize noteworthy articles for publication. From the voluntary contributions, which, apart from the government's provision of accommodation, were the Institution's sole support, funds were provided to officers wishing to study foreign languages. In 1891 a system was established whereby officers at stations at home and abroad were appointed as correspondents, to send information of any interest to the R.A.I. and receive from it


reports on the latest developments. The arrangement appears to have worked well. The Institution's role as a centre of knowledge was confirmed by the expansion of its library, which housed some 30,000 volumes by 1890. During the early 1890s, the sale of the Proceedings to the public suddenly doubled, surely indicative of an increasing national interest in affairs military. Indeed, the R.A.I. publications themselves are the best testimony to the professional expertise of artillery officers of the late nineteenth century. The scientific content of the Proceedings is impressive, but the sheer range of subject matter is equally so, and proves that at least a substantial minority of the artillery officer corps was preoccupied with issues of national importance. Members of the R.A.I. may have been atypical of officers generally, but their numbers were substantial and their influence was marked.

By the early 1870s, institutions of higher officer education were well established in Europe. An array of foundations apart from the various Staff Colleges afforded postgraduate training to individual arms: the school of application in Italy, the Michael Artillery Academy and engineering schools in Russia, the advanced artillery school in Vienna, the war schools in Germany, and the school of application at Fontainebleau. Great Britain came into line with other powers when she established a permanent department of Artillery Studies in 1864.


8. Captain W.J. Robertson, "Army Customs One Hundred Years Ago". Proc. R.A.I. 17 (1890), 343.


10. Lieut.-Col. Emory Upton, The Armies of Asia and Europe (N.Y. 1878), 133-34, 152-58, 201-23, 239-49; Capt. W.S. Cooke, Memorandum on the System of Military Education in Austria (Topographical and Statistical Dept. 1872), 4; Gen. E.B. Hamley "The Armies of Russia and Austria", The Nineteenth Century 3 (Jan.-June 1878), 858.
This reform resulted directly from the observation of scientific military education abroad by three leading artillerists: Colonel J.H. Lefroy, secretary of the Ordnance Select Committee, Major C.F. Young, Director of Artillery Studies, and Major C.H. Owen, Professor of Artillery at the R.M.A. Their examination of foreign examples led them to urge the authorities to establish a coherent system of higher artillery instruction in Britain. Its pinnacle was to be the Advanced Class, a course of study in the most complex scientific knowledge of the day for a select handful of officers, who should then assume high appointments in the manufacturing departments and generally contribute to the technical excellence of the whole regiment. In short, the Advanced Class was to be a specialist equivalent to the Staff College; to provide for the artillery the expertise that Camberley sought to make available to the entire army. A syllabus and the procedure to form such a class were then outlined. More generally, Lefroy and his colleagues pleaded for a basic change of attitude amongst the military and civilian authorities. Dwelling on the need for formal military education to an advanced level, they wrote:

We believe there is no Artillery in Europe, except our own, where this is not acknowledged and where it is not the subject of what we may term a policy on the part of the Government ...

In England alone, so far as we know, has it until very lately been taken for granted that qualified officers would be forthcoming without any trouble on the part of the state to form them ...

Other reformers were equally concerned with the lower levels of artillery education. A Director of Artillery Studies had been appointed in 1850, but his department consisted only of five officer instructors besides himself. Moreover, it seemed to exist only on sufferance, and the appointment of Director fell into abeyance in 1857.12 With the impetus given by Lefroy to educational reform, the department of artillery studies was put on a firmer foundation. His appeal of 1862 prompted the formation of the first Advanced Class; its regulations were published in November 1863 and the entrance examination held in April 1864.13 Concurrently, the department was made permanent and had its staff much augmented. During the late sixties, it became a real institution rather than an appendage to an individual appointment. By the time of the Dufferin enquiry of 1868-70, the department had developed a full array of courses, from the Advanced Class, to the "short", "long", and Firemaster courses for officer and other ranks.14 Moreover, the department embraced the School of Gunnery at Shoeburyness, founded in 1859 at the instance of Lefroy. This permitted men and officers to work with the guns and devices whose mechanism they had studied at Woolwich. The purpose of the school was primarily experimental, to allow officers the chance to test different types of ammunition and weaponry against different types of material.15

12. Lieut.-Col. C. Young, "Memorandum on the Department of Artillery Studies", (1 May 1869), cviii. Ibid, appendix IX.
14. "Memorandum upon the Department of Artillery Studies", (1 May 1869), cviii. Royal Commission, op. cit., appendix IX.
By 1870, therefore, Great Britain possessed a system of higher artillery (and engineer)\textsuperscript{16} education similar in principle if not in scale to the centres for advanced instruction maintained in other European countries. In Britain, however, higher officer education remained selective throughout the nineteenth century. Whether individual officers, therefore, benefited from the burgeoning lineup of courses at Shoeburyness or Woolwich was very much a matter of chance or their exertions. Moreover, some conservatives continued to oppose the idea of professional training, and made the Advanced Class a special object of their criticism. It was, they argued, a new-fangled continental import and an unnecessary luxury.

Unfortunately for the cause of artillery education, evidence laid before the Dufferin enquiry of 1868-70 seemed to indicate that the Class was not fulfilling the purpose envisaged by its founders. It was unpopular – in 1869 only seven candidates sat for the entrance examination, one less than the quota – and therefore it could hardly have been seen as a catalyst to professional improvement in the regiment.\textsuperscript{17} Reformers insisted, however, that the original concept of such a course was sound and that its conduct merely needed to be improved. Charles Brackenbury, then Assistant Director of Artillery Studies, criticized the course for "an idolatry of mathematics" and unwarranted formality. Attention should be paid, he urged, to tactics and military history, and a lecturer in the art of war should be attached to the department. The candidates for the P.A.C.

\textsuperscript{16} "Royal Engineer Establishment", \textit{ci-cii}. \textit{Ibid}, appendix VIII.

certificate, being officers of at least six years standing and also
qualified in the Shoeburyness gunnery course, should be treated in a
manner suitable to their regimental standing: "It appears to me to
be a mistake to set father of families down to desks like schoolboys".18
Young and Lefroy testified to similar effect, and laid the blame for
the unsatisfactory performance of the class upon administrative short-
comings. Their contentions seem to have been well-founded. Officers
who gained the P.A.C. were not assured of appointments, and the vital
need to make officers supernumerary during the course had not been
recognised despite the emphasis upon this point in the original scheme
for the Class.19

Witnesses echoed these points before a committee under Major-
General E.C. Warde, appointed in 1871 to examine the education of
junior artillery officers. The report expressed a high opinion of
the Advanced Class and its products, and one witness stated that P.A.C.
instructors at Shoeburyness were far superior as teachers to those who
had never passed through the Class. Several officers complained as
to the schoolboy treatment meted out to candidates, and the committee
accordingly recommended that they "should be allowed as much liberty,
and be treated with as much consideration, as students in the great
universities".20

Nonetheless, these criticisms had left an unhappy impression upon
the minds of the authorities and confirmed existing prejudices. When

20. Report of a Committee on the Education of Artillery Officers,
xvii; Minutes of evidence, 2-5, 18-19, 20-23, 26-29, 30 (Capt. A. Ford,
Capt. James Morgan, P.A.C., Lieut. W.E. Harvey, Lieut. Hamilton Geary,
Capt. F. Close, Capt. Richard Oldfield, who commented upon P.A.C.
a shortage of candidates occurred at the next entrance examination, a committee under Major-General William Napier, Director-General of Military Education, was appointed to assess the whole question of higher scientific education for artillery officers and to judge whether the Advanced Class deserved to continue. The evidence gathered by the Committee indicated that the unpopularity of the Class was more apparent than real. It found widespread support in the artillery officer corps, and its difficulties were clearly attributable to the way in which the official regulations were loaded against those who wished to reach the highest scientific levels of their profession. But amongst certain senior officers, the new courses aroused profound antagonism. 21

The two groups presented a striking contrast of opinion. Major-General D.E. Wood, for instance, considered that the Advanced Class was sapping the manhood of the regiment, and added:

21. Report of a Committee on the Advanced Class of Artillery Officers P.P. (C.589, 1872), 14. The general import of the evidence may be summarized in tabular form:

<table>
<thead>
<tr>
<th>Witnesses</th>
<th>Opposed Class</th>
<th>Approved</th>
<th>Uncertain</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 Generals or Major-Generals</td>
<td>2</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>15 Cols. or Lieut.-Cols.</td>
<td></td>
<td>13</td>
<td>2</td>
</tr>
<tr>
<td>2 Majors.</td>
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<td>4 Capts.</td>
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<td>4</td>
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<td>3 Lieuts.</td>
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I also consider that the Short and Long Course, the Advanced Class, and the two years at the Staff College, are all used by married officers to give them and their families the quiet repose of English life, and that after the years so passed you have an officer with, no doubt, great abilities, but quite unfit to discipline men. 22

General Richard Dacres showed a similar antipathy towards intellectual pursuits. "I fancy many things in the present day are overdone", he remarked, "and science is one of them." 23

Such members of the old school were quite out of step with regimental opinion. Young and Eardley Wilmot urged the continuance of the Class, and found almost unanimous support amongst the witnesses from Lieutenant-Colonel downwards. Wilmot believed that the abolition of the Class "would be a very serious national loss", Lieutenant Hamilton Geary declared that it would be "suicidal", and others claimed that rumours of such a step had aroused protests throughout the regiment. 24 It seems to be clear that the Class was far from unpopular in the sense that it aroused general antagonism. Judged purely from the number of formal applications for admission, however, it was evidently on the verge of failure. In 1872 there had been four candidates at the entrance examination, of whom three were disqualified. 25 The importance of this committee's report lies in


the way in which it established that the breakdown of the Class was attributable to defects in its administration, and not to an insuperable opposition amongst the officer corps to advanced professional education.

In the first place, the continued failure to second candidates naturally made officers reluctant to leave their batteries and entail extra work upon those who remained. Almost every witness on regimental service commented to this effect. The problem was exacerbated by low officer establishments, a persistent feature of these years but one beyond the control of educational reformers. According to the Assistant-Director of Artillery Stores, there had been "numerous" applicants to enter the course in 1872, but their commanders had been obliged to refuse them permission to sit the entrance examination on account of the paucity of officers.26 Secondly, the entrance requirements, especially in the mathematics which counted for 70% of the total marks, were unrealistically high.27 The committee therefore concluded that syllabus reform and the supernumerary principle should be introduced, and urged that the Class be resumed.

Other difficulties existed, which, though obvious from the evidence, the report did not dwell. A certain amount of resentment persisted at the way mature officers were kept to fixed hours of study and put in classrooms like "a lot of schoolboys". The recommendation of the Warde committee on this matter was, however, being put slowly into effect.28 More seriously, it was felt that prospective candidates were deterred from applying because of the widespread conviction that the authorities disapproved of the Class

27. Ibid, report 4.
and its graduates. Major-General Warde's position gave him the freedom to speak his mind on the subject:

... if it was made clearly apparent to the corps at large that those in official positions were as honestly desirous of supporting the Class as it is now almost universally believed that they wish to abolish it, and that instead of officers who seek to avail themselves of it gaining any credit by so doing, they are regarded as men who wish to shirk their other professional duties, the difficulty which would then arise would be in selecting from the number of candidates instead of finding a sufficient number to compete.29

In short, considering the general problems army reform faced in Victorian Britain, and the particular difficulties under which the Advanced Class laboured, it is remarkable that by 1872 it had achieved even a limited success. By then, sixteen P.A.C.s filled high posts in the manufacturing departments, and, according to a number of younger officers, the Artillery College courses had gained acceptance in the regiment generally. Lieutenant Charles Jones summed up majority opinion on this point by remarking that the Advanced Class and its allied courses were unpopular only with "a small section (but noisy) of the regiment who affect to despise science".30

Nevertheless, the impression that the authorities were opposed to the Advanced Class received rapid confirmation. Barely had the report been issued when a regimental circular announced the

29. Ibid, minutes of evidence, 10, and similarly 11-12, 14-15 (Wilmot, Col. W.J. Grant).

abolition of the course as hitherto constituted. Officers desirous of instruction in the subjects of the former Class were to sit a qualifying examination and, if successful, were to educate themselves privately at the School of Mines or King's and University Colleges, London. Prospective candidates were reassured with the promise of assistance with expenses to the amount of £25. per quarter and £100. if the final examination were passed. Protests within the War Office seem to have prompted a reconsideration of this decision. Cardwell resolved to give the class another trial, although the principle of secondment was still not sanctioned. Moreover, the haste with which the War Office reversed its decision gave candidates little time for preparation, and an insufficient number reached the required standard. At length, the authorities agreed to secondment in August 1873, and at a further attempt to re-establish the course, the number of satisfactory applicants was comfortably above the quota. Thereafter the future of the Advanced Class (known as the Senior Class from 1889) was not seriously jeopardized and it developed as the leading course of the expanding Artillery College.

It is appropriate here to survey the College in its mature form and the roles of its various courses. The Advanced Class remained concerned strictly with the latest applied scientific knowledge. Charles Brackenbury's plea for attention to be paid to the bearing of technology upon the art of war found no acceptance and the Class never encroached upon the functions of the Staff College. P.A.C.s

emerged as experts in applied mathematics, metallurgy, and chemistry relevant to military purposes. As the century advanced new subjects such as armour plating, steam mechanisms, and electricity were introduced. 32 In 1894 standards were further raised when the Class was thrown open to competitors from the entire officer corps, excluding the R.E., and to the Royal Navy and Marines. 33 Apart from the R.A.'s right to half the available places, open competition was the only basis on which they were filled. The tiny numbers of the Class - its bi-annual output never rose above eight throughout the period - may lead one to suppose that it was of slight importance. This impression is adjusted when the appointments received by Advanced Class graduates are considered. Between December 1872 and 1876, for instance, twelve had been appointed to posts of vital educational or technological significance, including those of Superintendent and Assistant Superintendent of the Royal Small Arms Factories, Inspector of Gunpowder Factories, two District Inspectors of Warlike Stores, Director of the Experimental Branch of the Department of Artillery and Stores, two Instructors and one Professor of Artillery at the R.M.A. 34 With occasional exceptions, all the P.A.C.s of 1884, 1886, and 1888 received similar appointments immediately upon passing out of the Class. 35 Circumstantial evidence suggests, therefore, that the Class by the late 1880s was fulfilling the role envisaged by its founders, of working, as one subaltern admirably phrased it, "...
beneficially on the regiment, by diffusing a large amount of useful professional information, and exciting an interest in the science of its profession which otherwise would not exist. 36

At other levels, a range of less academic courses provided for the more practical needs of the regiment. Charles Brackenbury, as Director of the College, outlined these classes before the committee of 1888 on the army's educational establishments. Advanced technical instruction was provided by the ten week Long Course held at Shoeburyness annually for a group of about twenty-five selected officers. Specialist training in gummery manufacture could be obtained through the Firemaster's Course, open to R.A. officers of "some standing" and to Ordnance Store officers. The Junior Class was the third regular course for officers, and was attended by subalterns newly commissioned from the R.M.A. A variety of specialist and occasional courses was also run in order to acquaint some officers with new inventions such as telephony, position-finding, and hydro-pneumatic mountings for heavy ordnance. 37 Save for the Junior Class, abolished in 1889, this remained the general pattern of courses until the end of the century. 38

It is not possible to determine exactly what number of artillery officers passed through such classes, but an informed guess may be

38. Queen's Regulations and Orders for the Army (1898), 226-27.
made. Brackenbury's evidence indicates that, apart from those who qualified in the Junior Class, about forty annually took the Advanced, Long, and Firemaster's certificates, and had been doing so for a considerable time. From 1870 to 1888, therefore, roughly 720 officers should have received some form of advanced artillery education, and to these must be added the uncomputed numbers of those who took the occasional courses. By the late nineteenth century the Royal Artillery had developed something approaching a system of full postgraduate education.

