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**Managing Deadlock: Organisational Development
in the British First Army, 1915**

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DECLARATION

I declare that this thesis has been composed solely by myself and that it has not been submitted, in whole or in part, in any previous application for a degree. Except where stated otherwise by reference or acknowledgement, the work presented is entirely my own.

Patrick Watt

25 August 2017

ABSTRACT

In terms of the British Army in the Great War, the study of whether or how the army learned has become the dominant historiographical theme in the past thirty years. Previous studies have often viewed learning and institutional change through the lens of the ‘learning curve’, a concept which emphasises that the high command of the British Army learned to win the war through a combination of trial and error in battle planning, and through careful consideration of their collective and individual experiences. This thesis demonstrates that in order to understand the complexities of institutional change in the Great War, we must look beyond ill-defined concepts such as the learning curve and adopt a more rigid framework.

This thesis examines institutional change in the British First Army in the 1915 campaign on the western front. It applies concepts more commonly found in business studies, such as organisational culture, knowledge management and organisational memory, to understand *how* the First Army developed as an institution in 1915. It presents a five-stage model – termed the Organisational Development Model – which demonstrates how the high command of the First Army considered their experiences and changed their operational practices in response. This thesis finds that the ‘war managers’ decision-making was affected by a number of institutional and personal ‘inputs’ which shaped their approach to understanding warfare. This thesis examines the manner in which new knowledge was created and collated in the immediate post-battle period, before studying

how the war managers considered new information, disseminated it across the force and institutionalised it in the organisation's formal practices, structures and routines.

In a broad sense, this thesis does three things. First, by examining *how* the army learned it moves beyond standard narratives of learning in the British Army in the Great War and highlights the complex interplay between personal and institutional learning processes. Second, by focusing on institutional change in the 1915 campaign, it sheds new light on an understudied yet crucial part of the British war experience. Finally, in creating the Organisational Development Model, it provides a robust platform on which future research can be built.

LAY SUMMARY

My thesis examines institutional change and organisational learning in the British First Army on the western front in the 1915 campaign. It employs concepts more commonly associated with Business Studies, such as ‘organisational culture’, ‘knowledge management’ and ‘organisational forgetting’, to understand how the First Army learned as an institution. Rather than focussing on *what* the institution learned, my thesis concentrates on *how* it learned from its experiences of battle. To do this, I studied the decision-making of key war managers, the methods used to create, collate and consider new knowledge, and the means the army used to disseminate and institutionalise relevant information across the force. My thesis presents the first model, termed the Organisational Development Model, which demonstrates how learning occurred in the British Army of the Great War. In doing so, it further demonstrates that concepts from outside the field of history can be used to gain a better understanding of conflicts in the past.

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MANAGING DEADLOCK: ORGANISATIONAL DEVELOPMENT IN THE BRITISH FIRST ARMY, 1915

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ABBREVIATIONS

AAQMG	Assistant Adjutant Quartermaster-General
BEF	British Expeditionary Force
BGGS	Brigadier-General, General Staff
BGRA	Brigadier-General, Royal Artillery
BM	Brigade Major
CAB	Cabinet Office
CAC	Churchill Archives Centre
CDS	Central Distribution Service
CGS	Chief of the General Staff
CQG	Grand Quartier General
CinC	Commander-in-Chief
CIGS	Chief of the Imperial General Staff
CRA	Commander of Royal Artillery
CRE	Commander of Royal Engineers
FAHQ	First Army Headquarters
<i>FSR</i>	<i>Field Service Regulations</i>
GHQ	General Headquarters
GOC	General Officer Commanding
GUSCD	Glasgow University Special Collections Department
IEFA	Indian Expeditionary Force 'A'
IWM	Imperial War Museum

LHCMA	Liddell Hart Centre for Military Archives
LUSCD	Leeds University Special Collections Department
MGGS	Major-General, General Staff
MGRA	Major-General, Royal Artillery
NAM	National Army Museum
NCO	Non-Commissioned Officer
NLS	National Library of Scotland
NWMS	National War Museum of Scotland
OR	Other Ranks
<i>psc</i>	<i>passed Staff College</i>
RA	Royal Artillery
RE	Royal Engineers
RFC	Royal Flying Corps
SS	Stationery Service
TNA	The National Archives
WO	War Office

