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Did professionals talk logistics? Officer education at the British Army Staff College, 1903–1914

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ABSTRACT
This article examines the education in the fields of supply and transportation provided to officers at the British Army's Staff College. Drawing upon materials produced by those who taught and studied at the College between the South African War and the First World War, this article argues that the importance of logistical issues to military operations was clearly understood within the British Army, and considerations of supply and transportation matters were key components of the syllabus. However, its success was limited by an inability to correctly anticipate the character of the war that broke out in August 1914.

Russia's invasion of Ukraine in February 2022 brought into sharp relief the relationship between military logistics and military operations. Initial reports of Russia's failed attempt to take the Ukrainian capital of Kyiv were peppered with examples of military vehicles running out of petrol, of soldiers abandoning their posts in search of food, and of vital functions such as moving supplies being mishandled. Whether or not the existence of a forty-mile long column of immobile lorries to the north-west of Kyiv was the result of inadequate vehicle maintenance, poor traffic management, or a combination of factors, the convoy's static presence was a graphic illustration of the ways in which logistics 'governs the battlefield, not only at the lowest levels of strategy, where it determines whether or not soldiers receive food and bullets, but at the highest, where it determines what armies can do'.[1] As Michael Kofman observed – and

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[1]Thomas M. Kane, *Military Logistics and Strategic Performance,* (London: Routledge, 2001), p. 32.

as President Putin discovered – armed forces frequently have to identify, confront, and solve their logistical challenges 'the hard way'.[2]

This article discusses how subjects related to logistics, particularly those surrounding supply and transport, have been dealt with the 'easy way' – in the cool of professional military education rather than the heat of battle. It focuses upon *what* students were taught at the British Army's Staff College in the decade preceding the First World War, rather than *how* they learned; upon the material the army chose to present to students who were likely to fulfil staff posts and higher command roles, and the extent to which the syllabus provided those students with a thorough appreciation of modern war's characteristics. Those choices played a key role in framing the mental parameters within which the British Army of 1914 approached the task of confronting a first-class European army for the first time in a century. By focusing on 'the only institution devoted to the instruction of the future leaders of the Army after they had been commissioned', this article both contributes to ongoing debates as to the soldierly qualities of those who passed through the Staff College and provides an insight into the appreciation of military supply and transport among those who taught and learned there.[3] It confirms David French's observation that students at the College 'were … required to pay more attention … to logistics' after the South African War, and defines more sharply the relationship between the Staff College curriculum and the evolving strategic context in which it was delivered.[4]

The South African War has long been recognised by historians as the catalyst for major reform both within the British Army and across the wider field of British imperial strategy. The army's dismal attempts to vanquish the Boers led to widespread changes throughout the force, covering everything from tactical training to the organisational structure of the army itself.[5] The Staff College was not immune from these trends, and recent accounts have broadly agreed that from 1903 Camberley 'acquired a new spirit and purpose', largely thanks to the energies and efforts of successive commandants,

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[2]Dan Sabbagh, 'Russia 'solving logistics problems' and could attack Kyiv within days – experts', *The Guardian*, 8 March 2022 https://www.theguardian.com/world/2022/mar/08/russia-solving-logistics-problems-and-could-attack-kyiv-within-days-experts. Accessed 25 July 2023.

[3]Brian Bond, *The Victorian Army and the Staff College, 1854–1914,* (London: Eyre Methuen, 1972), p. 3.

[4]David French, *Military Identities: The Regimental System, the British Army, and the British People, c. 1870–2000,* (Oxford: Oxford University Press, 2005), p. 161.

[5]See, for example, Timothy Bowman and Mark Connelly, *The Edwardian Army: Recruiting, Training and Deploying the British Army,* (Oxford: Oxford University Press, 2012); Spencer Jones, *From Boer War to World War: Tactical Reform of the British Army, 1902–1914,* (Norman, OK: University of Oklahoma Press, 2012).

Henry Rawlinson (1903–1906), Henry Wilson (1907–1910), and William Robertson (1910–1913), and their directing staffs.[6]

Concurrent with these developments, Britain underwent a diplomatic realignment after 1902 that supplemented the considerable challenges of protecting a global empire with the possibility of involvement in a major war between France and Germany.[7] The breadth of scenarios contemplated by students at the Staff College as Britain's geostrategic position evolved before the First World War demonstrate how the College was affected by wider debates about the army's likely future role. As Major General Edward May observed in 1911: '[w]e must remember that our officers must be prepared to fight in every country on the globe. Arrangements that are desirable in England, or even on the continent of Europe, will be very different from those which will be necessary in South Africa, or on the North-Western Frontier of India'.[8] Of the multitude of arrangements referred to in May's observation, supply and transport ranked among the foremost. Britain's imperial responsibilities necessitated the fulfilment of tasks that were primarily administrative and logistical rather than ones that demanded inspirational feats of command.[9] The importance of the former were underlined to students from the moment they arrived at Camberley,

> [O]wing to its size, the number of its adjuncts, the quantity of ammunition and supply it draws behind it, [a modern army] is specially sensitive as to its communications. And lines of communication form the pivot on which strategic activity hinges; it is at them that strategic blows are most frequently directed; and it is there that they produce their most decisive effect.[10]

Analysis of the Staff College's coverage of these subjects illustrates the kinds of logistical challenges that the directing staff at Camberley and Quetta considered to possess sufficient pedagogical merit to be discussed with their students.[11]

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[6]Rodney Atwood, *General Lord Rawlinson: From Tragedy to Triumph,* (London: Bloomsbury, 2020), p. 77.