The need for every officer to participate in this was never officially accepted. By 1898, the only mandatory instruction for regimental artillery officers was the Junior Class and forty-two days field training at stations where staff officers were available to supervise.\textsuperscript{39} That, in the face of this, the R.A.I. possessed so many members and the Artillery College flourished, shows that at least one branch of the officer corps was hardly unaware of its professional advancement.

With respect to organisation, contemporary debate centred upon two issues; the formation of higher units and the division of the regiment into specialised branches.

During the nineteenth century, the British artillery possessed a structure unique amongst the armies of the great powers. Since its organisation into two battalions in 1747, the Royal Artillery had been one regiment; all officers were on a single list as regards promotion and postings. In harmony with this simple arrangement of personnel, the chief unit of artillery tactics, training and

\textsuperscript{39} Queen's Regulations and Orders for the Army (1898), 233.
administration was the battery. This situation was clearly the outcome of the haphazard development of an arm which had originated as a subsidiary to infantry and cavalry, but in time the organisation of the British artillery had come to be regarded with affection and defended as ideal for a small army with scattered responsibilities. By the 1870s, however, it was an article of faith amongst reformers that such an arrangement was inadequate to the demands of modern training.

As early as 1859 the old battalion organisation of the regiment had been replaced by a system of brigades. Although the chief unit of interior economy and training remained the battery, this was more than a paper distribution of batteries, since reliefs were to take place by brigade.40 Experience soon showed that it was impossible to combine the needs of a detached service with the brigade system in its entirety. Brigades, supposed to serve together, were scattered as before save at the very largest garrisons; Malta, Dover, Plymouth, and Gibraltar. By 1871 there were approximately 100 stations at home and abroad in which the brigade system was merely an administrative convenience for the facilitation of correspondence.41 It was soon suggested, therefore, that it had been misguided to introduce into so small and scattered a service a principle of organisation more suited to the massed and wholly localised armies of the continent. The Horse Guards and the War Office exchanged arguments on this question, the former supporting and the latter (at least in the person of General John Adye) condemning it. Cambridge, speaking for the


Horse Guards, defended the system on the rather vague grounds that it contributed to the esprit de corps of the regiment. Adye declared that it made administrative nonsense, had no effect on training, and was unsuited to the needs of an imperial power. The first brigade, for instance, was scattered amongst Sheerness, Bermuda, Jamaica, and Barbados; the second amongst Ceylon, Mauritius, Singapore, the Cape, St. Helena, and Hong Kong. 42

Shortly after this exchange, and while the MacDougall committee was examining the whole question of army organisation, the Adjutant General of the R.A. undertook an enquiry into the brigade system. His findings may be quickly summarized. Of the eighteen officers examined, all save two were convinced that the brigade system had been a valuable attempt to introduce modern principles of organisation into the regiment, and that to revert to the old arrangement of battalions would be a step in the wrong direction. Of these sixteen, four were in favour of some form of district system, whereby an area rather than an actual unit should be the basis for administration. The remainder proclaimed themselves in support of brigades for staff and other administrative purposes, but believed that for training and fighting the battery must remain the most significant unit. Relief by brigades was generally condemned as disastrous to the efficiency of the larger fortresses, regularly bled, as it were, of the expertise developed within them during garrison periods. The Adjutant General, therefore, recommended minor administrative changes only. In accordance with his suggestions, the number of batteries in each brigade

42. Horse Guards minute, 28 Nov. 1870 and W.O. minute, 28 Nov. 1870, Papers on the Subject of the Organization of the Royal Artillery (1871), W.O. 33/23.
was equalised, and a partial district system was established by dis-
associating regimental colonels from the command of particular
brigades and placing them over military districts at home.
Lieutenant-Colonels assumed direct command of the brigades. 43

As an administrative device, therefore, the brigade system survived.
But the exigencies of colonial warfare ensured that it never became more
than this. Reformers certainly continued to advocate various forms of
higher organisation which should be more than distribution tables and
yet not be so inflexible as to interfere with the far-flung defensive
requirements of the empire. Change in higher organisation, however,
seem to have been little more than reshuffling of the details of
administrative procedure, and could hardly have had much impact upon
preparation for war. These reforms may be briefly summarized.

In 1877, the primacy of the battery as the unit for war was re-
inforced by a regimental order directing that henceforth all reliefs
were to be exclusively by battery. Overseas brigade staffs were
broken up altogether, and the brigades into which the regiment was
organised—three of Horse artillery, six of Field, and five of
garrison—were no more than paper divisions for the convenience of
office work. This arrangement persisted until 1882. 44 In that
year, the artillery was drawn into the localisation scheme. The
Royal Horse was divided into two brigades and given a depot at
Canterbury, the Field into four brigades each with its own depot,

43. Report of the Adjutant-General upon the Organization of the
Royal Artillery, P.P. (C.561, 1872), 14; Callwell and Headlam,
I, 67, 70-71; A.G. was Gen. Sir Richard Airey.

44. Maj. Arthur Griffiths, The English Army (Lond. 1878), 132-33;
G.O. (1877), no. 22.
and the Garrison into eleven divisions. The district system was taken a stage further by the abolition of movable brigade staffs, who were converted into permanent district staffs. Eleven territorial divisions were created to serve the Garrison branch, artillery militia officially became part of the R.A. and formed junior brigades in the divisions. The term brigade petered out altogether in 1889, when the Royal Horse batteries were numbered from A to T, the Field from 1 to 80, and the Garrison organised into three great administrative divisions. Save for recruiting purposes and correspondence, the battery remained the primary unit for preparation for war.

By and large, therefore, the attempt to introduce real higher units of artillery into the British army was a failure. To a continentalist such as Sir Edward May, whose general attitude is clear from his dismissal of the American Civil war as irrelevant for the serious military student, this was lamentable. So long as the artillery service remained one of "detachments", its professional horizons would, in his view, stay equally limited. As he wrote in old age, having at last experienced the great continental war he had so often envisaged, the small war mentality held sway throughout the period:

In those days the army thought in batteries. The Major was supreme in his command, the Artillery Brigade as we know it


did not exist, and the Lieutenant-Colonel was not expected to interfere with the Major unless it were absolutely necessary...

In consequence the rank of Lieutenant-Colonel had become one to which the phrase *otium cum dignitate* aptly applied. So jealous were the Majors of any interference, and so strongly did public opinion in the regiment back them up, that it used to be said that when an officer became a Lieutenant-Colonel "he changed his sex". Such a state of things was very bad for any gunners who had any ambition. It tended to make seniors lazy, and it became very detrimental to Artillery efficiency when guns were employed on any but the comparatively small scale demanded by our little wars. It was a relic of the past...

To more imperially minded reformers, however, that the British artillery did not approximate to continental models was no bad thing. Many officers who were far from conservative were convinced that the battery must remain the primary element in artillery organisation. Nonetheless, they equally accepted that some form of training beyond it had to be established if the fighting ability of the regiment was to keep pace with its technological advance. The Artillery College was helping to close the gap between theoretical gunnery and the practical skills of the average officer, but it was apparent that regular instruction of men and officers in their normal locations was also needed. The battery alone could not properly supply this need. On the other hand, it had not proved possible to apply continental models of higher organisation to the British artillery.

As a compromise, therefore, some reformers suggested the specialised training and organisation of particular branches of the arm. To propose this deeply alarmed conservatives wedded to the concept of the artillery as a vast agglomeration of single batteries. A protracted dispute over the division of the regiment ensued, conducted with extraordinary fervour on both sides.

The reformers' case was strengthened both by technological advances and the crisis of morale through which the Garrison artillery appeared to be passing. Imperial expansion during the last third of the century enhanced the importance of its role as the navy's complement in the defence of harbours and coaling stations. Concurrently, the working of heavy ordnance became increasingly sophisticated. The period under review saw the introduction of hydro-pneumatic carriages, hydraulic mountings, position range-finding, photography, and telephony into the Garrison artillery. At the same time, it was universally acknowledged that the esprit de corps of its batteries was declining and that their practical skills were far from commensurate with the demands of these new devices.

The causes of this situation were plain. Garrison locations, such as Jamaica or Halifax, or even those closer to home such as Portsmouth and Cork, were isolated and exposed. The young officer, especially if single, faced a bleak prospect if posted to a Garrison station. As Major A.W. White gloomily observed:

> In winter, day after day, the rain pours down, and the spray washes over the place; when (the young officer) wants to go

49. For technical information, I have relied upon Callwell and Headlam, I, pt. 2, "Armament".
into the neighbouring town, he has to go in an open boat; he is very lonely; his work is dirty and greasy and carried or in dark holes and corners ... 50

Talented or otherwise, the great majority of officers in such postings cordially disliked them and constantly appealed for transfer. Secondly, time and means for training both men and officers were very limited. No regular concentrations for instruction took place, and batteries which were sent to Woolwich found there almost no facilities for garrison training. 51 Finally, there was the deleterious effect of constant transfers. Since the Crimea, the Garrison branch had been used to maintain the officer establishments of the Horse and Field. The burden of low officer establishments fell upon the dismounted side of the service, and in 1870 the number of subalterns in Garrison batteries had been actually reduced from three to two. 52 Moreover, the inherent attractions of the Field and Horse were augmented by the authorities' habit of permitting a transfer from the Garrison artillery if an officer were particularly well reported upon. Such a practice was damaging in principle. It ensured a constant stream of young officers through the Garrison batteries having no permanent interest therein, and feeling that retention in them was a form of punishment.

By the 1880s, standards in the Garrison artillery were


51. Ibid, 93 (Maj.-Gen. G. Le M. Tupper). Apparently during the 1880s Woolwich Common was closed for six months annually, otherwise the overworked ground would have become a quagmire.

sufficiently low to be causing grave concern in informed circles, and to many reformers it seemed that its problems could be solved only by a complete separation of the mounted and dismounted branches of the regiment. The question had been in the air for some time. In 1872 the German artillery was divided into two distinct services, Field and Garrison. At this date, such a move naturally commanded respectful, but, in the view of one leading artillerist, unthinking, attention in Britain. Major Le Geary argued that the great virtue of the existing system lay in its flexibility, whereby batteries from any branch could be sent wherever they were needed, and officers (allegedly) could cope with any type of ordnance under a variety of circumstances. Prussia's arrangement was inapplicable, he wrote:

(to) our comparatively small army, with the constant obligation of being prepared for war on a small scale. To inflict upon our army such an artillery organisation, would produce the same results, probably, as would ensue from arming a dwarf with the club of Hercules.

It was inaccurate, however, to see the advocates of division as simply responding to the German example. Concern that the Garrison artillery was inadequate to its role in imperial defence and to specialist demands of modern technology were the driving forces behind the issue, as the relevant enquiries of the 1880s were to show. Moreover, H.W.L. Rime, whose resistance to continental examples has been noticed above, urged division in a letter of 1870


to the Warde committee. In response, its report pronounced itself firmly on behalf of the regiment "one and indivisible". Warde also expatiated upon the "beauties of our existing organisation" before the enquiry into the brigade system. Despite the Warde committee's progressive views on education, its members seemed to be unaware of the effect of allowing the cream of artillery officers to enter the mounted branches. "We consider it", they reported:

... to be of essential importance ... that every officer, on joining the corps should be posted, as formerly, to garrison brigades, and that appointment to horse and field brigades should be by selection, which should be decided by the character made for themselves by the young officers, as regards smartness, zeal, and attention to their duties.

There the matter rested, until agitation in the service press led the authorities to reopen examination of it in 1886. Colonel R.J. Hay, the then Adjutant-General of the Royal Artillery, composed memoranda which tentatively endorsed the case for division and suggested the formation of seven distinct regiments. Hay also criticised the time-honoured but slightly illogical principle of using Garrison batteries as mountain artillery on the North West
frontier. Shortly afterwards, the secretary of state, W.H. Smith, appointed a committee under his financial secretary, Sir H.S. Stafford Northcote, to assess the regiment's ability to supply two army corps with the necessary artillery. During its deliberations, the committee discussed the question of division and marshalled authoritative testimonies as the poor standard of Garrison artillery officers. But its recommendations were simply that Garrison isolation should be reduced by regular concentrations for training, that every battery should have three subalterns, and that mountain artillery should be localised in India in order to reduce the call upon Garrison batteries. The last two proposals were eventually put into effect, although the restoration of the third subaltern was accompanied by the abolition of the Junior class.

Limited perhaps by its terms of reference, the committee came to no conclusion on the issue of separation, but the findings prompted the appointment of a full-scale enquiry into artillery organisation. This provided the forum for a vigorous clash of opinions between the Duke of Cambridge and certain elderly officers on one hand, and Wolseley and the majority of the younger witnesses on the other.

58. Memoranda of 15 April and 20 May 1885, W.O. 33/46. Hay believed, however, that the regiment should remain unified for administrative purposes ("Memorandum on Artillery Organization", 18 July 1885, Wolseley Papers, W/MEM 1).


61. Report of the Committee on the Organization of the Royal Artillery, op. cit. Tabular statement of evidence:

<table>
<thead>
<tr>
<th>Rank</th>
<th>Advocated Separation</th>
<th>Opposed Separation</th>
<th>Total</th>
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<tbody>
<tr>
<td>Generals</td>
<td>3</td>
<td>7</td>
<td>10</td>
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<tr>
<td>Colonels</td>
<td>5</td>
<td>4</td>
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<td>Lieut.-Cols</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Majors</td>
<td>2</td>
<td>11</td>
<td>13</td>
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<td></td>
<td>19</td>
<td>15</td>
<td>34</td>
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</table>
Much purely instinctive antipathy to change was apparent in the evidence of some senior officers. Cambridge predictably exemplified this attitude. The artillery, he believed, was in excellent shape. "Who has ever heard of anything going wrong?", he asked rhetorically, none of the committee's members venturing a reply. To his mind, the urge for separation was generated only by Horse and Field subalterns who wished to stay in the more glamorous side of the service: "Every man has a fancy, but what do these young gentlemen know about it? Nothing. A young gentleman likes to mount a horse, that is all he cares about, and therefore he says, "I wish to have the corps divided." 62

This allegation was reiterated in almost all defences of the existing system, including those based primarily upon more convincing arguments. As Lieutenant-General Sir Archibald Alison somewhat sharply pointed out — not indeed to the Duke but to Colonel Markham (Dep. A.-G., R.A.) — such assertions were irrelevant to the evidence before the committee, which had heard no direct opinions of officers below the rank of major. Three generals, seven colonels, and nine majors could hardly be said, Alison remarked drily, "to be young Officers who have no experience and who merely prefer to ride". 63

Moreover, as witnesses repeatedly stated, the main drive for separation came from within the Garrison artillery. 64

The Duke's complacent dismissal of its problems arose in part from a rather disdainful attitude towards the dismounted side of the regiment. Social prestige lay with the field gunners (especially

63. Ibid, 170-171.
the Royal Horse), and this perceptibly inclined some officers to down-grade the Garrison artillery's importance. To Major-General W.J. Williams (Commanding R.A., Aldershot), for instance, the Royal Horse were an elite corps, the Garrison an "inferior service" and its officers manifestly not the equal of their colleagues in other branches. He replied in the affirmative to a loaded query from Henry Brackenbury: "Do you think that the proper place for an Officer who is discarded from the Field Artillery is the Garrison Artillery?" As in the cavalry controversy, questions of social prestige were interwoven with professional judgments.