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General Key for All Maps

Formation/Unit National Designators

Red	German	Gurkh	Gurkha Rifles
Blue	Allied	HLI	Highland Light Infantry
Alg	Algerian	HH	Hudson's Horse
BE	Belgian	Jats	Jat Regiment (India)
BR	British	JH	Jacob's Horse
CAN	Canadian	KDG	King's Dragoon Guards
DAB	Détachement d'Armée de Belgique	KEO	King Edward's Own Cavalry
FR	French	KOSB	King's Own Scottish Borderers
IND	Indian	L	Lancers
Bav	Bavarian	Leic	Leicester Regiment
Col	Colonial (French)	Linc	Lincolnshire Regiment
Erz	Ersatz	Middx	Middlesex Regiment
Gd	Guards (British or German)	Mon	Monmouthshire Regiment
Ldw	Landwehr	Norf	Norfolk Regiment
Res	Reserve	Northants	Northamptonshire Regiment
Ter	Territorial (French)	Queens	Royal West Surrey Regiment
		RB	Rifle Brigade
		RBks	Royal Berkshire Regiment
		RIR	Royal Irish Rifles
		RW	Royal Warwickshire Regiment
		RWF	Royal Welch Fusiliers
		SR	Scottish Rifles
		SH	Seaforth Highlanders
		SF	Sherwood Foresters
		Som LI	Somerset Light Infantry
		Suff	Suffolk Regiment
		SStaffs	South Staffordshire Regiment
		WY	West Yorkshire Regiment

British and Dominion Regiments

BW	Black Watch		
Border	Border Regiment		
CH	Cameron Highlanders		
Dev	Devonshire Regiment		
E Lancs	East Lancashire Regiment		
Essex	Essex Regiment		
Garh	Garwhal Rifles		
GH	Gordon Highlanders		

xxxxx



Army Group

xxxx



Army

xxx



Corps

xx



Division

x



Brigade

III



Regiment (FR/GE/US)

II



Battalion or Regiment
(BR only)