[7]Hew Strachan, 'The British Army, its General Staff and the Continental Commitment 1904–1914', in David French and Brian Holden-Reid (eds), *The British General Staff: Reform and Innovation, 1890–1939,* (Abingdon: Routledge, 2014), pp. 75–94.

[8]Quoted in Strachan, 'The British Army, its General Staff and the Continental Commitment', p. 91.

[9]Ibid., p. 73.

[10]Joint Services Command Staff College (hereinafter JSCSC), CR/1903/1/3, General remarks on the course, 29 January 1903, p. 2.

[11]The Quetta College, established in 1907 and dubbed the 'Indian Camberley', 'maintained close liaison with the Staff College in Britain throughout the pre-war period. See Vipul Dutta, 'The "Indian" Staff College: Politics and Practices of Military

The core evidence base for this article is drawn from the so-called Camberley Reds - a compendium of staff notes, exercises, maps, and ephemera relating to material delivered at the Staff College between 1903 and 1913. The 'syllabus did not remain static during this period, but was altered and improved in ways which reflected both wider changes in the army and Staff College efforts to remain thoroughly up-to-date'.[12]

While the spectre of war with Germany loomed increasingly large over the curriculum in the years before 1914, materials within the Camberley Reds emphasise the geographical scope of the exercises set for students in the decade before the First World War.[13] Throughout the period students were tasked with producing plans for the protection of India and the movement of troops around Britain in response to hypothetical invasions.[14] At the same time, students were introduced to scenarios that involved studying the requirements for prospective campaigns in different environments and against a diverse range of potential opponents. In 1912, for example, students in the Senior Division were tasked to prepare and despatch a force of 9,000 troops to quell unrest in Egypt following a fictitious partition of the Ottoman Empire.[15] At other times, potential operations in Basutoland, Abyssinia, and southern Somalia were also considered worthwhile exercises.[16] The content of the tasks devised by the directing staff illustrate the continued importance to the British Army both of ensuring its readiness for home – and imperial – defence, and of preparing for war beyond the empire's frontiers.

Institution-Building in Twentieth Century India', *Journal of Strategic Studies*, 42, 5 (2019), pp. 600–625.

[12]Andrew Duncan, 'The Military Education of Junior Officers in the Edwardian Army' (PHD Thesis, University of Birmingham, 2016), p. 197.

[13]The earliest reference within the curriculum to the defence of Belgium from German aggression appears to be in an exercise set in October 1905. See Liddell Hart Centre for Military Archives (hereinafter LHCMA), Shea 2/3, Scheme for the Defence of Belgium, 1905.

[14]See, for example, JSCSC CR/1904/2/92 Defence of the Indian Frontier, 1 November 1904; CR/1911/2/36 Railway Control Exercise II, 27 March 1911; CR/1913/2/77 War Game, 6 November 1913.

[15]JSCSC CR/1912/2/74 The Preparation and Despatch of a Special Expeditionary Force, 17 October 1912.

[16]JSCSC CR/1904/2/81 Study of a Possible Campaign in Basutoland, 11 October 1904; JSCSC CR/1906/2/82 Study of a Possible Campaign in Abyssinia, 18 October 1906; JSCSC CR/1910/2/98 Jubaland Scheme, 10 November 1910.

However, as Brian Holden-Reid has acknowledged, 'reconstructing what was actually taught at a given date, and how it was taught, is far from an easy task'.[17] Scant details are retained within the Camberley Reds regarding the lecture programme delivered to students each year, and the information recorded in the syllabi for various topics is generally restricted to a list of broad subject areas rather than the content of individual lectures.[18] From these documents it is impossible to identify the key messages emphasised by the directing staff within the classroom. For example, the available evidence confirms only that an address on 'Supply and Transport services in small wars (Extra-European conditions)' discussed themes including 'the influence of climate and physical conditions' and 'systems of supply' in non-European settings.[19] It provides no further insight into the specific knowledge the students were expected to acquire on those subjects.

The surviving records of completed schemes are similarly far from comprehensive. Major John Shea's 'Basutoland Scheme' from October 1905 represents one of precious few examples of an assignment submitted for comment from the directing staff identified during this research. The feedback Shea received provides us with a tantalising glimpse into the College's priorities. Colonel Richard Haking's criticisms focused on the scheme's deficiencies principally from a logistical perspective. Haking noted that, from the information presented by Shea and his colleagues, he did 'not know what Columns I and II consist of. Still less do I know the composition of Columns I and II'.[20] Consequently, he could not decipher 'the daily weight of supplies for each column, the daily weight of supplies for troops detached from each column and where they are to be detached to, and the advanced depots of each column'. Without this information, Haking stressed that it was impossible to 'calculate the amount of transport necessary to keep the Advanced Depots filled up [and] the amount of transport necessary to keep each Column supplied' when it was three, four, or five days away from the advanced depot. Upon such calculations the success of those columns' operations was likely to depend. Therefore, highlighting deficiencies in the students' presentation of accurate, accessible data were a key aspect of Haking's feedback.

[17]Brian Holden-Reid, *War Studies at the Staff College, 1890–1930,* (Camberley: Strategic & Combat Studies Institute, 1992), p. vii.
[18]See, for example JSCSC CR/1911/1/130 Syllabus for examination in staff duties, organisation, and administration, October 1911.
[19] JSCSC CR/1911/1/131 Syllabus for examination in supply, transport and remounts, October 1911.
[20]LHCMA Shea 2/1 Basutoland Scheme, Criticisms by RH, October 1905. All quotations in this passage are derived from this source.