Such discrimination perhaps helped to shape a scheme drawn up by Colonel Markham which seemed to aim at keeping the Garrison artillery in its subordinate role. He proposed that a subaltern, upon passing out of the R.M.A., should be posted first to the mounted branches, then to the Garrison artillery, and then permanently to whichever side it was judged that he was the more suited. But Markham made it clear that a young officer's wishes would be respected if he were well reported upon. Thus, as the majority wished to enter the field side, Markham's proposal was designed to perpetuate the system whereby subalterns who received mediocre reports spent most of their careers in Garrison batteries. Because most young officers only wanted to go in one direction, Markham's point that a

65. Ibid. 86-91, quo. 89.

66. Ibid. appendix I, 207-15, and 165-85 (evidence of Markham). He stated that, as D.A.-G., he received numerous applications for postings from the friends and relatives of cadets nearing the end of the R.M.A. course, and virtually all requested commissions in the Horse or Field. His decision rested upon reports of the cadet's personal qualities and claims arising from the services of his family. Ibid. 4, 164.
poor report would prevent transfer in either direction had little bearing on the case. By condoning the principle that entry into the mounted branches was a reward for good service, he was advocating, in effect, that the Garrison artillery continue to be "the penal settlement" of the regiment.67

In support of his suggestions, the D.A.-G. adduced the well-worn argument that the current organisation had proven itself in the test of actual war and was eminently suited to the needs of a colonial power. This view was endorsed by other influential officers, including General Sir John Adye and the Inspector-General of Artillery.68 But the outlook of such officers was essentially retrograde. The examples they used most frequently were the Crimea, where Garrison gunners reinforced the Horse and Field before Sebastopol, and the Indian Mutiny, when again Garrison gunners went on field service. Such makeshifts of smoothbore days were hardly relevant to the 1880s, and in any case, as the critics pointed out, had merely made the best of an "incredibly bad" system.69 As Henry Nile somewhat disrespectfully quipped: "When Gulliver had no fire engine to put out a fire in a certain city he used other means".70

Such problems as patently existed in the Garrison artillery were attributed by Markham and those of like mind solely to the shortage of officers. Throughout most of the 1870s and 1880s, the number of effective artillery officers was some sixty to ninety below the

67. Ibid, 97 (Col. J.B. Richardson, Chief Instructor, Royal Military Repository).
68. Ibid, 17-24, 269-73; also see Adye's Recollections of a Military Life (Lond. 1895), 249.
70. Ibid, 60.
minimum required for the establishments as laid down by the estimates. The inability or refusal of the authorities to second officers attending the Artillery College (with the exception of those in the Advanced Class and Indian officers enrolled in the Long Course) affected all branches to roughly the same extent. But low establishments had damaged the Garrison artillery to a disproportionate degree in that, until the mid-eighties, field vacancies were automatically filled at its expense. It was the Garrison batteries which lost their third subalterns in 1870. Therein, in Markham's view, lay the whole problem. Restoration of the third subaltern would see an end of the agitation to divide the regiment. Transfers would be reduced, the burden upon battery officers lightened, and proper levels of efficiency attained.

The supply of officers was, however, only one aspect of the problem, as the evidence of the proponents of division demonstrated. To summarize their points of agreement first: it was generally felt that only by making the Garrison service virtually a separate profession could their sense of inferiority be removed and esprit de corps restored. All concurred in the proposal to render the dismounted service more congenial by introducing additional ("armament") pay for all ranks, and reserving for Garrison officers certain manufacturing posts in the Royal Arsenal. The specialised skills of officers should be improved by obliging them to commit their careers from the first to one or other side of the service.

71. Ibid., 167 (Markham).
72. Ibid., 191-200 (Maj. J. Ritchie, who had been in R.A. administration for 27 years).
73. Ibid., 167.
Many instances of low professional knowledge amongst Garrison officers were adduced by witnesses. Henry Brackenbury recounted an episode in 1878 at Newhaven, when a 9-inch gun was sent thither to be mounted on a Moncrieff carriage. The captain of the Newhaven battery was away, the subaltern had just arrived from a Field unit, and the Major had not seen a heavy gun mounted for twenty years. Finally, recourse had to be made to Shoeburyness for expert assistance.\textsuperscript{74} That many officers did not sufficiently understand the material they were working with was plainly attributable to the inordinate level of transfers. This in turn arose from the practice of granting transfers as a reward for good service rather than from the low establishments. Major S. Gardiner estimated that from October 1884 to October 1887, 95 of 110 Horse artillery officers were transferred, 311 of 400 Field, and 350 of 453 Garrison.\textsuperscript{75} Most were therefore "birds of passage",\textsuperscript{76} rarely long enough with a battery to develop a real interest in it or to gain a proper understanding of position gunnery.

Regimental feeling definitely lay with the advocates of division. A number of officers remarked upon "great restlessness" and discontent abroad in the regiment, and maintained that the subject had been under discussion for years, with the majority of officers below the rank of colonel in favour of the reform. As Colonel Yeatman-Biggs remarked: "The only strongly dissentient voices that I have heard have been amongst the superior Officers".\textsuperscript{77} Nonetheless, the younger reformers

\textsuperscript{74} Ibid, 43.

\textsuperscript{75} Ibid, 130.

\textsuperscript{76} Ibid, 27 (Lieut.-Gen. H.A. Smyth, member of Ordnance Committee).

did not lack support in the senior ranks. General Sir Charles Arbuthnot, formerly Adjutant-General, had been urging division since the early seventies. Sir Archibald Alison, Brackenbury, and Colonel R. Harrison pointed out that, with the separation of the mounted from the dismounted branches:

The Garrison Artillery, having trained its Officers, will be permitted to keep them, even if they are of exceptional ability and smartness, and will not be called up, as now, to give the pick of its Officers to the mounted branches ...

Most notably, Lord Wolseley was categorical on the issue. He fully agreed with the opposing side as to the special requirements of colonial service; wherein he differed was as to the degree of specialisation needed to meet these. Indeed, he envisaged the eventual subdivision of the artillery into a number of small regiments in order to meet the increasingly disparate imperatives of coast and fortress defence, mountain warfare, and field service: "the necessary tendency is to subdivide". Discontent with the traditional system, he believed, was widespread amongst the "younger and more educated portion" of the army.

78. In evidence, Major Ritchie stated that Arbuthnot's spell in administration had caused him to execute a volte-face on the issue, (ibid, 191-200). But in a letter of protest to Markham, Arbuthnot reiterated his earlier stand and wrote that Ritchie's evidence could have arisen only from some "extraordinary misunderstanding on his part." Correspondence as to Evidence Given Before Committee on Organization of R.A. P.P. (1888), 67.


80. Ibid, 7-14, quos. 7, 8.
Finally, it is interesting to note that the senior officers who supported Wolseley in evidence before the committee were involved in practical instruction. Acquainted with the capabilities of junior officers, they were rather sceptical of the time-honoured and idealistic interpretation of the regiment's motto: *Ubique*. Colonel Charles Brackenbury, who had spent his entire career teaching officers and was currently Artillery College Commandant, judged that it was impossible for Field artillery subalterns and captains to add a sound knowledge of Garrison duties to their proper skills. This opinion was confirmed by Colonel S.J. Nicholson, Commandant of the School of Gunnery, who in fact wanted specialisation to begin at the very commencement of the R.M.A. course. Similar views were expressed by Lieutenant-General H.A. Smyth, formerly Commandant at Woolwich, and Colonels C.C. Trench and J.B. Richardson, respectively Chief Gunnery Instructor at Shoeburyness and Chief Instructor of the Royal Military Repository.\(^81\) Their comments form a striking contrast with the insistence of Markham, Adye, Biddulph, and Goodenough — officers all occupied with administration — upon the unity of the artillery profession.\(^82\)

Despite the tenor of the evidence before the committee, its report was a rather confused document. It condemned the principle of using the Garrison artillery as a reserve to the other branches, and recommended that each section bear the burden of its own vacancies. To reduce the isolation of Garrison gunners, the committee advised concentration of batteries in each district command at some central


\(^{82}\) *Ibid*, 32–37 (Goodenough).
station, at least during winter. Schools of instruction should be formed in each command and the Garrison officers should receive armament pay. Beyond this, the members of the committee found unanimity impossible, dividing over the issue of separation. The chairman, Harrison, Henry Brackenbury, and Alison recommended that, after two years in each branch, a subaltern should be committed to a career in Garrison or in Horse and Field artillery. Biddulph, Markham, Major-General William Stirling and Ralph Knox, the Accountant-General, dissented.83

Its inconclusion on the main issue, however, did not render the committee's work nugatory. Regimental feeling on the subject and the defects of the existing organisation had been brought to public attention, and it became increasingly difficult to maintain that the artillery officer could become an adequate all-rounder. The entire committee had forcibly stressed the implications of the low standards of the Garrison artillery for imperial defence. Under the traditional arrangements, they wrote:

... no higher reward can be offered to an exceptionally good officer of Garrison Artillery than his transfer from that branch ... That such feelings should exist with regard to a service of pre-eminent importance, to our Colonies and to our Indian dependency (with a land frontier, as well as a sea-coast to protect), the Committee view with the very strongest apprehension.84

Military journals continued to discuss the subject. Maurice allowed his United Service Magazine to become a forum for debate

83. Ibid, iii-xiii (unanimous report), xiv-xviii (divided reports).
on the issue, and it was implicitly made part of the R.A.I. Prize Essay topic for 1891. Only one author of the four essays published considered himself bound by the prescribed title to eschew the question of organisation. Nevertheless, he subitled his contribution with the proverb quoted by Wolseley to the Harris committee: "Jack of all trades is master of none". The other three writers insisted that all reforms in training would be vitiated "unless something is done to give the officers of the Garrison Artillery a more permanent interest in that branch than they have at present".85

At length, on the eve of the South African war, an army order divided the regiment into two corps. Colonels were to be described as belonging to the whole regiment, but all officers below them performing regimental duties were to be appointed to the Royal Garrison artillery or to the Royal Horse and Field. Save in exceptional circumstances, officers could not transfer from one branch to the other. With a wise obeisance to tradition, however, the ancient title of the Royal Regiment of Artillery was retained.86 Provisions for Garrison armament pay accompanied the reform.87 A few months


86. A.O. (1899), no. 96.

previously, the Artillery College had been renamed the Ordnance College, and transformed into an army rather than a regimental institution, a tribute to its growing prestige and standards. 88

Debate over officer education in the Royal Artillery provides a fairly clear-cut instance of reform versus reaction in the Victorian army. Observation of continental examples gave the immediate impulse to found the Artillery College; thereafter the institution developed its own strengths and impetus. Issues of organisation caused a more complicated pattern of opinion to emerge. Most reformers appear to have become rapidly convinced that Britain could not emulate the continental powers in maintaining higher units of artillery. Attention became concentrated upon the need for professional specialisation. Advocates of division certainly seem to have spoken for a relatively young and progressive sector of the officer corps, though their opposition cannot be regarded as purely conservative. Sir John Adye was the very reverse of a bow-and-arrow general, while Biddulph, as Cardwell's biographer, was a Cardwellite of the purest water. Dispute over artillery organisation, therefore, arose not only from the natural resistance of conservatives to change, but from differing interpretations of the needs of imperial defence.

88. Callwell and Headlam, II, 384.
CHAPTER 7.

Supply and Transport: Experience and Debate.
Few aspects of Victorian military history display more clearly Britain's differences from her continental neighbours than the logistics of her colonial campaigns. These were, as Sir Charles Callwell often remarked, wars against nature more than against man; it was generally more difficult to reach the enemy than to defeat him in battle. Communications in small wars exemplify the disparity between the late Victorian army's active service and certain European-oriented aspects of its domestic organisation. Nonetheless, colonial warfare prompted much discussion of supply and transport systems. The ensuing chapter assesses the degree to which practical reforms emerged from this experience and continual debate. Pertinent developments up to 1830 are outlined first, then two Victorian campaigns are discussed in some detail, and finally the sequel at home to these and similar wars is analysed.

Two main features of foreign supply and transport systems seem to have impressed themselves upon British observers: military control of supply and communications, and the existence of distinct transport departments. During the 1860s, it was the French Intendance which attracted most admiration in Britain. In constitution, the Intendance corps was wholly military; its officers formed part of the General Staff. All supply services and army transport (the Train des Equipages Militaires) came within the province of the Intendants, although they did not control the permanent cadres of regimental transport. In war, an Intendant of the relevant rank was to be attached to the commander of each army, and to the general of each army corps and division. Italy seems to have followed the French
model closely.¹

Developments in the Prussian army during the 1860s were based upon the concept of articulation, namely, that upon mobilisation a supply and transport network should be formed stretching from the field of operations to the home base. The idea was summed up by the German term *etappen*, meaning not only the unified organisation of communications but the command structure it involved. Significantly, the word had no precise equivalent in English. From the Austro-Prussian war onwards, control of communications formed a distinct command in the Prussian army, under a general officer and his staff. This included officers of the General Staff, the engineer and medical services, the railway department, and an Intendance similar to the French but exercising less power. As part of the articulated system, German corps transport was highly developed. The principle was that each corps should possess, in peace as well as war, its own permanent and military transport to convey supplies between its immediate zone of activity and the depots of the nearest branch of the line of communications. All other transport was the responsibility of the Intendant-General, under the command of the Inspector-General of the

etappen. In Russia too, after the Crimea, food and general supplies and ordnance services were combined under a Chief Intendance Board. During the Russo-Turkish war of 1877-78, independent troop transport was organised under the command of officers in the field.

In all major continental armies, the existence of permanent railway units was in striking contrast to their absence in Britain. Not until after the Egyptian campaign of 1882 did the British army possess even a nucleus of trained men for railway work, whereas military control of Prussia's railways was well developed before 1870. After the Franco-Prussian war it was carried further when the Railway Division became part of the General Staff and composed schemes to employ Germany's railway network in time of war. Furthermore, in 1871 a Railway battalion (later a regiment) was formed to supply the army with technicians and, being a standard military unit, could be expanded when necessary with reserves in the normal way. Similar developments occurred in France and Italy.

2. "The Transport Corps of Germany and Austria-Hungary", transl. from the Russian Voenni Sbornik, in Army Service Corps Journal 3 (1892), 32-85, ibid, 4 (1893), 29-34; Prussian Etappen Regulations as Revised from the War of 1870-71, transl. Lieut. Donatus O'Brien, ed. Lieut.-Col. W. Lennox (Portsmouth 1875); Report of a Committee under Ralph Thompson, Assistant Under-Secretary of State, (1876), 20 (Capt. J.W. Hozier), W.O. 52/6071; Extract from Report on the Prussian Army by Lieut.-Col. E. Reilly (11 Aug. 1866), 497-98. Strathnairn Report; "Memoranda on Transport Arrangements in the Prussian Army by Colonel Beauchamp Walker", (1865), 498-504. Strathnairn Report P.P. (C.3848, 1867), 15. However, as Professor van Creveld has shown, the German etappen of the 1860s was rather more impressive on paper than in reality; it collapsed during the Franco-Prussian war and the invading troops were forced to live off the French countryside. Martin van Creveld, Supplying War Logistics from Wallenstein to Patton (C.U.P. 1977), 85-96.


of the period under review, foreign systems of supply and transport seemed to be far more sophisticated than their British counterparts. The civilian element was reduced to a minimum, the line of communications had become a recognized branch of military science, and national railroad infra-structures rendered an integral part of the preparation for war.

Within Britain, the late nineteenth century was marked by a steady clarification of the functions of military supply, storage, and manufacture. A few words may suffice upon the last two services, with which this chapter is not directly concerned. The old Store Branch had been replaced by the Military Store department in 1857. Four years later it was committed to the Director of Stores and its superintendents received relative rank. In 1865 the Army Ordnance Store corps was created by Royal Warrant, and in the reorganisation of 1870 it became the second executive branch (as the Military Store department) of the newly formed department of Control. With the establishment of the Ordnance Store department and corps in 1881, the ordnance received its modern form as a distinct service incorporating a regular military unit. Thereafter an increasing proportion of the executive work of manufacture and storage was carried out by civilians, who were employed side by side with Ordnance corps rank and file. All came under the command of the officers of the Ordnance Store department, numbering 126 in 1893. Royal Artillery officers almost monopolised the higher manufacturing posts until 1888, when the Morley reforms threw open such appointments to civilian experts, and "drove the first wedge into the bastion of military control which had
dominated the factories from time immemorial ...".\(^5\)

The origins of the Commissariat were not only purely civil but financial. It was a subsidiary of the Treasury until 1854, when it was transferred to the War department, and some years later formally constituted as the Commissariat department.\(^6\) This reform was accompanied by an attempt to infuse a military element into the refurbished service; subalterns of two years standing could henceforth be recruited, but were obliged to resign their commissions if they desired a permanent Commissariat post.\(^7\) The new department, therefore, remained effectively civilian. Supply and transport were altered as much as the body of the army by the great reorganisations of the Cardwell era. In 1870, the creation of the department of Control drew all administrative services of supply and conveyance into a single body, headed by the Surveyor-General of the Ordnance. These changes were part of the reordering of War Office business into the areas of supply, finance (under the Financial Secretary), and command (under the General Commanding-in-Chief).\(^8\)

5. O.F.G. Hogg, The Royal Arsenal Its Background, Origin, and Subsequent History (O.U.P. 1963), II, 787-907, (quo. 859), covers the late Victorian period. This and A. Forbes, A History of the Army Ordnance Services (Lond. 1929), II, 11-156, are the chief secondary sources. Also see Walter Bargery, A Summary of the History of the Army Ordnance Department and the Army Ordnance Corps (1916); Army Book, .281-82. The minutes of evidence before the Morley committee are a mine of information on the manufacturing departments before 1887: Report of the Committee Appointed to Inquire into the Organization and Administration of the Manufacturing Departments P.P. (C.5116, 1887), 14.