I



Company



Infantry



Cavalry/mounted



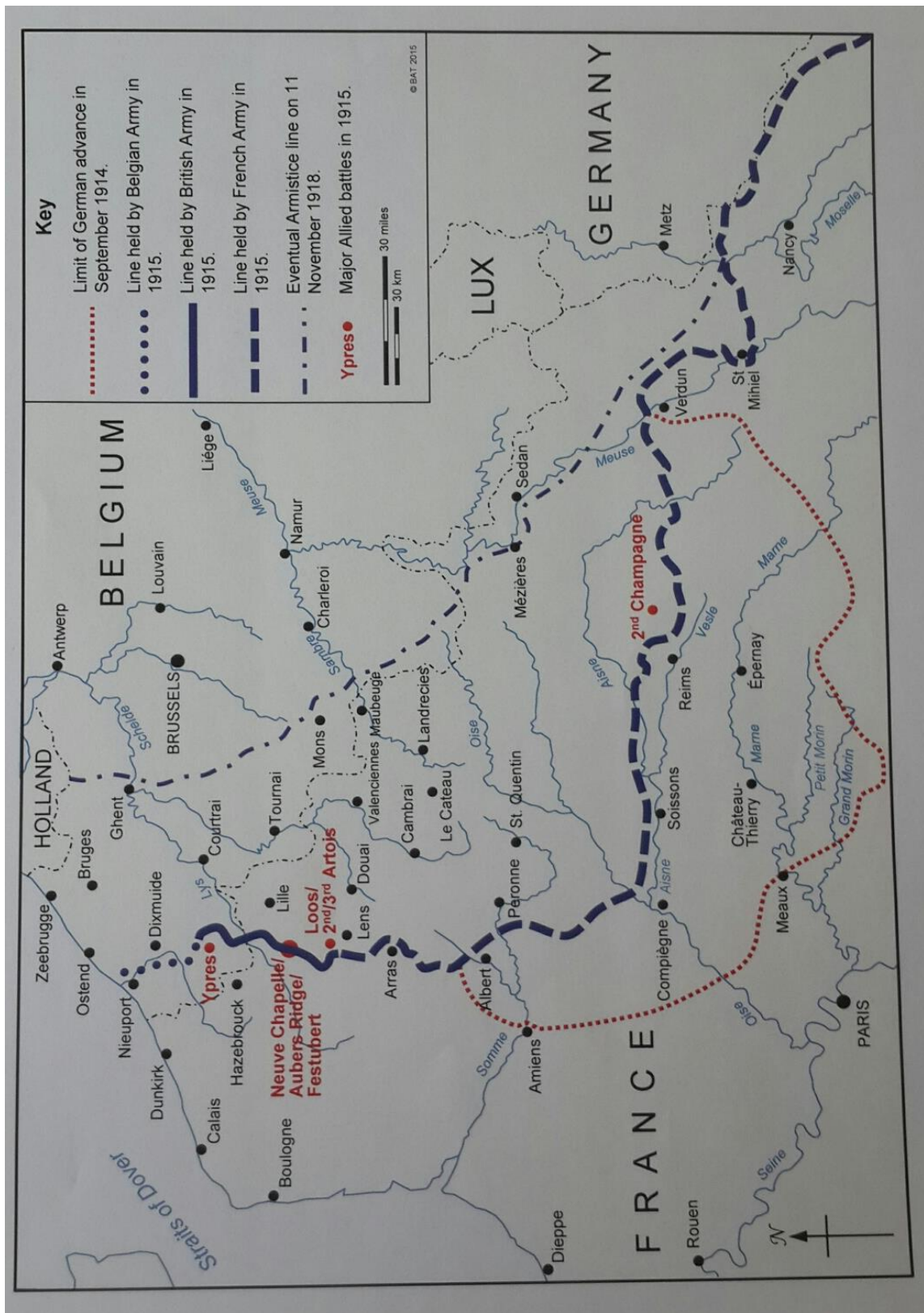
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