The task of reconstructing Camberley's educational priorities is made more difficult by the fact that the diaries and memoirs of those who attended the College during this period – whether as students, staff, or occasionally as both – tend to gloss over reflections on its teaching and learning environment in favour of reminiscences that focus on friendship, sports, and other extra-curricular activities. Even though a Staff College education was regarded as an 'important indication of professional ability and so was keenly pursued by able and ambitious officers', it is remarkable how few of those officers' reflections on their education at the College have survived.[21] As a typical example, John Burnett-Stuart, who graduated from Camberley in 1904, chose not to 'dilate' on his time there in his unpublished memoir, stating only that the course,

> was a great refreshment for the body and for the mind. You worked hard, but not too hard; you made friends with officers of your own generation from throughout the army; you lived in pleasant surroundings, with recreation of all kinds at your door; you had your regular holidays; and, above all, you knew that, God willing, you were there for two whole years, with no other responsibilities than to learn as much as you could.[22]

Edward Beddington, who graduated in 1913, provides another enigmatic observation. He recalled 'having learnt an awful lot but also having had a very happy time doing it'.[23]

The records and recollections of the directing staff from the period are little more illuminating. Hubert Isacke kept a diary while teaching at the Staff College in Quetta between 1913 and 1914. In it, he carefully recorded the amount of time and energy that he put into devising schemes and providing comments on students' assignments. Isacke spent four consecutive days in May 1913 writing feedback on a railway scheme, and the development of a single line of communications exercise consumed much of his time between June and August.[24] However, references within the diary to his actual teaching are little more than sparse descriptions, and he offered no comment at all on the quality – or otherwise – of his students' work. On 25 February 1913, for example, he '[g]ave a lecture on the British Army and did some railway work', before on 3 March he 'attended Taylor's lectures in [the] morning'. Even when he did elaborate – as he did for a lecture on mobilisation in the Franco-Prussian War – his ruminations were limited to not having felt 'quite as at home [with the subject] as I had done before'.[25] George de Symons Barrow taught at Camberley for two years from 1908, and wrote in his autobiography that '[m]ost of the work was of great interest and all

[21] Duncan, 'Military Education of Junior Officers in the Edwardian Army', p. 17.
[22] LHCMA Burnett-Stuart 6, Memoirs, pp. 45–46.
[23] LHCMA Beddington 1, My Life, p. 52.
[24] LHCMA Isacke, diary entries, May to August 1913.
[25] LHCMA Isacke, diary entries, 25 February, 3 March, and 4 March 1913.

of it accompanied by the satisfying feeling that it was useful'. Yet the remainder of the paragraph goes on to detail the different sports and outdoor pursuits available to staff and students rather than offer further comment on the 'useful' work accomplished at the College.[26]

This focus on the extra-curricular has frequently been mirrored in historical treatments of the Staff College. Both of the histories of Camberley written by graduates of the College were produced with a readership of former students in mind.[27] As a result, the content of both erred on the side of the 'antiquarian or anecdotal' rather than the analytical.[28] Alfred Godwin-Austen in particular devoted 'a good deal of space to such matters as the history of the [College's] buildings, sporting events and festive occasions', and provided relatively little material on the evolution of the curriculum.[29]

Academic historians have been heavily influenced by these editorial choices. Where the content of the Staff College's curriculum has been examined, previous analysis has overwhelmingly focused upon the use of military history as a pedagogical tool. Ian Beckett noted that the material delivered by John Gough as a member of staff 'bore some similarity' to that which he had received as a student, with the study of military history and the lessons that could be derived from it 'a constant element' of the two-year course.[30] The campaigns studied during the period included those drawn from historical events – such as the Napoleonic Wars, the American Civil War, and the Wars of German Unification – and those identified from contemporary conflicts; students at the College in 1904 and 1905, for example, were tasked to deliver lectures on developments in the Russo-Japanese War as it happened.[31] Adam Dighton has examined how the subject was taught before 1914, arguing that 'the desire to improve officers' professional abilities led military history to play an increasingly important role in army education'.[32] That role was expressed clearly to students upon their arrival at the Staff College. In 1903, Colonel Edward May informed the Junior Division that,

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[26]George de Symons Barrow, *The Fire of Life,* (London: Hutchinson & Co., 1942), p. 45.
[27]Alfred Reade Godwin-Austen, *The Staff and the Staff College,* (London: Constable & Company, 1927); Frederick Young, *The Story of the Staff College, 1858–1958,* (Camberley: Staff College, 1958).
[28]Holden-Reid, *War Studies at the Staff College*, p. vii.
[29]Bond, *Victorian Army and the Staff College*, pp. 4-5.
[30]Ian Beckett, *Johnnie Gough V.C.: A Biography of Brigadier-General Sir John Edmond Gough V.C., K.C.B.,* (London: Tom Donovan, 1989), p. 140.
[31]Bond, *Victorian Army and the Staff College*, p. 197 & p. 206.
[32]Adam Dighton, 'Army officers, historians and journalists: the emergence, expansion and diversification of British military history, 1854–1914', (PhD Thesis, University of Salford, 2016), p. 30.