Control, replacing the former fragmentation of services amongst the Military Train, Commissariat, Barrack, Purveyor's, and Military Store departments, exemplified the overriding influence of continental models in the sixties and early seventies. In 1867 a major enquiry under General Lord Strathnairn recommended the formation of a control department explicitly on the model of the French Intendance. As Queen's Commissioner with the French army during the Crimea, Strathnairn had an intimate knowledge of its administration. His committee's proposal was based upon evidence taken at a time when France was regarded with admiration by the military world. The fanfare with which Control was introduced, and the disconcerting brevity of its existence, often led contemporaries to regard it as an unfruitful experiment.

In some ways it does appear to have been a foreign graft which failed to take on the English tree. The Commissariat retained its hold upon transport. Hopes of giving that body a military character came to nothing. Pay and the nature of the work made the Control department unappealing to most officers, so that although it was open to the army, most recruitment was from outside by way of civil service examination. The political nature of the Surveyor-General's appointment (the office of "Chief Controller" in the Strathnairn recommendations) reinforced the civilian character of administration. Control Officers were also accused of being supercilious, inefficient, and liable to offend the


army officers with whom they worked. 12

This growing volume of criticism led to the abolition of Control in 1876 and its replacement by a Commissariat and Transport department. Yet the failure of the Strathnairn scheme was more ostensible than real. Efforts to transform the Commissariat into a military unit persisted. The retention of a supreme head of supply services gave at least some unity of direction to their administration. 13 Under its Director and freed from the process of supplying troops, the department of Artillery and Stores could develop with comparative independence. Formation of the first store depot at Woolwich in 1878 gave the army a centre where goods for overseas service could be sorted, examined, packed and dispatched. 14 Following an enquiry in 1874, contracting both at War Office and district command level was placed under a uniform system. 15 These and subsequent reforms reflected increasing readiness to think in terms of the entire organisation of communications, from the home to the war front.


13. Appendix I summarizes War Office organisation from 1870 to 1888.


Those who wished to militarize the Commissariat scored a notable success in January 1880, when a Royal Warrant directed that all recruitment therein from civil life should cease. The department was to be divided into two sections: the subordinate section, composed of warrant officers, and the superior, composed of officers holding full army commissions. All new appointments to the superior division were to be for five years only, and officers receiving them were to be seconded from their regiments. Thereby, it was hoped, a Commissariat reserve would be built up as a corps of experts scattered throughout the army, who could be drawn upon in an emergency. In accordance with the military standing of the department, it was given a new chief in the form of a Commissary-General on the staff of the G.O.C.-in-C.\textsuperscript{16} Obviously, this reform was a signal triumph for military professionalism, but one whose effects would be felt only gradually. By 1883, only about one fourth of the Commissariat was of military origin.\textsuperscript{17}

In the short term, moreover, many commissaries regarded the principle of temporary appointments as a threat to the integrity of their corps. Their disquiet was paralleled at War Office level. George Watt, the new Commissary-General (H.Q.), felt that he had no real function and that his position was "anomalous and humiliating".\textsuperscript{18} These changes, therefore, added to the long-standing conflict between those who wished to augment the military element in the Commissariat and those who did not.\textsuperscript{19}

\textsuperscript{16} Ibid, 611 16.
\textsuperscript{17} Ibid, 170 (Sir Arthur Haliburton).
\textsuperscript{18} Ibid, 717, 453 (statement by and evidence of George Watt).
\textsuperscript{19} Evidence accompanying untitled report of committee on the Commissariat (1876), W.O. 32/6071.
There was no clarification of responsibility for transport before 1870. A Military Train had succeeded the Land Transport Corps of the Crimea, but its powers were never officially defined. This was reflected in the variable procedures, often accompanied by acrimonious disputes, adopted in the course of operations. During the Third New Zealand war, for instance, control of transport oscillated between the supply department and the naval contingent. In the Abyssinian campaign, after a struggle with his Commissary-General and the Bombay government, Sir Robert Napier instituted a separate Land Transport Corps. When Control was formed, however, the Military Train was abolished, and transport was officially committed into the hands of supply officers. Arthur Haliburton, as head of "Control 2" received administrative direction of transport and travelling services. In the field, controllers and, from 1876, commissaries, were "to supply and direct all land and inland-water transport". How little this was adhered to in active operations will be shown below.

Before these are discussed, some remarks upon professional discussion of communications may be made. Most late Victorian soldiers were aware of the revolutionary implications of railways and telegraphs. Indeed, they could hardly be otherwise, with the example of Prussia in 1870 before them, telegraph offices established


at every major railway terminus in Europe, and the steam engine on sea
and land so compelling a symbol of industrial progress. One can find
lectures and articles of considerable insight on the significance of
this technology for the structure of command and the power of the home
government, for strategy and staff planning. However—and surely
this arose from the late Victorian army's limited experience of sophi-
sticated warfare—such writings tended to be divorced from current
problems of supply and transport. As T.M. Maguire wrote pointedly:

While looking at the stars we may tumble in a ditch; and
while lost in wonder at how to move effectively from Strasbourg,
Mayence and Metz towards Paris with many divisions of cavalry
and armies consisting each of from three to eight corps, we
may forget how to handle a few battalions in the passes of
the Suleiman Range or in the deserts of Upper Egypt.

At the other extreme, rule-of-thumb advice and random jottings
gleaned from colonial experiences abounded, scattered throughout
hundreds of reminiscences in books, articles, and lectures. There
was a general lack of professional discussion of communications which,
although possessing an element of theory, addressed itself to prac-
tical issues. The wildest fancies could receive solemn attention.
One writer envisaged the entire British coastline guarded by inter-

24. E.g.: Capt. C.E. Luard, "Field Railways, and their General
Application in War", J.R.U.S.I. 17 (1873), 693-724; Lieut.-Col.
Robert Home, "On the Organization of the Communications of an Army,
Including Railways", Ibid, 19 (1875), 382-98; Lieut. J.M. Grierson,

25. "Our Art of War as 'Made in Germany'", U.S.M. n.s. 13 (April-
Sept. 1896), 126.

17 (1873), 904-921; Maj. C.B. Morgan, Hints on Bush Fighting (Lond.
1892); David E. Burn, Notes on Transport and Camel Corps
(H.R.S.O. 1897)
locking rings of military railways, manned night and day. Another predicted "A Coming Revolution in Military Locomotion"—mounting infantry on roller skates. In this, he hoped, the British army at last would "anticipate others, and not follow them".  

For the commissariat services, as for other aspects of warfare, the effect of the new technology in communications was indeed revolutionary. Even though its impact upon the British forces was greatly modified by the terrain and scale of their colonial campaigns, by the late nineteenth century a fundamental change had been wrought in the position of commissariat officers. No longer were they functionaries of great power, virtually severed from the home authorities and charged with almost every stage of the gathering and delivery of supplies in the theatre of war. The telegraph permitted the development of a world-wide system of contracts, organised from Woolwich and the War Office. In small wars outside of India, most of the general and war-like stores were provided from the home base. Reliance upon railways and telegraphs in the field of operations further restricted Commissariat functions. Railways were variably under commercial or military direction in Victorian campaigns. Field telegraphs, however, (as distinct from mainline) were constructed and controlled outside of India by the permanent R.E. telegraph company. This, with the Institution of Army Signalling and Telegraphy, was established in 1869.  

Plainly, civilian authority within the theatre of war was becoming increasingly out of place, but its cessation was a matter of many years.


28. A.C. (1 Feb. 1869), clause 21, W.O. 123/7; Brief Chronological Statement of Important Events Connected with Army Administration since 1858, Wolseley Papers, W/PR, 112.
While the choice of campaigns as case-studies in this chapter has been somewhat arbitrary, the Zulu and Egyptian wars are both of intrinsic importance and make an interesting study in contrasts. The first bore what are sometimes assumed to be the hallmarks of Victorian campaigning; ad hoc preparations and initial defeats followed by hasty makeshifts at unwarranted expense. To contemporary reformers, the war was a performance of the old school associated with the Duke of Cambridge. The part played by Sir Garnet Wolseley, who succeeded Lord Chelmsford as High Commissioner in the eastern portion of South Africa on 29 May 1879, was limited to mopping-up operations; the capture of the Zulu King Cetewayo, and the suppression of the Basutu Chief Sekukuni. Even at a celebratory banquet he could only be rather lamely toasted as "... the finisher-up of the Zulu war, and the conqueror of Secocoeni".29

The Egyptian expedition, on the other hand, was a campaign par excellence of the Wolseley ring, both in style and leading personnel. Only three officers under Chelmsford's command in South Africa can be regarded as members of the ring: Colonel H. Evelyn Wood, Lieutenant-Colonel Sir Redvers Buller, and Major-General H.H. Clifford.30 In the Egyptian expeditionary force, those closely associated with Wolseley included Captain E.T.H. Hutton, Major H.J. Hildyard, Brigadier-General Sir Baker Russell, Captain Henry Hallam Parr, Major-General W. Earle, Lieutenant-Colonel W.F. Butler, and Major J.F. Maurice, besides Evelyn Wood.31 To the general public,


30. Narrative of the Field Operations Connected with the Zulu War (Intelligence Branch 1881), appendix A, 141-54.

Wolseley's achievement seemed to be flawless, a repetition on a greater scale of his swift, economical performance on the Red River in 1870 and in West Africa three years later. It is illuminating to consider how far this was true of the supply and transport arrangements of the campaign, and to what extent it shared with the Zulu war the general defects or limitations of Victorian warfare. In both cases it is instructive to assess each of the campaigns in terms of the infrastructure which was established to support the forces in the field of operations.

Like the carrier in West Africa, the pack-mule on the North-West Frontier, or the railway in Europe, in South Africa the ox-drawn waggon was the basic unit of the lines of communication. The deliberate pace of the ox enforced a kind of slow motion upon military operations. If drawn by animals in peak condition, waggons covered eleven or twelve miles daily. This laborious transport worked within an enormous theatre of war. The Transkei and Zulu wars were conducted over an area of some 9,000 square miles, mostly devoid of regular roads or bridges. Apart from two lines running from the Lower Tugela and Doornberg to within a few miles from the base at Durban, there were no railways. Initially there were no field telegraphs, and cables were never used to assist the tactical movement of troops. Signalling and earthen tracks, rarely capable of taking more than one wagon abreast, alone provided the means

32. Lieut.-Col. W.F. Butler, Report on Transport Arrangements in Natal, Zululand, etc., 5-6, W.O. 33/36. On oxen see Narrative of the Field Operations Connected with the Zulu War of 1879, op. cit. appendix E; Chelmsford to Col. Frederick Stanley, War Secretary, 2 May 1879. Further Correspondence respecting the Affairs of South Africa, 10-12. P.P. (C.2367, 1878-79), 53.

for contact among the scattered forces. Thus the advanced camp at Ekowe, for instance, was severed from regular communication with headquarters for three months, until the crudest of heliographs - "an eighteen-penny bedroom looking-glass" - was devised.\(^{34}\)

Therefore, although transport facilities were not quite so basic as in Ashanti (makeshift bridges and the backs of indigenous carriers) the theatre of war was largely a vacuum so far as modern communications were concerned. The vast distances and the absence of facilities taken for granted in Europe complicated, as J.F. Maurice later wrote, "every military problem to a degree not readily intelligible to the student of European warfare alone."\(^{35}\)

By January 1879, Sir Bartle Frere, the High Commissioner, had given Chelmsford full responsibility to break the Zulu power. He had already decided to adopt what Kitchener was to establish on a much grander scale during the South African war: the column system. After reshuffling his plans several times, Chelmsford resolved to invade Zululand with three columns, converging upon the king's kraal at Ulundi. Each was to be as independent as possible with respect to command, subsistence, and conveyance. Fourteen posts were established to serve as a series of depots, including that at the base, Durban. Two further European columns were to remain behind, one at the Limeberg depot and one to guard the Natal frontier. No proper staff organisation of communications emerged.


Towards the end of May Major-General Sir Henry Clifford was belatedly appointed Inspector-General of Base of Communications, but he received no formal powers of command.  

More decisive steps were taken as to the vexed question of transport control. In contradistinction to the regulations, Chelmsford formed a transport department partially independent of supply. Column transport was intrusted to an officer specially appointed in each force. Base and communications were divided into three zones, each under a military Director charged with the "entire control, payment and working" of the transport in his area. Chelmsford established, therefore, a transport department distinct from the Commissariat. Whether he encroached upon their preserves as a matter of principle or purely from force of circumstance is not quite clear. Some years earlier he had supported a proposal of Arthur Haliburton to work out gradually the civilian element from the supply department. At a later stage in the war, Chelmsford expressed dissatisfaction with the amalgamation of supply and transport introduced by Control. Nonetheless, he authorised his new arrangements in a distinctly apologetic manner. Officially, at least, he stated that they were emergency measures, and wrote:


I shall be very glad to return to the normal system, when I feel that the Commissariat department is able, from its own numerical strength, to carry on the executive duties of transport as well as those of supply. 40

Moreover, his Commissary-General, Edward Stickland, retained on paper a general administrative control of transport, and through him were to pass all orders to the three directors. 41 Wolseley, by comparison, never apologised for restricting departmental powers.

Chelmsford introduced the column system, therefore, in a somewhat confused and hesitant fashion, failing to combine it with overall strategic or logistical direction. Instead of holding his forces close to Durban, supplying them with the railways, and waiting until his depots had been sufficiently developed to permit a concentrated drive to Ulundi, he sent almost self-contained units far into enemy country, with no clear purpose other than to make their way eventually to the king's kraal. Until Chelmsford rearranged his forces in April, his right and left columns remained in their advanced positions, "eating their heads off", as Wolseley crudely put it, 42 and fulfilling no useful strategic aim. Constantly drained of stores to supply these columns, the advanced posts were merely conduits, lacking the reserves to support a rapid and substantial invasion. This dispersion of forces was condemned at the time (since it had begun with a


42. Wolseley to Stanley, 18 July 1879, Wolseley Papers, SÀ2.
disaster) as a violation of one of the few principles of war to which British military writers paid much attention. Upon his arrival in South Africa, Wolseley adumbrated the point with dramatic communications:

Flash immediately to Chelmsford the following message from me ... Concentrate your force immediately and keep it concentrated. Undertake no serious operations with detached bodies of troops. ... I strongly object to the present plan of operations with two forces acting independently of each other, and without possibility of acting in concert.