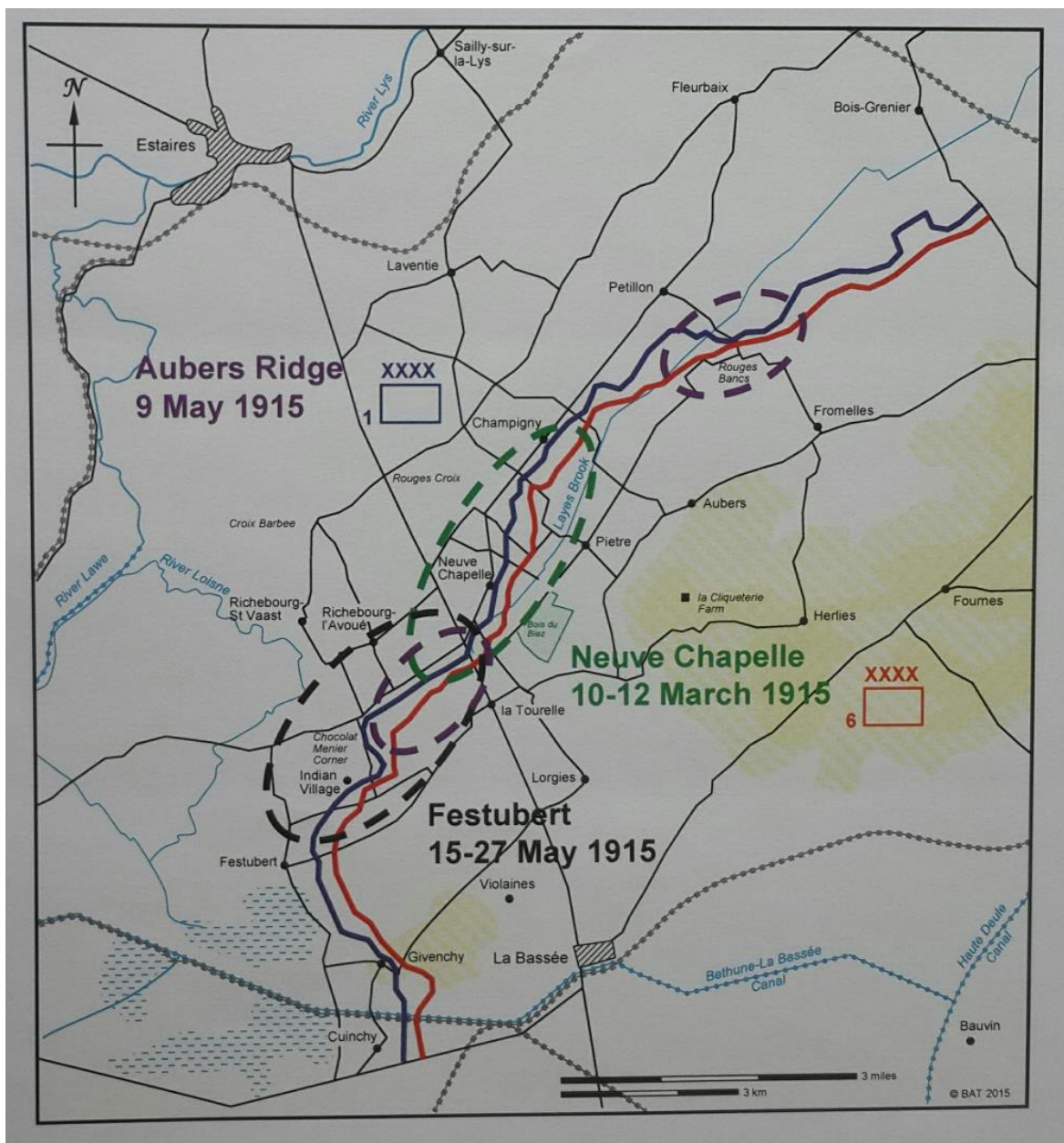
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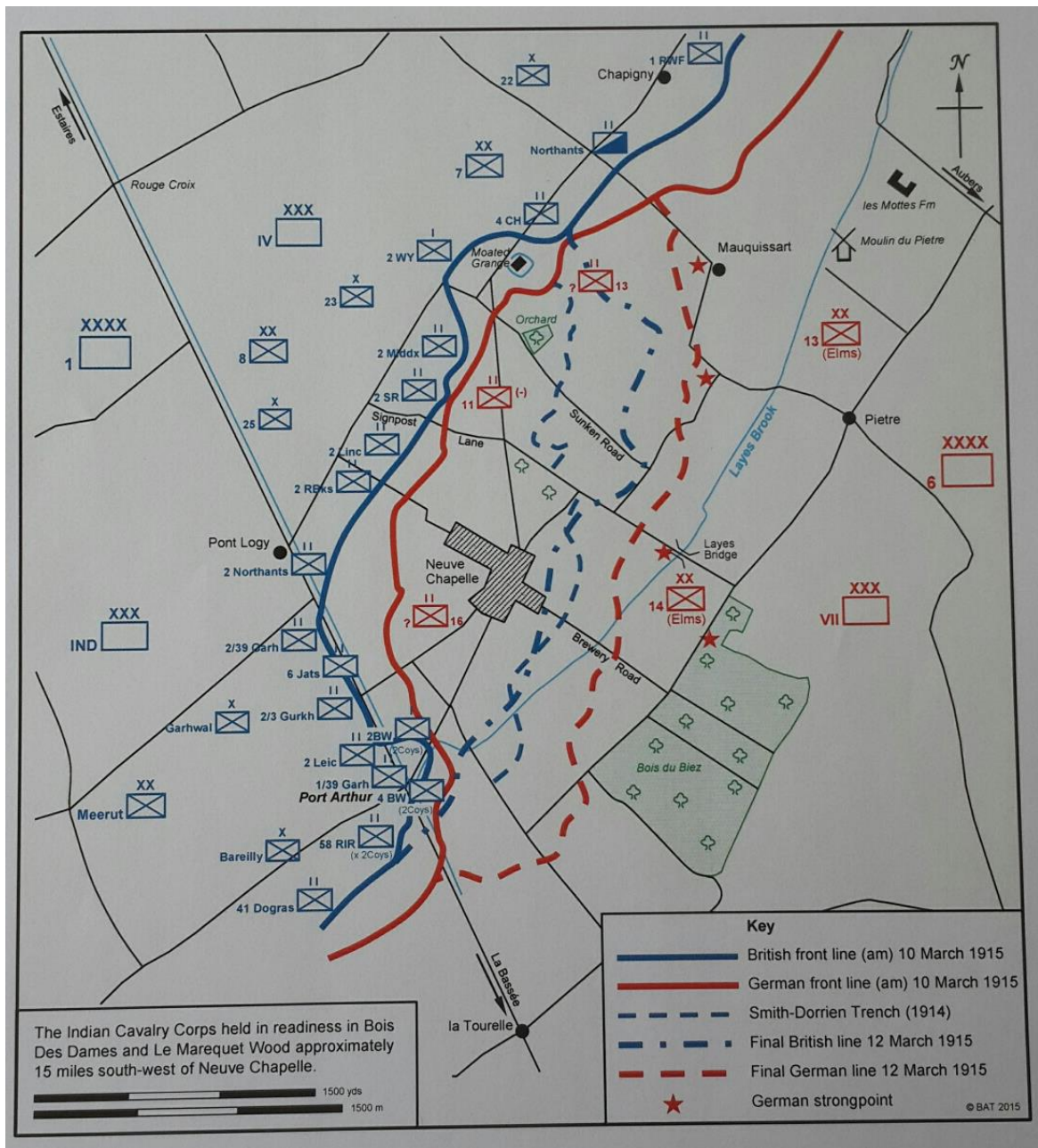
Mortar