> The object of the course in military history is to store the memory not so much with facts as principles; to teach you to weigh evidence; to discriminate; to put statements to the proof; to allow for special circumstances and conditions.
>
> By acquiring knowledge of military history you may benefit by the experience of others, and a well-read man who can apply his knowledge gains the same advantage which prolonged experience may give to one who has never had the opportunity to study.[33]

Yet according to Ian Malcolm Brown, the curriculum's 'emphasis on command downplayed the importance of lines of communication', something that made solving the specific challenges of supply and transport faced by the British Army after 1914 more difficult to achieve.[34]

Military history was just one component of a far broader education delivered to students at the Staff College between 1903 and 1914. Students who attended the College were introduced to what Brown refers to as the 'mundanities of supply' and were tasked to prepare materials that demanded the mathematical precision, the organisational skills, the anticipation of unforeseen circumstances, and the keen eye for detail required of military administrators.[35] In short, the Staff College's curriculum demonstrates that prior to 1914 the British Army understood that 'strategy and tactics are now bound hand and foot by administration, and it inculcated these lessons into those officers destined for positions of great responsibility within it'.[36] However, their efforts to create an army suited to the unprecedented environment of the Western Front proved to be of limited value due to the College's failure to actively confront key questions around the scale of the German challenge.

Officers required a sound knowledge of logistics even to gain entry to the Staff College. As noted by Clem Maginniss, a considerable proportion of the questions in the annual entrance exam – between 47 per cent and 57 per cent – tested prospective students'

[33]JSCSC CR/1903/1/3 General remarks on the course, 29 January 1903, p. 1.
[34]Ian Malcolm Brown, *British Logistics on the Western Front, 1914–1919,* (London: Praeger, 1998), p. 21.
[35]Ibid.
[36]Wilfred Gordon Lindsell, *A. & Q. or Military Administration in War,* (Aldershot: Gale & Polden, 1933). This text was written as a primer for students at the Staff College in the inter-war period.

knowledge of administrative subjects.[37] Inadequate performance across such a large amount of the examination paper was liable to be fatal to any aspiring student's chances of success. As Andrew Duncan has illustrated, the number of officers competing for places at Camberley was greater than the number of vacancies throughout the period 1903–1914. Consequently, officers who secured a pass mark in the examination were not guaranteed to be admitted onto the course. Instead, admission through the examination process was reserved only for those awarded the highest marks. Therefore, those who neglected to study administrative topics placed themselves at a distinct disadvantage.[38]

Such topics were rarely far from the minds of those officers who secured their place at the Staff College either. As Colonel Thomas explained in a lecture addressed to senior officers in January 1906,

> It must be well known to all how many weighty decisions in war are seriously affected by, if not entirely ruled by, questions of Supply and Transport. I think it will be further conceded that the more civilized we become, the greater are our wants. What was a luxury at one time, in a few years becomes an absolute necessity. The difficulties of Supply and Transport must therefore go on increasing. As the difficulties increase, so much the more is it necessary that a larger number of Officers should become conversant with the subject and its difficulties.[39]

Education in the field of supply and transport was delivered under the umbrella of Staff Duties and Service of Maintenance – one of two study sections to which each item on

[37]Clem Maginniss, *An Unappreciated Field of Endeavour: Logistics and the British Expeditionary Force on the Western Front, 1914–1918,* (Warwick: Helion, 2018), p. 47 footnote 9.

[38]Duncan, 'Military Education of Junior Officers in the Edwardian Army', p. 192. As Duncan also notes (pp. 193-195), officers also gained entrance to the Staff College through nomination rather than through performance in the annual examination. However, from 1908 onwards officers had to have attained the pass mark of fifty per cent on the examination to be eligible for nomination. During this period several books were published, which acted as revision aids for prospective Staff College students. See, for example, Hubert Foster, *Staff Work: A Guide to Command and General Staff Duties,* (London: Hugh Rees, 1912).

[39]The UK National Archives (hereinafter TNA) WO 279/9 Conference and staff ride at the Staff College by senior officers of the General Staff, Supplies and Transport, by Colonel A. H. Thomas, 4 January 1906, p. 69.

the College's programme of work belonged.[40] Two days per week were dedicated to teaching in each section, with a 'spare' weekday left at the commandant's disposal. Such a practice could easily have led to the eclipse of one section by the other. However, the College recognised the potential risks inherent in the separation of staff duties from wider considerations of tactics and strategy and the directing staff were encouraged to ensure that 'the closest touch … be maintained between the officers in charge' of the two sections. Staff were informed that 'it should be rare that an outdoor exercise should take place which does not involve the presence of both [sections'] officers', and great care was also taken to guarantee that the two sections complemented each other rather than became watertight. Aside from the comparatively simple exercises delivered to students in their first term at the College, directing staff were instructed that,

> there can be hardly an outdoor exercise set for the purpose of teaching Strategy or Tactics, which does not involve a close consideration of Staff Duties, and, conversely, to get the best value out of any Staff Duties scheme, either Strategy or Tactics, or both, must be considered.[41]

Students were taught through both lectures and practical exercises. The curriculum was designed to ensure that information disseminated through the former could be tested by completion of the latter. The importance of the practical exercise as a pedagogical tool was increasingly recognised in the years prior to 1914. As Philip Howell observed, the 'lecture system [was] beginning to lose credit' within the Staff College shortly before the First World War. While he acknowledged that lectures provided 'knowledge in the easiest possible form', he criticised their inability to exercise the qualities an officer most required: 'his powers of reasoning, deduction, decision and determination'. He argued that far more value could be derived from participation in practical schemes than by 'mere narration', and that 'if a census of opinion were sought for from Staff College graduates of recent years, the majority would, I believe, agree that three hours spent on an average tactical or strategical scheme were worth six hours spent listening to six average lectures on similar subjects'.[42]

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[40]Staff Duties and Service of Maintenance comprised the second section, with the first covering History, Strategy, and Tactics. See LHCMA, Montgomery-Massingberd 4/4, Instructions for the Directing Staff, 8 April 1913.