The poor coordination of Chelmsford's subordinate commands had obvious repercussion upon the line of communications. Since the magazines were insufficiently developed, an excessive amount of stores was carried with the front-line troops. Thus, at the Isandhlwana disaster, such a quantity of supplies was with the destroyed regiment that the loss was temporarily crippling. Colonel Glyn's centre column was deprived of 132 waggons, 140 oxen, 1200 rifles, several hundred shells, 25,000 rounds of ammunition, and £60,000 worth of general supplies. As the compilers of the arid official record

43. Separation of forces, however, evoked no objection if it brought success. Maurice's scholarly mind was troubled by the fact that Wolseley won the Ashanti war with a three-pronged advance, and in a remarkably pedantic discussion at the Dublin military society endeavoured to show that this dispersion was more apparent than real. "Theory and Practice", (Dec. 1891), 20-22, Military Society of Ireland, publications no. 2. On Chelmsford's strategy also see Lieut.-Gen. Sir W.P. Butler, An Autobiography (Lond. 1913), 196-208; Lieut.-Col. G.A. Purse, Military Transport (Lond. 1892), 30-31.

44. Wolseley to Chelmsford, 20 June 1879, and 1 July 1879, Chelmsford Papers, file 19.

remarked, with a flicker of emotion:

This disaster also deprived the central column of the whole of its transport, and rendered the troops who composed it incapable of making any offensive movement. Officers and men found themselves on the 23rd January with nothing but what they stood in, for those who had marched out on the morning of the 22nd had gone in light marching order, and those who had escaped from the camp had saved nothing.46

The activities of No. 1 column under Colonel Pearson provide a similar instance of the defects of Chelmsford's organisation. In January the column marched north, brushed with some Zulus at Inyezane on the 22nd, and on the following day settled down at the mission station of Ekowe. Records of life there during the succeeding months make absorbing reading. Trenches were built, sanitation carefully arranged, games, swimming and sermons arranged daily in order to occupy the troops.47 Admirable though Pearson's measures were, it is hard to resist the conclusion that, until relieved in early April, a third of Chelmsford's invading forces devoted its energies to little besides keeping itself alive.

These remarks should be made, however, with an appreciation of the severe practical problems faced by imperial troops in South Africa. Authorities at home could show a very limited understanding of such


47. There is a considerable correspondence on these subjects between Chelmsford and Pearson, Chelmsford Papers, file 7.
difficulties. In principle, if not in the way Chelmsford introduced it, the column system was admirably suited to South African conditions. Isandhlwana mattered the less in that those who opposed the whole concept would have condemned it whatever the events. Thus, before the disaster, Stanley pedantically rebuked Chelmsford for departing from the commissariat regulations. Very reasonably, he replied:

... I may be permitted to express a hope that it will never be lost sight of at home ... that we are obliged to adopt systems simply based upon the requirements of the situation, rather than upon existent regulations laid down for the most part for operations in Europe of civilised countries.

From the first, Commissary-General Strickland viewed Chelmsford's transport system with disfavour. Submitting to it with an ill grace, Strickland made clear his expectation that, once commissariat reinforcements arrived, things would return to normal and his department resume executive control of transport. In part, Strickland was simply carrying on the old quarrel the supply department had with military men who arrogated to themselves commissariat powers. After the China war of 1860, for example, commissaries accused the Military Train of being either "ignorant of their duty or above doing it". Similar


resentment was displayed towards the naval officers who controlled part of the water transport during the New Zealand campaigns of 1863-66. Once supplies were in naval custody, one commissary asserted, no reliance could be placed upon their reaching their destination. Sailors "notoriously appropriated everything they could lay their hands upon, and were particularly partial to rum". Strickland, whose reputation was largely made in New Zealand, endorsed these sentiments. From the perspective of such officials, therefore, the Zulu war was but another stage in their struggle to maintain the integrity of their department.

Efforts made to garner sufficient transport for the campaign are an especially good example of the problems of conducting an imperial war from a colonial base. Few supplies for the Zulu campaign, like most late Victorian wars outside of India, came from local sources. Within Britain, regimental supplies were issued at district command level, by the senior Commissariat official. For an expedition, however, the whole process of contracting, storage, and sea-conveyance was the responsibility of the Director of Contracts and the Commissary-General of the Ordnance. No serious shortage of supplies, general or warlike, was experienced in the Zulu war. The real difficulty lay in their conveyance from base to front.


Colonists were an admirable source of manpower (for labour or fighting), but they had to be cajoled rather than exploited. Africans might be flogged for desertion or unofficially pressed into service, but colonist and Boer sensibilities demanded considerable respect. Indeed, for the white population of Natal and Cape Colony, the Zulu war was a superb financial windfall. Very properly, Chelmsford left the procurement of transport to his Commissary-General, but Strickland showed little anticipation of the transport requirements of the campaign. He was advancing in years and rigid in approach. In accordance with his New Zealand experiences, he assumed initially that all transport could be ox and waggon, obtained by purchase. As soon as the imperial authorities entered the market, prices soared. Before hostilities commenced, Strickland had attempted to solve this problem by requesting that transport officers and commissaries be permitted to impress waggons and oxen at the going market price. Both a transport committee hastily convened at the time and a more deliberate enquiry during the war found pressing to be illegal.

53. Lieut.-Col. C.E. Webber, *Report describing some of the Transport arrangements in Zululand and the Transvaal in 1872*, 16, 24, W.O. 33/36. Major D.B. Burn wrote typically in *Notes on Transport and Camel Corps (H.M.S.O. 1887)*, 21: "Flogging is sometimes necessary; fines are in many cases inadequate; the effect is not immediate as in the case of flogging, which natives understand, and know when to expect."


55. *South Africa (Financial Reports)*, 4-5, P.P. (1880), 51.


57. Ibid, 10-12; *South Africa (Financial Reports)*, 4-5. P.P. (1880), 51.
In any case, Strickland's demand showed a surprising disregard for colonial liberties.

Accordingly, although most of Pearson's column was equipped with bought transport, full-scale purchase soon became economically unfeasible. The next resort was to hiring, though purchases were still made for regimental transport. Hiring was supplemented by contracting local colonists to move stores as so much per ton per mile. This was conducted under no general authority. Both commissariat and army transport officers contracted, hired or bought from whatever local sources were available, each for the troops with whom he was associated. By early April a variegated series of civil contracts had been developed from base to front, directed by neither Strickland nor Chelmsford. Clifford was not yet appointed. For the first few months of the war, Commissariat officers were responsible only to headquarters at Pietermaritzburg, whence no effective control could be exerted. They were therefore practically independent, and spared no expense in securing freight livestock and vehicles. Only the custody of local drivers, under loose military supervision, protected the lines of communication. Although they were not immediately threatened, it became apparent by early 1879 that the whole system, or lack of one, was dangerously exposed and getting beyond military control.


59. Lieut.-Col. C.E. Webber, Report describing some of the Transport Arrangements in Zululand and the Transvaal in 1879, 26, W.O. 33/36.

60. Foregoing paragraph based upon ibid., 1-13; Butler, Report, op. cit., 5-6; Capt. Edward Spratt, Report on Arrangements made for Transport ..., (March 1880), W.O. 33/36.
Complete reliance upon oxen and waggons was no longer acceptable; the death-rate of animals had reached an appalling level. Major-General North Crealock's No. 1 Division on the coast was losing its oxen at the rate of some 400 a day by June. From May to August, the light grass crop (attributable to the drought of 1878) caused starvation amongst the oxen with the troops in Zululand. Charles Webber depicted the situation in a brief lapidary sketch: "The rivers were thickly sprinkled with their dead bodies; and here and there, over the plains, numbers of broken-down animals were wandering." Strickland, over-optimistic or perhaps assuming that no operations would take place in winter, had made no allowances for the depredations of disease and starvation upon his animals. Chelmsford would have done well to have followed Major Francis Clery's advice as to the need of appointing a controller of transport who

... should be something more than a mere superintendent of wagons - he should I think have such a knowledge and understanding of his General's plans as would always enable him to work his transport not only to just carry out what is required for this week, but also with anticipatory provision for what may possibly be required next week.

61. Wolseley to Stanley, 30 June 1879. Further Correspondence Respecting the Affairs of South Africa, 94. P.P. (C.2482, 1880), 50. On the 13 April the forces were reorganised as No. 1 Division, No. 2 Division (Maj.-Gen. Newdigate) and Brig.-Gen. Evelyn Wood's Flying Column. Narrative of the Field Operations Connected with the Zulu War of 1879, op. cit., 84.


63. Clery to Chelmsford, 24 Nov. 1878, Chelmsford Papers, file 5.
Gradually the entire organisation was rendered both less diffuse and more flexible. Though placed under no single directing head, military transport was established to complement the array of civilian vehicles and conductors. Mules, cheaper than oxen and more resistant to disease, were purchased locally and from South America, Kentucky, Missouri, France and Spain. With local carts or the much-favoured American waggon, these animals were arranged in sections, each consisting of twelve vehicles and 124 mules and under the command of a regular officer. Eventually, a train of twenty-one such units was formed. In Zululand, on the coast road from Fort Pearson to St. Paul's and Durnford, lines of communications were worked entirely by the mule train on the efficient section system, whereby each unit carried full waggons from post A in one day and brought back the empty ones from post B the next. These arrangements seem to have been eminently satisfactory. Some strain and expense probably would have been avoided if greater reliance had been placed upon mules from the first. Their inability to graze, however, obliged a mule train to carry its own forage, and this limited their value for long-distance movements.

After Ulundi, Wolseley organised a corps of Bantu and Zulu carriers in the Ashanti style, who formed a useful and highly mobile addition to animal transport in the occupied districts.

64. Lieut.-Col. G.A. Furse, Military Transport (Lond. 1882), 66; Narrative of the Field Operations Connected with the Zulu War, op. cit. 172.

In particular, they were cheap, costing the Government only rations and a daily shilling to each man, plus an initial pair of trousers (which the Zulus preferred to wear as comforters round the throat).  

The most significant innovation introduced after the arrival of reinforcements was the proper staff organisation of communications. This measure bore the Wolseley touch. Arriving at Durban on 28 June, Sir Garnet instituted a policy of economy, delegation, and unified military control of communications. Clifford's ambiguous position was immediately clarified:

The divided control of the lines of communication ordered by Lord Chelmsford being, in my opinion, fatal to a proper conduct of operations, I at once issued orders placing Major-General Clifford in communications from all the columns operating in Zululand to the base ...  

Seven staff officers, all bearing the title of Assistant or Deputy Assistant Adjutant and Quartermaster-General, were posted along the communications. To them commissaries were made responsible and no longer permitted to correspond directly with headquarters. Chelmsford, of whose plans Clifford was in "absolute ignorance", Wolseley reported, was momentarily beyond his superior's reach and determined to end his unhappy command with a stylish victory. On the coast, Crealock had been conducting an independent campaign for some six weeks. To draw him into the general scheme of operations and to

reduce his cumbersome waggon train (which included some 3,500 oxen), Wolseley began to build up the carrier corps and to develop the intermediate base at Port Durnford. 68

This access of efficiency underwent no prolonged test. Upon the ruin of Zulu power at Ulundi (4 July), Wolseley began to dismiss superfluous native and colonial volunteer corps. Pressure upon transport facilities declined drastically, and the existing infrastructure was more than sufficient to permit the pacification of Zululand and the defeat of the Basuto chief Sekukuni.

A general assessment of army services in the Zulu war is not easily made. Every allowance should be made for the constraints under which the men in the theatre of war were acting. In no respect were these operations an absolute failure. Strategy and tactics cannot be considered here, but the Zulu power was shatteringly broken. The commissariat and transport system was, in the broadest sense, successful. After the arrival of reinforcements, some 15,000 imperial troops and as many again of colonial and native were supplied along three hundred miles of waggon tracks by animal transport, in a country afflicted by drought, rinderpest, and tsetse fly. Almost never were rations not forthcoming, or medical services unavailable. This was achieved, however, at a formidable cost, and the commissaries, especially Strickland, were widely condemned for reckless extravagance. 69 The occasional instance of a patently inefficient use of imperial funds can be found. Each mule section, for example, was commanded by an officer who qualified for staff pay and allowances,

68. Ibid, 94-95.

whereas an N.C.O. could easily have taken his post. This, however, was hardly a commissariat affair. There is little evidence to suggest that supply officers were clearly inefficient in the day-to-day running of business.

Rather, the matter of expense should be related to the basic fashion in which the campaign was conducted. What effect a greater use of railway and alternative animal transport would have had upon expenditure must remain speculative. But it is plain that Strickland's reliance upon colonial transport was akin to Chelmsford's massive recruitment, at inordinate rates, of white volunteers. At a time when the basic rate for a private was a shilling a day exclusive of stoppages, South African volunteers could expect twelve shillings per day plus rations and forage. 70 Again, whether or not these troops were necessary depends upon one's assessment of the conduct of operations, and Chelmsford would doubtless have preferred regular troops in the volunteers' place. Indeed, he emphasized to Stanley "that the cheapest force in South Africa is, without doubt, a British regiment". 71

But no allowances were made by the reformers associated with Wolseley. To them, the Zulu war was an object lesson in strategic and administrative incompetence. In retrospect, Sir William Butler saw the campaign as an undress rehearsal for the South African war of 1899-1902. 72 George Furse, the army's chief publicist on supply and transport, regarded Chelmsford as ignorant of what the organisation


72. An Autobiography (Lond. 1913), 211.
of communications entailed. Evelyn Wood harshly criticised Strickland's conduct of affairs in correspondence with Chelmsford himself, and expressed a preference for "British gentlemen for transport and for all other army duties". Excepting Buller, Clifford, and Wood, Wolseley held all the commanders of Chelmsford's campaign in contempt. His plans, Wolseley wrote with his usual acerbity, were "commenced in madness and carried out in folly", and he himself had "no finesse for war or warlike combinations ... no idea of economy in public matters". Wolseley advised Stanley to "discharge your Commissariat officers in a block", and did not hesitate to write likewise to the Duke of Cambridge. "That blathering ass Mr. Strickland" aroused Wolseley's especial animosity, to whom he exemplified the class whose power in military matters had to be broken. The Commissary-General whom Wolseley had met in Cyprus, one Downes, had evoked a similar response: "an ass with the airs of a race-horse". Thus, the cessation of hostilities in Zululand only gave verve to the battle at home over the standing of the Commissariat.

Certain obvious differences from the Zulu war are displayed in the Egyptian expedition. Local sources of supplies and transport were exploited only to a very limited extent. Almost everything, including

73. Military Transport (Lond. 1882), 31, and The Organization and Administration of the Lines of Communication in War (Lond. 1894), 346.
74. Wood to Chelmsford, 18 April 1879, Chelmsford Papers, file 9.
75. Wolseley to Stanley, 4 and 18 July 1879 (for first and third quos.), Wolseley to Cambridge, 11 July 1879, Wolseley Papers, SA 2, 18, 19, 27, 35, 38-39; South African Journal, 1879-80, entry 27 July 1879 (for reference to Strickland), W.O. 147/7; Cyprus Journal 1878, entry 27 July 1878 (for reference to Downes), W.O. 147/6.
trucks and locomotives, was sent to the theatre of war. Communications were intrinsically more sophisticated. Railway, canal and steamships were their primary elements, and animal transport was supplementary. An armoured train was used for the first time in British warfare. 76 A cursory survey of the two wars suggests a complete contrast between them, and this was indeed part of their contemporary reputation. The one was marred by the Isandhlwana and Inhlobana disasters, was drawn out for eight months and cost four million pounds and 1,153 British deaths in action. The other was immediately successful, lasted six weeks, cost substantially less, and caused eighty-one British deaths in action. 77 Butler's assessment of the Egyptian war may be compared with his judgment upon the Zulu campaign:

... whatever opinion history may arrive at, when with clearer vision and more dispassionate judgment she reviews the Egyptian campaign of 1882, the need of exact calculation of the means to the end, of conciseness, thoroughness, and economy in life, and in expenditure and finally, of great unity in operations, will scarcely be withheld from the verdict of the future. 78

As one would expect, closer inspection reveals a good many flaws


77. South African campaigns (Casualties) P.P. (1880), 42. Cost of army services in the Egyptian war was £1,640,000; navy services, £1,776,000; cost to the Indian exchequer, £1,142,000. Some 35,000 imperial forces sent to Egypt, as opposed to 15,000 to South Africa. Treasury minute of 17 Feb. 1883. P.P. (1883), 38. For Egyptian casualties, see Col. J.F. Maurice, Military History of the Campaign of 1882 in Egypt (H.M.S.O. 1887), appendix 7. Henceforth cited as Maurice, Campaign of 1882. M.J. Williams, "The Egyptian Campaign of 1882", in Brian Bond (ed.), Victorian Military Campaigns (Lond. 1967), provides a good short narrative of the expedition.

in Wolseley's operations. Maurice did not dwell upon these shortcomings in his superb official narrative. A close friend and disciple of Wolseley, he was to some extent a "court historian", as Professor Luvaas has written. The following pages consider these defects within the general context of Victorian warfare, and seek to assess the degree to which they undermine the reputation of the Egyptian war as a model campaign.