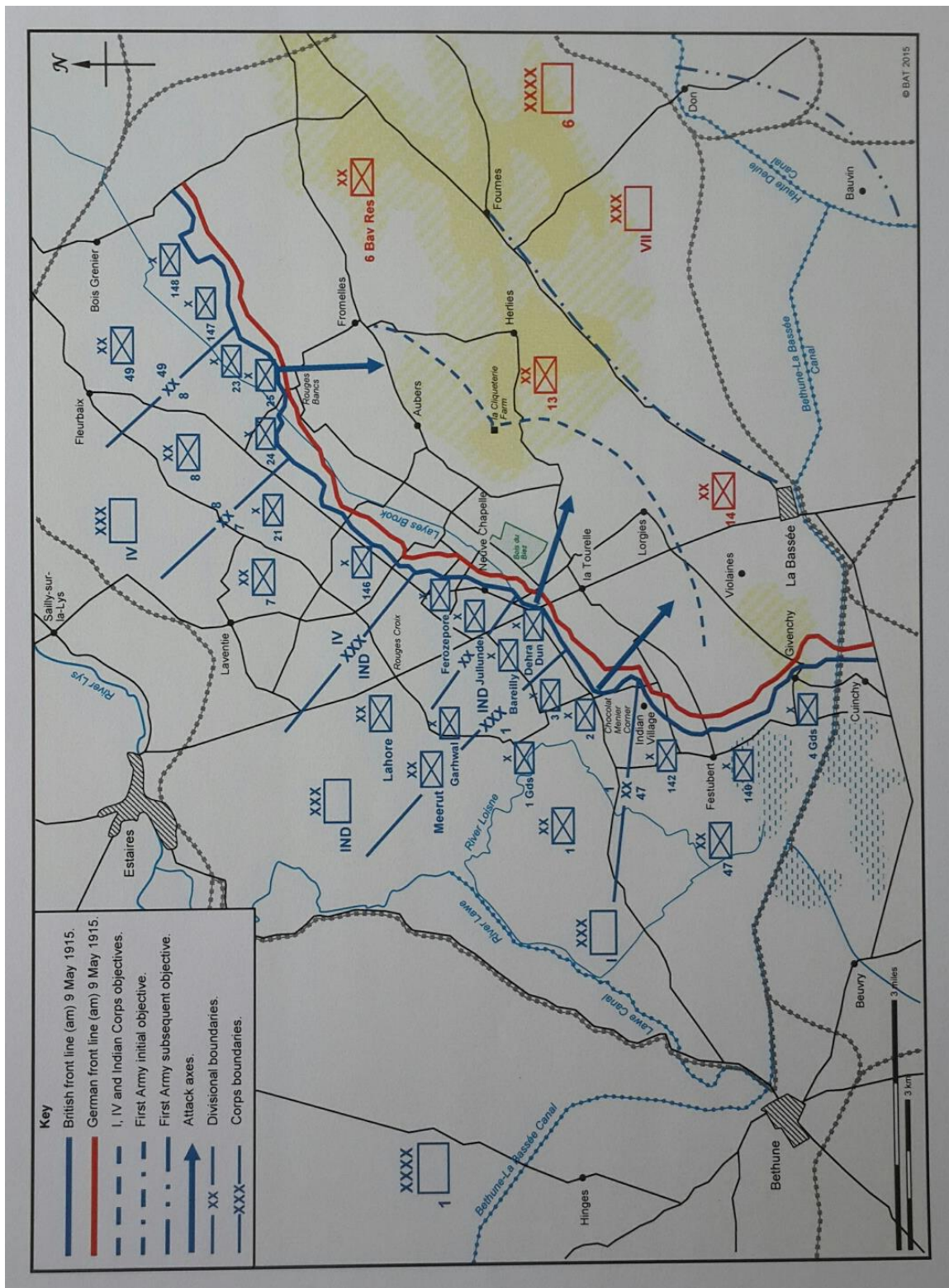
Map 1: The Western Front in 1915



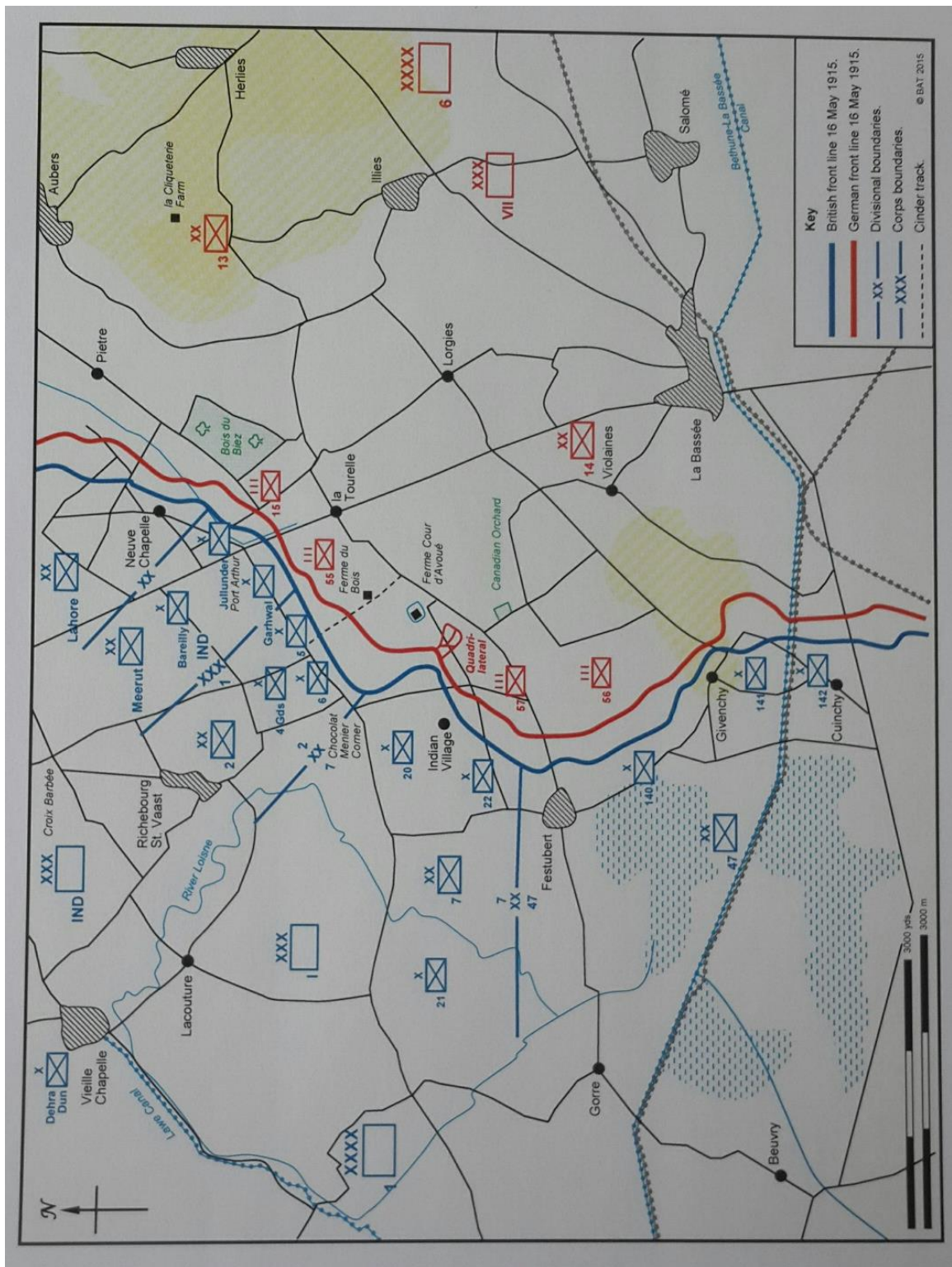
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Map 5: The Battle of Festubert, May 1915