[41]Ibid.

[42]LHCMA Howell 5/1/4 Notes on the Report of the Committee on the Organization and Training of the Royal Naval War College, 1913, pp. 3–4. Unless stated otherwise, all quotations in this passage are derived from this source.

However, the lecture continued to occupy a prominent place within the curriculum before the First World War. At Quetta in 1913, students of the Junior Division received fifteen lectures that discussed the Waterloo campaign of 1815 in exhaustive detail.[43] The lecturers in the Staff Duties and Maintenance section also included historical content, frequently combined with information about the organisational structure of the British Army and the armies of other, chiefly European, powers. Lieutenant-Colonel Thompson Capper delivered seven lectures on the subject of Railways in War during 1903, which alongside describing the management of railways in peacetime and outlining the relationship between the general staff and railway staff of an army, also drew upon examples and topics for further elaboration from the Prussian campaign against Austria in 1866, the failures of French railway planning in 1870, Russian and Romanian experiences in 1877, and Britain's use of railways in South Africa.[44]

The lecture programme was augmented by occasional papers from experts in the field, civilian and military, in which questions of supply and transport featured often. Wilfred Tetley-Stephenson, an academic at the London School of Economics and former employee of the North-Eastern Railway, provided students at Camberley with a talk on railways in war both on 20 November and 6 December 1909, while Major Crofton Atkins (Chief Instructor at the Army Service Corps' School of Instruction) discussed 'living on the country' on 4 December of the same year.[45] At Quetta, Captain P. C. Sanders of the Supply and Transport Corps delivered a guest lecture entitled 'the working of motor lorries on lines of communication as compared with pack and cart transport' on 18 January 1912.[46] These optional lectures took place outside the scheduled teaching programme, which afforded students with a keen interest in the subject an opportunity to deepen their knowledge of material covered elsewhere in the syllabus. However, the surviving records do not provide further information on how well attended such lectures were, nor on the nature of the discussions they inspired among the students who chose to attend. It is also impossible to discern from the existing documentation the differences between, for example, Tetley-Stephenson's treatment of railways in war as opposed to the content of the seven lectures on the

[43]Archibald Montgomery's lecture notes are preserved in LHCMA Montgomery-Massingberd 4/11, Lecture on Waterloo Campaign. He covered the campaign in Virginia in 1862 in a similarly thorough manner, see Montgomery-Massingberd 4/13.
[44]JSCSC CR/1903/2/9 Lectures and Schemes, Senior Division, 24 January 1903.
[45]National Army Museum (hereinafter NAM) Loch 9412-249-216, 9412-249-217, and 9412-249-219, Programmes of Work for week ending November 20, December 4, and December 11, 1909.
[46]LHCMA Montgomery-Massingberd 4/1 Staff College Orders, Friday 12 January 1912.

subject delivered to the Senior Division by Colonel Perceval earlier in the year, or for that matter, by Capper a decade earlier.[47]

While little material has survived to help construct the content of individual lectures in the Staff Duties and Maintenance section, the lecture titles catalogued in the weekly timetable of activities at Quetta indicate the subjects considered by the directing staff to be crucial components of their students' education. In 1912 and 1913, the Junior and Senior divisions received lectures on supply and transport systems in Britain and India, railways in the Franco-Prussian War, supply in the Second Afghan War, railways in Manchuria, lines of communications, the use of railways for concentrating troops in India, the maintenance and movement of large forces and the protection of lines of communications, mechanical transport, and roadmaking among others.[48] In many cases, the subjects of the lectures were directly linked to the content of schemes undertaken by the students at the same time, providing them with the opportunity to immediately apply their newly acquired knowledge to practical exercises.

The complexity of those exercises increased significantly as students progressed through the course. Indeed, many of those presented to students in the Junior Division comprised comparatively straightforward, mundane administrative tasks that changed little in the period between 1903 and 1914. In one early exercise students were given a week to compile a table that recorded the road space that would be occupied by all units on the march on a normal road with both their first line and second line transport.[49] To identify the correct lengths for each column, students merely had to consult the *Combined Training* manual and make a few straightforward calculations. Yet the activity's simplicity instilled in those who completed it an appreciation of a modern army's size. Figures provided to the students the following month illustrated that a single army corps travelling with its second line transport on a standard road occupied more than twenty-nine miles of road space – a substantial logistical challenge to coordinate.[50]

[47]See NAM Loch 9412-249-192 and 9412-249-193 Programmes of Work for week ending February 6 and February 13, 1909. The content of Capper's lecture is likely to have been similar to that contained within his remarks addressed to the General Staff in TNA WO33/2747, Report of a Conference and Staff Ride as carried out at the Staff College by Senior Officers of the General Staff, Concentration and Movement of Troops by Rail by Colonel T. Capper, 3 January 1905.

[48]LHCMA Montgomery-Massingberd 4/1–2, Orders Staff College Quetta, 1912 and 1913.

[49]JSCSC CR/1904/1/25 Junior Division, Staff Duties, 12 March 1904.

[50]JSCSC CR/1904/1/36 Road spaces, 11 April 1904, p. 3.