Within the confines of cabinet policy, Wolseley's strategy was dictated by the time and lines of communication available. His instructions were to break the military power of Colonel Ahmed Arabi and his fellow rebels in order to restore the Khedive Ismail's rule in lower Egypt. "Gladstone's bondage in Egypt", in Professors Robinson and Gallagher's famous phrase, developed under the pressure of local and international circumstances, and the question of occupation initially was beyond Wolseley's concern. His aim was a swift, decisive campaign and a rapid withdrawal. A series of minor successes would have complicated the situation by driving Arabi back upon the cultivated land west of Tel-el-Kebir. From the personal point of view, too, Wolseley had more reasons than most Victorian generals to achieve immediate victory; as he remarked to his wife: "If I had in any one instance made a mess such as Chelmsford made


80. Ronald Robinson and John Gallagher, with Alice Denny, Africa and the Victorians (Lond. 1961), chs. 4 and 5.
repeatedly in South Africa, how all that loathsome crew at the Horse Gds. would have jumped and trampled on me ...". Sound logistics pointed to the canal and railway leading from Ismailia as the only desirable route to Tel-el-Kebir. Thence to Ismailia was only fifty-five miles, whereas it was twice as far to Alexandria. Inland water transport, the potential of which had been demonstrated in the third New Zealand war, was a great attraction of both routes, but whereas the fringes of the Nile were heavily cultivated and patterned with irrigation, the canal was bordered by hard desert terrain, ideal for marching and the passage of artillery and cavalry. Unfortunately, the canal, misnamed the Sweetwater or Freshwater, was foul in the extreme. "An open sewer is a polite description of it", one officer wrote. Ismailia was a good potential base, with landing places which could be augmented by portable stages, an ample water supply, and open to supplies from Suez or Port Said via the Maritime canal. Inland, the pre-existence of a railway from Ismailia to Cairo rendered overwhelming the desirability of the shorter route. But this dictated speed. Delay would mean disaster, because as soon as Wolseley revealed on 19 August that he was to advance from Ismailia rather than Alexandria, the enemy began to obstruct the canal in order to cut off the water supply. Condensers

81. Wolseley to Lady Wolseley, 5 March 1890, Wolseley Papers, W/P 9. For Wolseley's official instructions, see Hugh Childers (secretary of state for war) to Wolseley, 4 Aug. 1882. Correspondence Respecting the Affairs of Egypt, 295-96. P.P. (C.3531, 1882), 83.

and storage tanks were rapidly erected at Ismailia in late August, but without the canal they were useless. To ensure his water-supply, to secure the life-line of his army, Wolseley was therefore obliged to contemplate advancing as far as Kassassin in a matter of days.

Thus, an astonishing burst of activity along the lines of communications followed the seizure of Port Said on the 20 August. Make-shift arrangements occurred everywhere, but a measure of coordination existed which had been lacking in the Zulu war. Wolseley's reliance upon handpicked men provided a substitute for a general staff which was reasonably effective in the small war. Distinct from the chief of staff, General Sir John Adye, and his immediate subordinates, Major-General William Earle was placed in command of the lines of communication and base. Under his orders were five staff officers, Commissariat officers of both Indian and British forces, and two Directors of Transport. Furthermore, Earle commanded the Telegraph Company and, from 31 August, the Railway Company. Paper organisation did not, of course, necessarily entail efficiency in practice. Nonetheless, this was a significant recognition of the need to have a single directing authority over communications. The principle had been embodied in regulations issued just prior to the war, which stated that "everything on the lines of communication will be placed under the command of an officer of high rank, usually a general officer ...". Not all responsibilities were clearly defined;


upon his appointment as Commissary-General, Egypt, Sir Edward Norris requested the War Office to specify his duties. As he remarked ironically to the Commissariat enquiry of 1884, he was still awaiting a reply. 85

Procurement of supplies was no problem in a general sense for the men in the theatre of war. The difficulty lay in their conveyance to the front. It had been assumed that no supplies could be gathered from local sources, and accordingly not a single Commissariat officer was dispatched on forage duties throughout the war. 86 As Surveyor-General of the Ordnance, Sir John Adye began to organise the conveyance of stores in early July. 87 The importance of speed enforced tremendous pressure upon the landing facilities at Ismailia. During August, some 9,200 infantry, 2,600 cavalry, 2,500 artillery with 60 guns, 860 engineers, and 4,000 horses, all with accompanying munitions and supplies, were landed at the single wharf. 88 Certain dislocations, therefore, were unavoidable. There was a general lag between the landing of troops and the arrival of general transport. 89 During the passage from Alexandria to Ismailia, the Highland brigade of the Second Division was separated from its regimental transport. In the

85. Ibid, 4.

86. George Lawson, Assistant Director of Supplies and Transport, Memorandum on the Supply and Transport Arrangements in the Egyptian Campaign (May 1884); ibid, 679.

87. Ibid, 132; Arthur Haliburton, Memorandum on the Administration of Supply and Transport Services ... (April 1884), 4, outlined the current procedures upon declaration of war, W.O. 33/42.


89. Report of the Select Committee on Commissariat Services, op. cit., 24 (Sir Edward Norris).
press of disembarkation, the brigade and its transport were never re-assembled, and the Highlanders fell back upon the overworked Commissariat and Transport corps for animals and carts until Zagazig was reached on 15 September. For the closing days of the campaign, the distinction between general and regimental transport was suspended, and the brigade marched as one column to Cairo.\textsuperscript{90} This episode, however, should be seen in the light of the fact that this was the first expedition to leave Britain fully equipped with regimental transport.\textsuperscript{91}

Railway operations during this war provide a rather good example of what was so often the style of Victorian campaigning; ingenuity and intelligent makeshifts developing a service adequate to momentary needs but amateur (especially in this instance), compared with similar organisations abroad. While the Indian army had maintained a railway department from the 1860s, no such body existed in Britain. Probably because it was less difficult to equip and maintain, a permanent telegraph corps had been established at home in 1869.\textsuperscript{92} This contributed to the fact that while telegraphy in the Egyptian campaign gave general satisfaction, the railway system was much criticized. On the 6 July the Royal Engineers were ordered to form a military railway corps. This was hastily gathered together as the 8th (Railway) R.E. Company, most of whom had no experience with locomotives. After eight days training on the London–Dover line, and some opportunity to witness platelaying by the South-Eastern, London, and South-Western Railway companies (all by courtesy of civilian managers), they were sent to the front, arriving


\textsuperscript{91} Memo. by Haliburton, \textit{op. cit.}, 6.

at Ismailia shortly before the first locomotive was erected (26 August). Initially, the work threatened to overwhelm them, as until the beginning of September only one engine was in operation. By the 6 September, the landing of two locomotives bought in Alexandria and four from Britain permitted the running of up to five trains daily to the front.

The haste with which the railway transport was arranged did produce some minor complications. Although a single line ran from the coast to Zagazig, and a double one thence to Cairo, it was necessary to construct a small railroad between the wharf and Ismailia station. Laid under Royal Engineer supervision, the rails were so lightly bedded that they could not carry the engines. To drag the laden trucks over the mile-long stretch from waterfront to station, recourse had to be made to horses and mules. A brief delay was caused in the last days of August when a boiler was damaged and the Engineers had to find civilian assistance for the repairs.93 Such technical hitches were the result of inexperience, and considering how unpractised the 8th Company were in railway work, it is remarkable that no worse accidents occurred than the derailing of a few trucks.94 Nonetheless, the military management of the line brought severe censure from the commissaries, although specific instances of incompetence are hard to find. Sir Edward Norris stated that little reliance could be placed upon the delivery of particular goods to particular places. According to Edward Sander, senior Commissariat officer with the First Division, the railway system had "no management about it". Nevertheless, he conceded that his


94. Wallace "Report", op. cit., appendix 2 (details of all accidents, of which there were eighteen).
division did not go a single day without rations, though they often arrived late with certain items in short supply. Discomforts rather than privations were the lot of advanced troops for the first few days of the campaign, as this passage from the diary of a disgruntled officer suggests:

Kassassin, September 3rd - The same old song, waiting for supplies! Half-rations for man and beast, bad water, and canal falling ... You would smile if you saw us tucking into soup and biscuits, neither very good by themselves, but very nasty when messed up together and eaten in a most promiscuous manner. A sort of stew for breakfast, tea or cocoa for lunch with some biscuit, and then tea or coffee for dinner, with a fresh stew made from meat or any food we can raise.

Canal transport, consisting of barges towed by steam pinnaces, was organised by the navy with relative ease. These mainstays of conveyance, railway and canal, were supplemented by the regimental and Commissariat animals, carts, and waggons. It was with these that the so-called breakdown of transport occurred. On the 24 August, troops advancing from the base were issued with two days' rations. Their carts, chiefly General Service waggons, proved too few for the stores and too slow for the troops. During the next few days, tons of supplies were abandoned and waggons, overturned, or bogged in loose

sand, or with broken axletrees, were strewn alongside the canal from Ismailia to Kassassin. That is not to imply that the regimental transport did not convey the bulk of the stores entrusted to it, but the losses in rations were substantial. These had to be replenished by order of the commissaries, who were thereby obliged to mortgage upon their general supplies. Over-reliance upon the General Service waggon, suitable only for conventional roads, was part of the problem. Universally condemned after the Zulu war, it was still the standard vehicle for use under all conditions. As Lieutenant-Colonel Charles Webber remarked sardonically, attention should have been paid "to the experience of wars during which we have used every kind of vehicle except those made at Woolwich." Furthermore, as no permanent regimental transport existed in Britain, officers and men were generally inexperienced in the management of baggage animals and vehicles. This point was much discussed after the war.

The overriding feature of the Egyptian expedition was its rapidity, and this helps to set in perspective its opening difficulties. It was authorised on 21 July, forty days later ten thousand men with their attendant services were at Ismailia, and fifteen days later Cairo was in British hands. General disembarkation was completed by the end of August, from the 6 September four or five trains ran daily to the front, and the victory of Tel-el-Kebir on the 13th permitted the capture of

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98. Report by Deputy-Assistant Commissary Baker, 1st Brigade, 1st Division, 21, W.O. 33/42; Report of the Select Committee on Commissariat Services, op. cit., 1-17 (Morris), 105 (Saunders); Maurice, Campaign of 1882, 56.

enemy stores, water supply, and rolling stock, and put an end to supply shortages. Initial problems were a matter of days. Inadequacy of regiments transport was a limited breakdown of a secondary adjunct to the main lines of communication, whose exploitation by Wolseley was masterly. The achievement of the Railway Company was remarkable. In less than seven weeks, Major William Wallace, the only railway expert available, had to constitute, train, disembark (twice) his corps of amateurs, supervise the construction of locomotives, the arrangement of timetables, the building of two short lines (from Ismailia station to the wharf and to the canal), and the transportation of some 9,000 tons of stores to the front. This he did without any breakdown or serious accident; the explosion and fire at Cairo on the 28 September occurred after the railway had been handed over to the Egyptian government. Wallace's performance was typical of the campaign. At any stage things could have miscarried; if the first locomotive had seriously broken down, for instance, or if the enemy had stood against Lieutenant-General Sir Gerald Graham at Kassassin or cut off the water-supply. But Wolseley was taking a calculated, legitimate risk, similar to that of his night march and dawn attack at Tel-el-Kebir. After every qualification has been made, it appears difficult to deny that this expedition was a model of what could be achieved in colonial warfare.

Yet, basically, this and the Zulu war were two of a kind. As in almost all expeditions between the Crimea and the South African war, the home machinery proved capable of dispatching with reasonable efficiency ample supplies to the base of operations. But in the actual theatre of war, we see organisations created for the moment, and deficiencies of the home contingents rectified by a variety of external aid. As in the Suakin expedition, equipment for boiling
and filtering impure water came from the navy. When some pipes in his Alexandrian engines proved inadequate, Wallace procured replacements from the same source. His own expertise had been developed solely within India, where he had belonged since 1867 to the Indian Railway department. Finally, both the Egyptian and Zulu wars were campaigns against space and time more than against man.

Despite its successes, the shortcomings of the Egyptian expedition gave rise to much discussion and fuelled afresh the debate over Commissariat and transport organisation. With this controversy the ensuing pages are concerned. Whatever their educational defects, Victorian officers showed little distaste for argument, and questions of supply and transport generated a good deal of it. As one lecturer enthusiastically if perhaps inaccurately remarked: "... we see the congenial subjects of Strategy and Tactics giving place to the eminently prosaic but more important point, "How masses of men on the move are to be supplied with the numerous articles necessary for a modern army in the field?"" Although the extent of Commissariat powers had been an important issue for many years, it is justifiable to pick up the story after the Zulu war, for it is about this time that the concept plainly emerged of an overall military control of communications. Amongst those who spoke and wrote on this subject three fairly distinct

100. Lt.-Gen. Sir Gerald Graham to General Lord Wolseley, 30 May 1885, appendix 2, W.O. 32/6129; Maurice, Campaign of 1882, 57.

approaches can be discerned, although it is not asserted that hard and fast divisions of opinion existed.

The first approach was military and traditional. Its proponents were content to uphold the time-honoured procedure of allowing soldiers a limited and variable responsibility for transport in wartime, entrusting the Commissariat with independent control of supply, and maintaining no nucleus of regimental transport in time of peace. Little attention was paid to the line of communications as a whole. A lengthy memorandum by Sir John Adye on the 1882 campaign exemplified this conservative and rather complacent outlook; an irenic stance amongst the sharp disputes of commissaries and reformers. Adye's own career illustrates how Victorian officers could be conservative on some issues and progressive on others. As a scientist and artillerist he was one of the most distinguished soldiers of the period, and played the major part in the reestablishment of a standing committee to examine new advances in gunnery; the Ordnance committee. Yet he was a leading proponent and supervisor of the reversion to muzzle-loading artillery in the 1860s, a change which Wolseley considered to have been an unmitigated misfortune. Upon the question at hand Adye was distinctly backward-looking.


103. Brig.-Gen. John Adye, Director of Artillery, "Memorandum on the Breech-Loading System of Field Artillery", (April 1870), W.O. 33/21A; Reptrt of the Royal Commission Appointed to Inquire into the System under which Patterns of Warlike Stores are Adopted, 104 (Wolseley), 186-87 (Adye) P.P. (C.5062, 1887), 15; Gen. Sir John Adye, Recollections of a Military Life (Lond. 1895), 284-87.
In his memorandum, he commenced by arguing that Commissariat and transport arrangements in peace and at home had been developed upon the assumption of European conditions. He saw no cause for complaint in this. To his mind, the diverse circumstances if Britain's small wars simply should be met as they arose. Thus, testifying before the 1884 Commissariat enquiry, he adamantly opposed the maintenance of permanent regimental transport, as a nucleus for one army corps, as uneconomical and superfluous. To him, the Egyptian campaign confirmed the satisfactory nature of the existing system. Plainly, he had little sympathy with those commissaries who harped upon the defects of military transport in the expedition. Indeed, his remarks, tinged with contempt towards the civilian corps, were reminiscent of the attitude of the Military Train. As Commissary-General Henry Reeves complained:

We are liable to be accosted and spoken to by officers in a very different tone and spirit to that used in dealing with officers of our relative army rank. Having to deal with a great number of officers of other corps I particularly remarked this.