Introduction: Learning as Institutional Change

Its very misfortunes and mistakes make 1915 particularly worthy of study. In remembrance of the final victory, we are apt to forget the painful and weary stages by which it was reached, and the heavy cost in our best lives.¹

Sir James Edmonds

Learning from experience is an important facet of organisational development in military institutions. In terms of the British military in the Great War, the study of whether or how the army learned has emerged as a key historiographical theme in the past thirty years.² Over the course of the war the British Army underwent a process of profound transformation, both in terms of an unprecedented increase in size and firepower, and in a development of its operational and tactical efficiency. Key to this increase in combat effectiveness was the learning process both of individual senior and staff officers, and of the army as an institution. That learning process saw the high command of the British Army learn better fighting techniques as the war progressed, through trial and error in battle planning and through reflection on their professional experiences, which, in turn, enabled officers to incorporate new tactics and technologies into their operational doctrine.³ While it is now generally accepted that a learning process occurred within the British Army during the Great War, the manner in which the

¹ Sir James Edmonds and Captain G.C. Wynne, *History of the Great War based on Official Documents by Direction of the Historical Section of the Committee of Imperial Defence: Military Operations – France and Belgium, 1915*, Vol.1 (London, 1927), xi [afterwards cited as *British Official History*].

² Heather Jones, 'As the Centenary Approaches: The Regeneration of First World War Historiography', *Historical Journal* 56.3 (2013), 862.

³ William Philpott, 'Total War', in Matthew Hughes and William Philpott (eds), *Palgrave Advances in Military History* (Basingstoke, 2006), 139; Jones, 'As the Centenary Approaches', 862.

army learned from its experiences and adapted its tactics in response to the strategic situation on the western front remains poorly understood.

Studies of the British Army in the Great War tend to describe the process of institutional change as a 'learning curve'. Advocates of this theory stress that the British High Command learned the techniques necessary to achieve operational victory despite external factors such as a shortage of essential war material, the inexperience of the pre-war British Army, the unprecedented nature of the strategic conditions on the western front, and the problems of fighting as the junior member of a coalition.⁴ This school of thought is countered by those who argue that the British Army's institutional weaknesses in terms of its organisational culture presented a barrier to effective learning.⁵ In these terms, the British senior officers were unable or unwilling to attempt to learn the lessons of modern warfare because of ingrained ideas on how battles should be fought. While the concept of the learning curve has proven useful in moving the debate on British operational performance away from the 'mud and blood' works of the twentieth century, its amorphous and ill-defined nature fails to explain how learning occurred within the institution. This thesis addresses this problem by drawing upon ideas prevalent in Business Studies, such as organisational culture theory and knowledge

⁴ See, for example, Gary Sheffield, *Forgotten Victory: The First World War: Myths and Realities* (London, 2002); Gary Sheffield, *The Chief: Douglas Haig and the British Army* (London, 2011); Paddy Griffith, *Battle Tactics of the Western Front, 1916-1918* (New Haven, 1996); Peter Simkins, *From the Somme to Victory: The British Army's Experience on the Western Front, 1916-1918* (Barnsley, 2014).

⁵ See, for example, Tim Travers, *The Killing Ground: The British Army, the Western Front and the Emergence of Modern War, 1900-1918* (London, 1987); Tim Travers, *How the War was Won: Command and Technology in the British Army on the Western Front* (London, 1992); Robin Prior and Trevor Wilson, *The Somme* (New Haven, 2006).

management, and on recent work in military innovation studies, to create a framework for better understanding institutional learning and adaptation in the British Army on the western front. The new framework advanced by this thesis is the first of its kind in the study of the British Army in the Great War and is summarised and illustrated by the ‘Organisational Development Model’ which is developed in the chapters that follow.