Subsequent practical schemes shifted the students' focus far beyond standard roads, and emphasised the breadth of environments in which British forces could feasibly be called upon to serve. For a Staff Tour in South Wales in June 1903, the students of the Senior Division were provided with a scenario in which a 'hostile tribe' of 5,000 men had 'raided the frontier of a state under our protection'.[51] A 'punitive force' comprising a regiment of Bengal cavalry, two battalions of Indian and four of British infantry, four British mountain batteries and 70 headquarters troops was to 'occupy the Tawe Valley and impose penalties on the tribe'. While students were offered the chance to increase their forces to take account of the 'probability of vigorous opposition' that their proposed advance was likely to face, they were advised that 'difficulties as to supply will limit the strength of the numbers' they could deploy. Indeed, central to the task confronting the students was the condition of the road network, which was 'reported to be very bad, and only suitable for pack transport'.

The mountains of Eryri represented the North-West Frontier of India during the Senior Division's summer Staff Tour for many years. By 1911, the instructions issued to the students before the tour commenced distinguished between cart roads, camel roads, mule roads and foot tracks. However, to ensure the students did not merely assume that roads would be available for use as soon as their advancing forces took possession of them, the instructions advised that routes 'would require considerable repairs before they could be used again'.[52] As noted in a paper submitted by Captain G. H. Morris, a student during the 1905 tour: 'In determining the plan of operations, the first matter to be considered is the line of advance from which the main blow shall be struck'. That choice, he acknowledged, was influenced both by the principal objective of the mission, defeating the enemy, and by the question of which was 'the best of three self-evident, and only, routes from the point of view of ease of progression and eventual establishment as a permanent line of communication?'[53] Morris' note emphasises the key message of the exercise, and of many of the other schemes undertaken by the College's students, that the availability of suitable lines of communications constrained the tactical and operational choices open to the commander in the field.

Schemes that concentrated on railway transport considered the same constraints at a strategic level. Alongside understanding the importance and physical limitations of roads, developing in students a sound appreciation of railway transport's capabilities

[51]JSCSC CR/1903/2/62 Senior Division, Staff Ride, Mountain Warfare and Arrangements. All quotations in this passage are taken from this source.
[52]JSCSC CR/1911/2/64 Staff Tour in Wales, General Idea (Notes for guidance and information), 26 June 1911, p. 2.
[53]Imperial War Museum (hereinafter IWM) HHW 3/2/1 Minute to the Viceroy by G. H. Morris, p. 1.

and their most effective application to the requirements of military operations was integral to the Staff College's curriculum. Students were repeatedly presented with schemes that demanded them to identify a railway network's capacity and how best to use the medium under wartime conditions. One of the earliest exercises presented to the students informed them that an army corps and cavalry brigade were assembling around Easthampstead (roughly eight miles north of Camberley). Three parties of students were assigned the task of detraining either a division or the cavalry brigade and corps troops at the local stations of Wokingham, Blackwater, and Sunningdale. Each party had a day in which to provide,

> a plan of the Station showing all particulars which it is necessary for me and for the O[fficer]'s C[ommanding] Units detraining to know. Any information you cannot get on the plan may be shown in a short report if necessary. Working plans and sections for any additional accommodation required must be given.
>
> I want to know the rate you can receive troops trains. Civil traffic can be suspended but I want to do this for as short a time as possible.[54]

As the year progressed, the complexity of the railway exercises increased. For one scheme students were challenged to undertake a reconnaissance of the line between Blackwater and Reading, operating under the assumption that 'all important bridges and tunnels and water tanks [had been] destroyed by the enemy; the reconnaissance is to determine the description of stores necessary for repairs, the capacity of railway and rolling stock, and the method to be adopted in working it' once the repairs had been carried out.[55] In another, groups of students were tasked to entrain 4 Division and 12 Lancers to meet an enemy invasion at Plymouth. The scheme demanded the movement of 392 officers, 12,543 men, 4,808 animals, 631 vehicles, 66 guns of varying calibres, seven motors and four pontoons, all of which had to be entrained at Ascot, Ascot West, or Sunningdale stations. Each party had to identify the number and composition of each train they required (which could not exceed sixty axles in size), produce a timetable for their arrival and loading at each of the three entraining stations, chart their journey across southern England to Plymouth, and draft the orders for the move to be issued to the officers commanding the troops involved. To further simulate the immediacy of wartime demands, the parties were presented with their instructions at 11 a.m. on 26 March and had to submit their completed reports by 7 p.m. the following day.[56]

[54]JSCSC CR/1903/2/8 Railway Exercise I, 3 February 1903. Variations of this exercise appear in the syllabus every year up to the First World War.
[55]JSCSC CR/1904/2/24, Staff Duties, 24 February 1904.
[56]JSCSC CR/1911/2/36 Railway Control Exercise II, 27 March 1911.

As the prospect of conflict with Germany loomed ever larger in British strategic considerations before 1914, the Staff College increasingly sought to provide the students with exercises that emphasised the interconnected nature of the modes of transport necessary for effective military operations. Camberley hosted a series of exchanges, joint lectures, coastal tours, and schemes that provided opportunities for students to work closely with Royal Navy officers on the challenges of embarkations, disembarkations, amphibious landings, and opposed re-embarkations.[57] This, and the examples discussed above, demonstrate that the Staff College presented its students with a range of practical exercises designed to make them consider the difficulties of moving a modern army. Whether by road or rail, by mule or motor lorry, by land or sea, those who graduated from Camberley and Quetta did so with a sound understanding of the capabilities and limitations of military logistics that would govern their future operations.