Similarly, nearly two decades later, staff surveyors protested that, although they possessed relative rank, their lack of formal military titles "subjects them to grave annoyance, and even indignity; and that this reacts most detrimentally upon their social position".

104. Report of the Select Committee upon Commissariat Services, op. cit., 158.

105. Report by Assistant Commissary-General Henry Reeves, Director of Transport, (Nov. 1882), 20, W.O. 33/42.

106. Committee on Surveyors of the Staff for Engineer Services (1899), 4, W.O. 33/145.
Adye's serious contention, however, was that the commissaries were so absorbed in their departmental concerns that they had no appreciation of the strategy of the campaign. They failed to see that the initial deprivations undergone by the troops were a necessary consequence of Wolseley's strategy of surprise and the need to secure the railway and water-supply. Their outcry over the breakdown of regimental transport was a similar case of not seeing the wood for the trees. (Undoubtedly it also reflected antagonism with a fresh encroachment upon Commissariat functions, in that brigades left Britain with their regimental transport complete, rather than receiving it from the commissaries at the front.) Airial transport, Adye stressed, was only supplementary to railway and canal and, as supplies at the base were plentiful, a certain amount of wastage was permissible and amply redeemed by success. Clearly, Adye glossed over the imperfections of the campaign, and viewed the British style of ad hoc preparations with a complacency bordering upon affection. Nonetheless, he had an overall grasp of the campaign not evident in the remarks and writings of most Commissariat officers. In short, Adye felt that, smarting under the restriction of their powers by Earle's appointment, the Commissariat was exaggerating the defects of the campaign in order to advance its departmental interests. On the strategical side of the question, similar opinions were advanced by Sir Arthur Haliburton, Director of Supplies and Transport, but he seems to have remained aloof from the conflict between soldiers and commissaries.

107. Lieut.-Gen. Sir John Adye, Memorandum on the Commissariat and Transport Arrangements in Egypt during the War in 1882, (May 1882), preserved in corrected proof amongst the Wolseley Papers. With its more acerbic expressions removed, the memorandum was laid before the Commissariat enquiry. Also see Adye's evidence: Report of the Select Committee on Commissariat Services, op. cit., 131-37, 154-58.

108. Memorandum on the Administration of Supply and Transport Services ... (April 1884), 5-6, W.O. 33/42.
Apart from its view on regimental transport, an important R.U.S.I. lecture by Lieutenant-Colonel Charles Shervinton bears distinct similarity to Adye's approach. In 1881 Shervinton was a Deputy Commissary-General, but he was one of the few in his corps of military origin, having formerly been captain and then brigade-major in the Military Train. 109 The disparity between his views and those of most of his colleagues is therefore explicable. In his lecture, he surveyed the fortunes of army transport from the Peninsula war onwards, applauding those commanders who had placed it under military direction. The Strathnairn committee of 1867 had recommended the formation of a permanent nucleus of regimental transport, but this suggestion had not been put into effect. Shervinton blamed this upon the alleged self-assertion of Commissariat officials during the Strathnairn enquiry, whereby they had successfully defended their sectional interests. Thus, Shervinton concluded, the Commissariat "still retains army transport in its grasp ...". 110 But besides sharp and even bitter comments upon departmental officers, Shervinton did not have a great deal to offer. He showed no concern with the lines of communication as a whole, and, arguing only for the revival of the Train as an independent body, rejected the principle of an Army Service corps. 111 Reconstitution of the Military Train would be a sufficient reform and would serve to limit Commissariat pretentions. Bearing in mind Shervinton's former position and the fact that he was on half-pay, there were perhaps some personal expectations behind his lecture.


In both public and confidential discussions, the Commissariat defended its interests with vigour. Some commissaries expressed opinions which aligned them with the reformers, but most obviously felt threatened by the expansion of military control, and banded together to preserve their departmental powers. Their limited numbers helped to cement their cohesion. Including the Ordnance Store department, the Commissariat establishment never rose much above three hundred from the abolition of Control until the creation of the Army Service Corps. Against Wolseley and his supporters supply officers seem to have felt a special animus, as they did against the Royal Warrant of 1880. Much of what they insisted upon was valid; the intimate connection between supply and transport, and the undesirability of five-year rather than permanent appointments in army services. But their reluctance to contemplate any organisation other than a Commissariat responsible only to the G.O.C., and in full control of peace and wartime transport, made their position anachronistic.

Thus, at a significant R.U.S.I. debate shortly after the Zulu war, Edward de Fonblanque, an aged authority on Commissariat affairs, urged that transport be committed once and for all to the supply department, and lamented that in South Africa "... we have reverted to the old system of divided responsibility and decentralization". Sir Edward Strickland, who had been awarded a K.C.B. for his South African achievement, spoke at length to the same effect, with an assertion he had not fulfilled in 1879: "I would not myself take the Commissariat charge of any troops in the field if there was any

112. "Statement showing the cost of Supply Officers of the Army from the 1st April, 1868", W.O. 32/6072.
attempt whatever to take from me the thorough command of my transport".\textsuperscript{113} 

In the following year, commenting upon Shervinton's lecture, Ponbianque criticized the speaker for repudiating "the principle which I thought that all experienced officers, both military and departmental, have acknowledged to be quite unassailable, namely, that you cannot separate Transport from Supply". Other commissaries rallied to Ponbianque's support on this and related issues. It is clear that they were not opposed to the recent measures to give the corps a military standing, which they rather welcomed as enhancing their prestige. What they condemned were threats to their department's integrity; the five-year rule and the proposal to separate transport from supply.\textsuperscript{114}

The Egyptian campaign and the Nile expedition of 1884-85 gave additional grounds for dispute. In the latter campaign, Lieutenant-Colonel George Purse was appointed Director of Transport. His position gave him supreme authority over the variegated modes of conveyance used in the war; mules, horses, donkeys, camels, Canadian whalers, steamers, and railways. To him, at least on paper, Commissariat officers were directly responsible and were required to request from him their allotment of transport. The controversy aroused by this arrangement will be discussed shortly.


In evidence before the 1884 Commissariat enquiry, supply officers variously blamed the defects of the Egyptian expedition upon the re-organisation of 1880, the removal of regimental transport from their department's control, and the failure to train commissaries at home in transport duties. Viewing things from War Office level, Commissary-General Watt even condemned the principle of separating command from administration. Amidst his uncertain tenses, he clearly implied that the supply services had skirted disaster in 1882:

... the Egyptian war brought out more strongly than before that the separation of the command of the personnel from the administration of supplies was, and is, fatal to the efficiency of the Commissariat of the Army whenever any campaign on a larger scale be undertaken.

With this, Sir Edward Morris, senior Commissariat officer on the staff during the 1882 campaign, heartily concurred. "We have struggled", he wrote in a diatribe against the recruitment of regular officers into the corps, "through the campaign in which the efforts of the few efficient officers have been almost crushed by the ignorance of the untrained assistants". Immediately after the Egyptian war, a committee under Watt examined the question of whether the animals purchased for the campaign could be used to set up a permanent nucleus of regimental transport in Britain. Predictably, the committee


judged it unnecessary to maintain any transport corps outside of the Commissariat. 118

After the Nile campaign, Colonel E. Hughes, a senior Commissary with Wolseley's force, argued with obvious satisfaction that the appointment of Purse as Transport Director had proved wholly superfluous. Apparently Purse had controlled only the transport of the station at which he was at any particular time. Elsewhere, orders as to conveyance came to the local senior commissary, via the station commander, from the Chief of Staff and the G.O.C., Lines of Communication. Other reports confirm that all along the communications supply officers were actively engaged in what was theoretically the Director of Transport's province. 119 To the commissaries, this disparity between real and paper organisation showed that it was impossible to delegate supply and transport to different authorities, when both were under a supreme head of communications. In self-defence, Purse argued that the extraordinary length of communications had rendered it desirable to allow commanders and their senior commissaries as much latitude as possible. Furthermore, he accused the supply officers of obdurate uncooperation. His remarks reveal the residue of professional antagonism which still remained between soldiers and the formerly civilian supply department:

The assistance rendered to the supply branch at Korti finds not a single word of recognition in these reports. During

118. Committee on Transport Animals, (Dec. 1882), W.O. 33/40.

the whole time I was at that place I never received a single requisition for transport from a Commissariat Officer. On the contrary I, the head of a service, had to go from day to day to the Commissariat Store to state the number of camels that I had available, and to demand the loads that the Commissariat desired to have forwarded. It cannot be adduced in one instance that I ever objected to help the Supply Officers, as their brother Officers did, though they tacitly scorned to ask for such help from an outsider. 120

The reformers in supply and transport questions, amongst whom Purse was Wolseley's right-hand man in the field and with his pen, formed an identifiable group. The issue was not merely, they recognized, how far the army was to participate in the traditional functions of the Commissariat. They saw the need for a wholly military corps to discharge all supply duties in the field, and for a system flexible enough for the great range of conditions in which the British army had to move and be fed. It took some time for this concept to emerge fully, and initially the reformers tended to be much preoccupied with the question of independent army transport. The title changes of Purse's successive studies of what remained basically the same subject indicate the shift in perspective. 121

Purse therefore welcomed the idea of a single head of communications as the best way to unravel the "knotty point" as to how far

120. "Remarks by the Director of Transport on the Commissariat Officers' Reports", (Jan. 1886), 173-78 (quotation 177), W.O. 33/44.

121. Studies on Military Transport (Lond. 1878); Military Transport (Lond. 1882); The Lines of Communications (Lond. 1883); The Organization and Administration of the Lines of Communications in War (Lond. 1894) (Dedicated to Lord Wolseley).
Commissariat powers should extend in wartime. Acceptance of this principle, he felt, had rendered the supply officers' insistence upon control of transport irrelevant and out of date. After Shervinton's lecture, Wolseley spoke at length to similar effect. He emphasised three points: that a permanent nucleus of transport should exist at home, that transport and supply should be kept as distinct as practicable in war, and that all communications must be put under one controlling head. Having rather the best of both worlds, he added:

My own idea is, although I am not at all in favour of copying foreign systems, rather to copy the system of the Prussian service ... I have no hesitation in saying the man who should be held responsible for feeding an army in front should be the Officer in charge and in command of the line of communications, as it is in Prussia and in nearly all the great armies of the world, and that it is only possible in that way to get over the friction which will always exist between the various Departments of the army.

Wolseley put the last principle into effect during his two Egyptian campaigns. Over the question of regimental transport, a matter he pursued energetically until 1888, he was less successful. The issue is worth some attention as an example of the attitude Wolseley and like-minded reformers adopted towards the continent. Shortly before the Nile expedition, Wolseley discussed the matter in a long letter to Lord Hartington (secretary of state for war

122. Précis of Opinions on the Question of the Union or Disassociation of the Transport and Supply Services, (March 1884), 7, 17, 18, W.O. 33/42.

December 1882–June 1885). Hartington had evidently opposed the formation of regimental transport on the grounds that it existed in no European country. Wolseley's reply indicates the nice balance of interest in, and detachment from, foreign examples which imperial reformers sought to achieve. Relying upon Purse as an authority, Wolseley pointed out that some form of regimental transport was maintained in Russia, Italy, France, Austria, and Germany. But, with reference to Hartington's argument, Wolseley added:

I don't think that would have been any conclusive reason, even supposing your informant had been at all correct in his statements - why Regimental transport should not be provided for during peace in our little army, so different as it is from the European armies in its size, organization, and the duties it has to perform in peace and the nature of the wars it is designed to take part in.

In France, however, regimental drivers were trained by the supply department. An informal War Office committee was currently investigating the possibility of introducing a similar system into Britain, in the form of a transport school under Commissariat authority. The two supply officers in the committee approved of the idea, and were supported byHaliburton and Morris. The military members opposed it. Wolseley took their part:


125. There was, admittedly, some controversy as to the precise degree of independence given to the various foreign transports. Wolseley to Hartington, 19 Aug. 1883; Henry Brand to Hartington, 21 Aug. 1883, Devonshire Papers, 340/1376 and 1377.
On one side soldiers of varied experience in war all over our scattered Empire and men who have made Transport a most important item in the study of their profession, whilst on the other you have two Departmental officers entirely ignorant ... of the science and practice of war. 126

Wolseley continued to urge the formation of regimental transport until, with the creation of the Army Service Corps, a system of transport training for the combatant branches was established. 127 This was preceded by the issue of the first Manual for Regimental Transport in 1887.

The debate following the Egyptian war of 1882 did much to clarify the issues. An R.U.S.I. lecture of 1883 by Lieutenant-Colonel Charles Webber, who was the army's current expert on telegraphy and had worked closely with Wallace in the Egyptian campaign, typifies reforming opinion by the early 1880s. Webber enthusiastically supported the principle of one authority over communications. In this, he saw a "resurrection of the spirit of Control", but limited to wartime only. Thereby the combination of staff and executive functions in one man (the Commissary-General) would be ended, and specialised functions could be developed. "If anything has at last become a matter past discussion", Webber concluded, "it is, I believe, that the regimental, medical, and ammunition transport should not in future be a Commissariat organization in the British Army". 128

126. Wolseley to Hartington, 16 Aug. 1883. I know of this committee only from Wolseley's letter; no record of it seems to be preserved in the War Office Files.

127. "Volunteer Regimental Transport", (m.s. memorandum, March 1886); minute on the state of the army, 15 Sept. 1886; Wolseley Papers, W/NEM 1.

Thus, when Wolseley proposed the appointment of a Quartermaster-General over all transport and supply services, he found a favourable response from reformers. Wolseley's aim was, in effect, to establish a permanent domestic counterpart to the generals who would direct communications in theatres of war. From Commissary-General Sir Edward Morris, however, his suggestion met with a categorical rejection. Morris took issue with Wolseley on several grounds, and his remarks reflect the way in which the paths of reform in this period were complicated by differing assumptions as to the army's role. Such a Q.M.G., Morris insisted, would lack the relevant specialised experience. He pointed out that in the German etappen, a supply officer at headquarters directed the provision of food supplies under the immediate authority of the G.O.C. This regulation, according to Morris, was based upon the need for expert guidance in that planned exploitation of resources in the invaded (and civilised) territory. British supply organisation should be based upon precisely the same principle. Morris therefore maintained that preoccupation with warfare in "barren lands against savages" had clouded the minds of Lord Wolseley and those who supported him, and wrote:

"The primary object for which (the British Army) is equipped, organized and kept up, is to operate in civilized countries against the armies of civilized nations. Whatever may have been the employment of our forces during the past ten years, it is but reasonable to assume that the regulations for the Army should be prepared on a basis calculated to meet the requirements of civilized nations."
To Morris, therefore, commissaries had to be ready to fulfill their traditional role as those who commandeered as well as distributed supplies. What he wanted was a supply department with as much power as possible in war, and a head at the right hand of the commander-in-chief with no intermediate authorities. 129

George Purse, however, was delighted with Wolseley's proposal. He saw it as the chance to give supply and transport administration a proper military standing. Morris's objections, he argued, were a typical commissary's mistrust of delegated authority, and in any case were based upon a false premise:

... all we have to copy from the German Army is the working out of a proper system for the Line of Communications. Our wars differ so essentially from the wars carried out by Continental armies that we should not adhere to a servile imitation of their systems, but we should originate one of our own which may be in consonance with our requirements. Our wars are not carried over the frontier into an enemy's country, neither can we live on the resources of the invaded territory, and are therefore dependent on England for nearly all that we need during the course of operations. The duties of our Commissariat Officers, therefore, differ very essentially from those of the Commissariat Officers of the German and other armies. 130

There could have been no clearer statement of the imperial reforming standpoint, although, doubtless for rhetorical purposes, Purse seems


to have greatly underestimated the extent to which German supply organisation for war was dependent upon the home base.

In response to Wolseley's proposal, a committee was formed within the War Office to discuss the creation of a new Q.M.G.'s department. The committee, whose members included Wolseley, Evelyn Wood, Buller, Haliburton, Ralph Knox and the mounted infantry reformer H.J. Alderson, recommended the appointment of a Quartermaster-General for the home army, charged with the direction of all services connected with the feeding, moving and quartering of troops. His department was to be divided into two sections, administrative and executive. A Q.M.G. of high rank was to be included on the staff of any expeditionary force, and to have the same role in the theatre of war as the permanent Q.M.G. had for the entire home army. During a campaign, the Surveyor-General of the Ordnance was to correspond with the C.O.C. via his Q.M.G., rather than directly. Command of troops and administration of supplies and transport would therefore form a matrix of interlocking responsibilities. After some further debate as to the details of the proposed reform, it received the approval of Stanhope, the then secretary of state. Major-General Redvers Buller was appointed Quartermaster-General at headquarters in October 1887, and his duties officially defined by order in Council the following February.  

131. Report of the Committee appointed to consider the Regulations for the Organization of the Lines of Communication, (March 1887) W.O. 33/47.  
132. Memo. of April 1887 by Haliburton, of 22 May 1887 by Buller, of 3 June 1887 by Haliburton, all W.O. 33/55; G.O. (1887), no. 85; A.O. (1888), no. 57; order in council of 21 Feb. 1888, repr. Report of His Majesty's Commissioners Appointed to Inquire into the War in South Africa, appendix 41, 271. P.P. (C.1792, 1904), 42. The order in council was phrased:

The Quartermaster General.

Is charged with supplying the Army with food, forage, quarters, transports, and remounts; with the movement of the troops, and with the distribution of their stores and equipment. He will administer the Commissariat and Transport Corps, the Pay Department, and the Establishments employed on the above services; and will deal with sanitary questions relating to the Army.
In his history of supply and transport in the British army, Sir John Fortescue regarded the formation of the Army Service Corps as the work of one man, Redvers Buller. Certainly, Buller's was the guiding hand, but the creation of such a corps was the natural sequel to the years of preceding experience and discussion. Despite the recent reforms, friction between departmental and military officers persisted. The basic problem which Haliburton had delineated some years earlier remained:

We have doctored the Departments generally, patched them here, and strengthened them there, but we have never done the one thing needful to remedy the standing evil which paralyses them. We have never established a community of interest, a sympathy and fellow feeling between the Army and the Departments created for its supply and maintenance.

Upon his appointment as Q.M.G., Buller resolved to remedy this situation. The system established in 1880 he judged to be reprehensible, because it neither permitted officers a stable career in the Commissariat and Transport Corps nor gave them a proper military standing. Buller's aim, in comparison, was both to encourage permanent specialisation and to end the quasi-military standing of supply officers. The 1880 reform had been intended not only to phase out civilians but to create a reserve. In this respect, the measure had been a signal failure. The Corps had neither the intrinsic appeal of a combatant arm nor offered stability


and the emoluments attached to steady promotion. Thus, at the close of 1887, while the official Commissariat and Transport establishment was 244, only 224 officers were actually serving. The latter was the precise figure the current mobilisation tables laid down as necessary for the lines of communication and base of two army corps. After allowing for the requirements of home and foreign stations, Buller estimated that only 113 would remain available for the expeditionary force. Virtually no reserve existed. His solution to these problems was the formation of an Army Service Corps of a purely military status and of sufficient size (after calling out of the reserve) to provide for defence at home and abroad and for a striking force of some 70,000 troops. It is interesting to see how even so simple a standard as the two corps requirement helped to clarify the aims of reformers.

Within the War Office, Buller's proposals met with immediate approval. St. John Brodrick (Financial Secretary 1886-92), Stanhope, and the Lords Commissioners of the Treasury all looked favourably upon the scheme. George Lawson (Assistant Under-Secretary from 1895), saw it as a revival of Control in a military guise and a regimental form suited to British traditions. Reasons for its ready acceptance are not far to seek. Since the Crimea, attempts had been made to give the supply department a military standing. For nearly a decade, reformers had been agreed that a unified and wholly military organisation was needed for the lines of communication in modern war. Buller's scheme appealed to soldiers in a way that Control never had.

135. Buller to the Military Secretary (Sir George Harmon), 17 Nov. 1887; ms. memorandum of 27 July 1888, W.O. 32/6072.

(An official who could announce himself as "Your Controller, sir", tended to generate reactions from traditional generals which gave rise to many apocryphal stories.) Finally, the Treasury was delighted, as regimental pay was less than the departmental rates enjoyed by supply officers. The difference was considerable. When the A.S.C. was set up, all new officer recruits were to be placed on one scale (a third higher than infantry rates), while all Commissariat and Transport Officers who had joined the Corps before the 30 January 1880 were to remain on departmental rates until retirement. On the first scale, a major earned 18/- daily; on the second, 30/-. A captain earned 15/- on the first and 25/- on the second. Actuaries estimated an annual saving of £17,958 from the new scheme, and the Lords Commissioners promptly agreed to support it.137

With remarkably little fuss, considering the significance of the change, the Army Service Corps was established by Royal Warrant in December 1888, as a wholly military body to perform all executive duties of supply and transport. It was to comprise both officer and other ranks, it was to be drilled, paraded, and armed like an ordinary army unit, it could recruit direct from the R.M.C., and its senior officers were to be eligible for appointments on the general staff.138

The publication of the Army Service Corps Journal symbolized its establishment as a regular arm of the service, and the articles therein testify to the esprit de corps which developed after Buller's reforms.


In succeeding years, the role of the Army Service Corps in war was worked out with some precision. Regulations for war were based upon the concept of articulation. An army in the field was to be a connected whole, its advanced forces wholly dependent upon the base, and joined to it via a series of intermediate bases; the depots. The army's lifelines, its communications, were to form one command and to be organised by one service, the Army Service Corps. Regimental transport was to be distributed at the outset of a campaign and to be retained by the units for its duration. On the eve of the South African war, the official supply and transport organisation for an army corps in the field was as follows. The first line of transport was composed of A.S.C. sections who accompanied the advancing troops and carried small quantities of stores; that is, the regimental transport. The second was composed of the A.S.C. with the supply wagons and carts, the baggage wagons, and the forges, and the third line of the A.S.C. with the advanced depots and the depots on the line of communications.\(^\text{139}\) When the expeditionary force was sent to South Africa in 1899 and 1900, this system was set up and worked with admirable efficiency until, as Dr. Page has shown, it was dismantled by Kitchener and replaced with the system of column transport.\(^\text{140}\) In effect, the organisation of an army corps in the field reflected in miniature the supply system of the empire. Through the navy, the network of imperial contracts and the developing storage centres, and the direction of the Woolwich and Whitehall authorities, a small expeditionary force could be sent to, and maintained in, any part of

\(^{139}\) Lieut.-Col. H.M.C. Brunker, *Chart of an Army Corps and Cavalry Brigade (1899); Report of His Majesty's Commissioners Appointed to Inquire into the War in South Africa* Minutes of evidence, 216-17 (Gen. Sir Redvers Buller), P.P. (C.1791, 1904), 41.

\(^{140}\) Andrew Page, "The supply services of the British Army in the South African war", (Oxford D.Phil. thesis 1977), 135-42.
the world.

In closing, the importance of this subject to the late Victorian army's development may be stressed. On every hand reformers advocated military specialisation in preparation for war, and this entailed the extension of military control into army services in the field. Reformers seized upon experiences in colonial warfare in order to buttress their arguments. To Sir Edward Morris, the railway operations had made it obvious that a civilian establishment should have been sent to Egypt. To Major Wallace, they had proven the need for a permanent military railway corps.141 Lieutenant-General Sir Andrew Clarke drew the same conclusion from the Suakin expedition of 1884. Condemning the presence of civilian railway contractors within the theatre of war, he wrote: "Harmony of action and a scientific employment of resources can be attained only by an organisation drawn up on military lines ..." 142 In every sphere of the late Victorian army, examples of similar attitudes can be adduced. A committee examining Royal Engineer organisation, for instance, would brook no distinction between "professional" and military duties. As Colonel E. Wood put it: "Before everything else we must fully realise that we are soldiers first and engineers afterwards".143 Supply and transport organisation was an important aspect of the considerable, if slow and erratic, growth of military professionalism in the late nineteenth century. At the beginning of this

141. Report of the Select Committee on Commissariat Services, op. cit., 16, 221.


143. Report of a Committee on the Organisation of Royal Engineers (1891), W.O. 33/51; Col. E. Wood, "The Duties of Royal Engineers in the Field", P.P.R.E. 15 (1889), 71.
period, the Commissariat was in name and reality almost wholly civilian. By its close, transport and supply had been drawn into a single service, an integral part of the army both on paper and in personnel.

Finally, this subject illustrates the kind of synthesis which imperial reformers tried to achieve once the first wave of intense admiration for Germany had passed. Whatever in foreign systems seemed to be suited to a scattered army constantly engaged in irregular warfare, they were happy to import. They therefore were exposed to criticism on two counts, for being seduced by foreign examples or over-preoccupied with the trivial demands of small wars. The preceding discussion has shown, it is hoped, that these did not exert a wholly conservative influence, as some contemporaries believed and some historians have argued. Moreover, in the operational sphere, facing formidable logistical problems, obliged to improvise and bound by the demands of economy, Victorian soldiers could be quite capable of exploiting local resources with intelligence and foresight, and discharging swiftly and effectively the aims of policy.
CONCLUSION
The preceding study has shown the deep interest in foreign military systems amongst Victorian army reformers. It has also emphasized that many became preoccupied with two related themes: the differences between European and imperial warfare, and the relevance of foreign examples to a small volunteer army. Debate on these lines produced a school of thought which argued that Great Britain should develop an imperial system of thought, organisation, and training.

It was not difficult to accept this in principle. It was quite another matter to put the principle into practice. Similarly, for the student, it is not hard to discern the schools of opinion in the literature; it is a more taxing task to assess their practical effect. Nevertheless, in the attempt to do so, the documents have provided a good many answers.

Mobilisation schemes were initially inspired by the speed with which Prussia had marshalled its military forces in 1866 and 1870. But, until 1886, British mobilisation was the form without the substance. It was Henry Brackenbury's achievement to make it real. In his and subsequent schemes, planning for war was based upon actual resources and worked into the existing army structure. After Stanhope's policy statement, mobilisation was understood to embrace the needs of two contingencies: first, of an expedition outside continental Europe in support of an ally, and, second, a major colonial war. A chief defect of the scheme, and of the Cardwell system itself, was its failure to provide for the recurrent demands of imperial policing. Throughout the period, reformers stressed that small wars should be conducted without disruption to the whole system. Only towards the century's close did their views find a response in law.

Lessons from the great continental wars had a profound impact upon British tactical doctrine. It was further modified by reformers who
were critical of some foreign theorists and felt that the cult of the offensive and the massed attack were being taken too far in continental armies. Cautionary guidelines laid down for British manoeuvres—established in direct response to foreign examples—seem to have been part of this development. The sense of a British and imperial tradition was plainly reinforced by colonial campaigning. Whether this had any immediate effect upon training has been impossible to ascertain. Nonetheless, experience of imperial warfare led to the formation of two new services, machine-gun corps and mounted infantry.

The rise of higher education in the Royal Artillery was a clear instance of observation of foreign armies leading to reform in Britain. The system of education in this arm became the most advanced in the army. But the drag of conservatism and financial exigencies ensured that, in comprehensiveness, it lagged behind its foreign counterparts. The issue of artillery organisation was rather more complicated. Both conservatives and some progressives argued that a unified service was more suitable to an imperial army. Because Wolseley advocated division of the arm, however, those who opposed him seemed to be supporting the status quo for its own sake. Moreover, reformers who proposed division for imperial reasons also tended to advocate it on the grounds that modern gunnery demanded professional specialisation. The needs of imperial defence, as seen by Wolseley and those of like mind, combined with the growing professionalism of the arm to provide a further reform.

At the outset of the period, Britain's supply and transport system, at least in its administration, was modelled upon the French Intendance. The central theme of subsequent developments was the concept of articulation, derived in principle from the German army but eventually fitted into the British regulations for war. Interwoven
with this theme was the long-standing antagonism between the combatant arms and the civilian Commissariat. Colonial warfare contributed directly to both aspects of supply and transport reform. It was a school of experience which helped to rectify the deficiencies of home training. Conceptually, the supply network of an imperial war exemplified articulation in its grandest form. Debate concerning the logistics of colonial wars finally bore fruit in the creation of the Army Service Corps, whereby civil/military friction in the supply services was obviated.

The Victorian army was not transformed during the period under review, but it was substantially altered. Many elements were involved in this process, but it has seemed useful to choose one leading theme, and to trace it through a number of major issues affecting each of the main services. In the aspects examined, the army was well on the way to modernization by the end of the century. Finally, what has been shown has highlighted how much more we need to know about the Victorian army. The exact structure of military administration, the social composition of the officer corps, the links between War Office and Admiralty, and the political background to certain reforms, still await complete elucidation.
APPENDIX I

Perm U. S. S.

Surveyor General of the Ordnance

Director of Supplies and Transport

Director of Artillery and Stores

Director of Army Contracts

Director of Clothing

Inspector-General of Fortifications

S. of S.

C.-in-C.

Military Secretary

A. G.

Q. M. G.

Parlt. U. S. S.

Financial Secretary

Accountant-General

GARRISONS

Correspondence

G. O. C.

Correspondence

Senior Commissariat Officer

A. A. G.

Paymaster

Senior Ordnance Store Officer

A. Q. G.

Commanding R.E.

A. Manuscript Sources.

B. Official Papers.

C. Official Army Publications.

D. Parliamentary Papers.

E. Periodicals and newspapers.

F. Primary published: memoirs, contemporary biographies, military treatises and pamphlets.

G. Secondary sources.

A.


Chelmsford Papers. The papers of Frederic Thesiger, Baron Chelmsford, National Army Museum.


Devonshire Papers. The papers of Spencer Cavendish, Marquess of Hartington and Duke of Devonshire, Chatsworth House, Derbyshire.

Maurice Papers. The papers of Major-Gen. Sir John F. Maurice, the Liddell Hart Centre for Military Archives, King's College, London.


Stanhope Papers. The papers of Edward Stanhope, County Record Office, Maidstone, Kent.

Wilkinson Papers. The papers of Spenser Wilkinson, Ogilby Army Trust, Whitehall.

Wolseley Papers. (a) The m.s. journals of F.M. Sir Garnet Wolseley, Viscount Wolseley, Public Record Office, W.O. 147.

(b) The papers of F.M. Viscount Wolseley, Hove Central Library, Sussex.

Note: The collection entitled the Wolseley Papers at the Ministry of Defence Library, Whitehall, consists of printed official material duplicated in W.O. 33 and 106.

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Dilke Papers. The papers of Sir Charles Dilke, British Library.

Gladstone Papers. The papers of William Gladstone, British Library.


Public Record Office, W.O. 32. Miscellaneous reports and memoranda.

Public Record Office, W.O. 33. Reports and memoranda (the chief source for War Office policy from the Crimean War to the South African War).
(i) Regular series

Army Circulars 1867-1887 Public Record Office, W.O. 123.

Army Orders 1888-1900

General Orders 1874-1887 (H.M.S.O. 1888)

Queen's Regulations and Orders for the Army 1870-1900

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Field Artillery Service Handbook (H.M.S.O. 1897)

Field Exercise and Evolutions of Infantry (H.M.S.O. Editions of 1867, 1874, 1877, 1884)

Field Service Manual Mounted Infantry (H.M.S.O. 1899)

Handbook of the French Army, compiled by Capt. G.A. Wisely. (H.M.S.O. 1891)

Handbook of the Italian Army, compiled by Col. J.R. Slade. (H.M.S.O. 1891)

Handbook of the Military Forces of Austria-Hungary, compiled by Maj. J.J. Leverson. (H.M.S.O. 1891)

Handbook of the Military Forces of Russia, compiled by Capt. J.M. Grierson. (H.M.S.O. 1894)

Infantry Drill (H.M.S.O. Editions of 1889, 1892)
Infantry Training (Provisional) (H.M.S.O. 1902)

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Manual of Instruction in Regimental Transport Duties (H.M.S.O. 1892)

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