However, the content of the curriculum was not immune from criticism. Archibald Wavell, who graduated from Camberley in 1910, felt that the administrative component of the course was 'weak … especially supply and transport. It was never rubbed into us that all operations were entirely dependent on transportation'.[58] Alongside the criticism that the College's directing staff did not sufficiently extol logistics' importance, Arthur Green's chief complaint of the curriculum was that it was 'too academic'. He went on to explain that,

> At the Staff College they knew a lot about strategy and tactics, military history, reconnaissance work, and all that you might call the higher theoretical aspects of war, but it never occurred to them that *in war* it might be necessary to wash and de-louse a soldier's socks and clothes and to provide him with baths and changes of raiment … And not only one soldier, but hundreds of thousands. They hardly seemed to know there was such a thing called 'War

[57]NAM Maxwell 7807-25-7 diary entry 11 April 1906; Simon Batten, *Futile Exercise? The British Army's Preparations for War 1902–1914,* (Warwick: Helion, 2018), p. 73; Duncan, 'Military Education of Junior Officers in the Edwardian Army', p. 200. Similar exercises took place at Quetta, see Godwin-Austen, *Staff and the Staff College*, p. 251. Examples of the type of scheme assigned are JSCSC CR/1908/2/26, 27, 35, Combined Naval and Military Staff Tour, 23 March 1908; Embarkation Scheme, Southampton, 25 March 1908; Disembarkation Scheme (Second Tour), 16 May 1908.

[58]Quoted in Keith Jeffery, *Field Marshal Sir Henry Wilson: A Political Soldier,* (Oxford: Oxford University Press, 2006), p. 70.

> Administration'. The instruction at the Staff College was academic enough to leave out of consideration nearly all of those domestic but vital matters.[59]

While Green acknowledged that he learned 'such things as the organisation and functions of a field ambulance, a supply column and so on' at Camberley, it was not until he was immersed in the 'harder school of war' after 1914 that he felt appreciated what military administration really entailed.[60]

The lectures and exercises discussed above demonstrate the breadth and complexity of the education in logistics matters that was provided by the Staff College. However, Green's observation does pick up on the fact that the curriculum at Camberley contained two glaring omissions: scale and duration. By 1906, Major-General James Grierson was able to assert that 'a war in alliance with France against Germany appears to be within the bounds of possibility'. In the same document, he laid bare the difference between the 120,000 troops Britain (at that time) would be able to field and the French and German forces numbering three-and-a-half million and four-million men respectively. Upon his arrival at the Staff College in the same year, Wilson 'began to preach the likelihood of a European war' and increased the volume of teaching explicitly devoted to the subject.[61] Yet no real thought was given to the possibility that the course of a Franco-German war might require a substantial increase in the size of the British Army. Grierson's memorandum merely stated that 'the soundest policy would perhaps be to devote our attention to keeping up the force … in a state of absolute efficiency in all respects' through the provision of drafts amounting to 'about 20,000 men every three months'.[62]

The Staff College's approach was no different. There is no evidence in the Camberley Reds of students being asked to consider the difficulties that would be associated with training large bodies of men, or of the daunting prospect of having to feed a million men on campaign overseas, or of having to ensure steady supplies of equipment along a vast line of communications. Henry Wilson himself was pro-conscription, yet his support for the policy did not extend beyond the provision of a lecture on the subject that caused 'a tremendous lot of chat' among the students.[63] Across Wilson's tenure as commandant, as well as those of his predecessors and successors during the period

[59]A. F. U. Green, *Evening Tattoo: The Story of a Soldier Who Gained Sixteen Decorations & Two Brevets & Was One of the Youngest Brigadier-Generals in France,* (London: Stanley Paul & Co., 1941), pp. 33–34.
[60]Ibid., p. 37.
[61]Jeffery, *Field Marshal Sir Henry Wilson*, p. 79.
[62]LHCMA Robertson 1/2/6 Memorandum upon the military forces required for overseas warfare, pp. 6–7.
[63]Jeffery, *Field Marshal Sir Henry Wilson*, pp. 75–77.

1903–1914, the imaginative horizons of the Staff College were limited to the operations of a force that never comprised more than the six infantry divisions, cavalry division, and supporting units earmarked for the British Expeditionary Force.

The students' deliberations on the question of how that force would be deployed were similarly circumscribed. The so-called 'Belgian scheme' presented to the Senior Division in 1908 presented a scenario in which Germany and France had commenced mobilisation on 21 November, and war had been declared two days later. The students' first task was to 'prepare a memorandum setting forth [the General Staff's] views as to the most effective means of employing the British Expeditionary Force' once its mobilisation was complete on 26 November.[64] Five days later, the students received the second exercise linked to the scenario. The document comprised a summary of the activities of the belligerents' forces between 23 November and 3 December, and an instruction for each syndicate to write orders and despatches to be issued to the British forces and the Secretary of State for War respectively on 3 December.[65] There were no more exercises linked to the scheme, meaning that the students were concerned with their roles and responsibilities at the outbreak of a major continental war for just two weeks, a period in which the students were not tasked to consider such challenges as the exhaustion of stockpiles of critical materials, the need to conduct a lengthy retreat, or the movement of troops and goods around a theatre of operations choked by civilians fleeing from the front line.[66]

Consequently, it was only after August 1914 that,

> We learnt by real practical experience how to handle transport. This meant the combinations and permutations of the first and second line wagons, pack transport, train, corps and army echelons, and bus companies. It included light railways and broad gauge. All these had to be brought into use to transport troops, ammunition, supplies and all the unforeseen requirements of war at the shortest notice in any direction; over roads that had been cratered, were under shell fire, or in bad condition; roads that had to be traffic circuited and timed to avoid congestion and to allow of repairs.

[64]JSCSC CR/1908/2/76 Study of operations involving the employment of the British Expeditionary Force on the Continent of Europe, 23 November 1908.
[65]JSCS CR/1908/2/78 Belgian Scheme, Part II, 28 November 1908.
[66]On the BEF's experiences of these issues in 1914, see Hew Strachan, *The First World War: To Arms,* (Oxford: Oxford University Press, 2001), pp. 997–1001; Peter Hart, *Fire and Movement: The British Expeditionary Force and the Campaign of 1914,* (Oxford: Oxford University Press, 2015), pp. 148–179; Christopher Phillips, *Civilian Specialists at War: Britain's Transport Experts and the First World War,* (London: University of London Press, 2020), pp. 97–100.

> A good 'Q' officer must have an intimate knowledge of all of the above so that he can put his transport into operation in the best fashion without undue delay. This he cannot do without a great deal of practice. No book work can do more than give a grounding.[67]

In comparison to Nicholson's wartime experiences, even the most complex of scenarios considered within the walls of Camberley and Quetta appear quaint in their simplicity. Questions about transhipment, the integration of multi-modal delivery systems, or the creation and maintenance of efficient depots for myriad categories of stores and supplies – not to mention the challenges involved in maintaining lines of communication for sustained periods of time within proximity of the enemy – were not dwelt upon at the Staff College.

Furthermore, education in the fields of supply and transportation at the Staff College suffered due to the subject's reputation. As Thompson Capper, an officer with eight years' experience of teaching staff duties to officers (three of which were spent at the Staff College) admitted, 'it is … difficult to make them interesting. Staff Duties is not an interesting subject'.[68] Consequently, as Godwin-Austen recalled in the post-war history of the Staff College, those assigned to logistics duties at the outbreak of war were objects of pity.[69] For many, the disappointment of receiving a post on the lines of communication could be ascribed to the perception that administrative posts reduced an officer's opportunities for career enhancement. However, for some, such as the future Field Marshal Edmund Ironside, a posting to oversee the loading of machinery on board ships at Avonmouth Docks was 'not to his taste' as he felt it unsuitable for someone of his abilities. 'I can well remember my rage and despair at being given *such a pedestrian task*. I had been a Staff officer for nearly five years and had served with the Cavalry, Infantry and Transport, as well as with the Artillery … Surely one could have been given something more suited to one's attainments?'[70] Indeed, Ironside's previous experience and linguistic skills – he spoke seven foreign languages fluently – were impressive, and he did go on to achieve an independent command role by the end of the war. However, as noted by his grandson and biographer, Ironside's assigned role at Avonmouth was 'a vital job that needed doing by someone or other

[67]Walter Nicholson, *Behind the Lines: An Account of Administrative Staffwork in the British Army, 1914–1918,* (London: Jonathan Cape, 1938), p. 213.
[68]LHCMA Capper 2/4/4 Lecture delivered to Members of the Royal Military Society of Ireland, at Dublin, 29 February 1912, p. 2.
[69]Godwin-Austen, *Staff and the Staff College*, p. 262.
[70]Edmund Ironside, *Ironside: The Authorised Biography of Field Marshal Lord Ironside,* (Stroud: The History Press, 2018), p. 57. Emphasis added.

and was really no more degrading than the sorts of postings assigned to his classmates'.[71]

The temptation to concentrate on the glamour of command over the pedestrian mundanities of supply – and on battlefield tours and social events over 'details … thought to be petty and beneath the notice of the big-minded man' – has produced an incomplete picture of the Staff College's contribution to military education between the South African War and the First World War.[72] This article has demonstrated that the army did engage with the administrative requirements that underpinned the conduct of modern warfare before 1914. Through a detailed analysis of the curriculum delivered to students at the Staff College, it has shown that there was not 'too much emphasis on sport and games and too little emphasis on the basic administrative functions of staff officers'.[73] The British Army did talk logistics, and its vocabulary responded to the changing strategic environment in which it expected to be deployed.

Students were introduced to a broad range of the circumstances likely to confront an army on campaign, in scenarios that captured the breadth of potential operations the British Army of the time was liable to be called upon to undertake. The plurality of Britain's strategic interests meant that prospective staff officers and commanders had to be proficient both in their understanding of the operations of railway transport and their knowledge of pack mules' road space requirements. The Staff College's curriculum challenged them to engage with these means of communication and many more besides, through the production of written work and through participation in practical exercises that aimed to replicate as closely as possible the 'difficulties and disappointments which so frequently crop up in war … in the most unexpected way'.[74]

However, the Staff College's ability to accurately recreate the specific challenges of 1914–1918 was heavily circumscribed both by the conceptual timidity of the army itself, and the wider organisational and political constraints of the society it existed to protect. As late as 1913, when the location and identity of Britain's most likely opponent in a major war had clearly been recognised – and discussions as to how the threat should be confronted had been ongoing within and beyond the Staff College for many years – the army's system of supply remained 'based on our experience of warfare in less civilized countries where everything has to be got from a remote oversea base', and the army itself remained miniscule in comparison to the gigantic

[71]Ibid., p. 58.
[72]William Robertson, *From Private to Field-Marshal,* (London: Constable & Company, 1921), p. 175.
[73]Ian Beckett, Timothy Bowman and Mark Connelly, *The British Army and the First World War,* (Cambridge: Cambridge University Press, 2017), p. 28.
[74]IWM Documents 21220 Lecture by Sir William Robertson, 4 December 1912, p. 3.

armies assembled across the Channel.[75] To solve those challenges from 1914 onwards, the British Army was compelled to learn the hard way.

[75]Arthur Forbes, *A History of the Army Ordnance Services,* (London: Medici Society, 1929), p. 3.