While the British Army of 1915 was comprised of many thousands of men, this thesis focuses on the decision-making of a relatively small number of officers who occupied senior command and general staff positions. The term used to describe these men in this thesis is ‘war managers’. It was first applied to the British Army in the Great War by Simon Robbins, who used it to describe those officers responsible for ‘managing the operations of the British Army’.⁶ Robbins used a broad definition of these officers, including ‘the principal senior command, administrative, medical and staff posts within the BEF’.⁷ This thesis takes a more narrow view and limits the term ‘war manager’ to those officers within the BEF structure who were responsible for actively planning offensive actions, and excludes those – such as the Adjutants-General, Quartermasters-General and Medical Officers – with more administrative roles. Furthermore, war management occurs at the political, strategic, operational and tactical levels of war. However, as this thesis is concerned with organisational development at the operational and tactical levels in the British First Army, it focuses on war managers who operated

⁶ Simon Robbins, *British Generalship on the Western Front: Defeat into Victory* (Abingdon, 2005), 188.

⁷ Robbins, *British Generalship on the Western Front*, 188.

within the First Army structure. The war managers included in this study are listed in appendix one.

Simon Robbins noted that the tempo of learning in the British Army on the western front split into four distinct phases: the opening phase of mobile warfare (August–November 1914); a period of stalemate as the army rapidly expanded (December 1914–June 1916); a period in which the army recognised the need for change and implemented new techniques and technologies (July 1916–August 1917); and finally a dramatic transformation of how the army considered and conducted operations (September 1917–November 1918).⁸ The subject of this thesis is the organisational development of the British First Army on the western front during the second of these phases. This corresponds with General Sir Douglas Haig’s period of command of the First Army (26 December 1914–19 December 1915). The First Army presents a useful subject for the study of learning in the wider British Expeditionary Force (BEF) in the 1915 campaign and analysis of its experiences aids understanding of the army’s performance and development over the wider course of the war. In an eight month campaign the First Army planned and executed five offensive actions: Neuve Chapelle (10–12 March); Aubers Ridge (9–10 May); Festubert (15–25 May); Givenchy (15–16 June); and Loos (25 September–13 October).⁹ The central aim of this thesis is to evaluate the effectiveness of the First Army in learning from its previous experiences and adapting its operational procedures accordingly. It addresses a number of questions. How did First

⁸ Robbins, *British Generalship on the Western Front*, 132.

⁹ For a narrative account of these operations see Edmonds, *British Official History: 1915*, Vols. 1-2.

Army's war managers attempt to evaluate their battles experiences? How were lessons learned and institutionalised in doctrine and training? What drove the learning process? Did the war managers apply sustained logic to the planning of offensive actions at the operational and tactical levels or did external constraints, including a lack of key war materials, limit the First Army's ability to learn? Processes summarised in the Organisational Development Model allow conclusions to be drawn by demonstrating how the First Army learned from its experiences in the 1915 campaign.

Despite the importance of the 1915 campaign in the overall development of the BEF it has received little of the scholarly attention which had been directed to other areas of the British military contribution to the Great War. For Gary Sheffield, 1915 is 'something of a forgotten year as far as the Western Front is concerned', a point echoed by Nick Lloyd who suggested that the campaign is 'noticeable only for its absence in the historiography'.¹⁰ In the fifteen years since Sheffield's comments there has been little academic reappraisal of the 1915 campaign and as a result elements of the BEF's operations on the western front in that campaign 'are almost entirely disremembered'.¹¹ The public perception of the First Army's offensive operations in 1915 has been coloured by Alan Clark's work, *The Donkeys*, in which the author charted the 'destruction of an army – the old professional army of the United Kingdom, that always

¹⁰ Sheffield, *Forgotten Victory*, 335; Nick Lloyd, 'With Faith and Without Fear: Sir Douglas Haig's Command of First Army During 1915', *Journal of Military History* 71.4 (2007), 1053.

¹¹ Spencer Jones, 'Introduction: The Forgotten Year', in Spencer Jones (ed.), *Courage without Glory: The British Army on the Western Front, 1915* (Solihull, 2015), xxiv.

won the last battle...[and was] machine-gunned, gassed and finally buried in 1915'.¹² Clark argued that the British high command were 'butchers' who were responsible for 'excesses of stubborn leadership' which turned their men into 'useless cannon fodder'.¹³ While Clark's polemic has been roundly criticised, the negative image he painted of the British high command has remained firmly entrenched in the British national consciousness. Indeed, the lack of study of this period of the war has tended to reinforce the standpoint that in 1915 the British war managers were the 'butchers and bunglers' of popular memory.¹⁴ As such, the campaign remains both neglected and denigrated in the study of the British experience in the Great War. Even the centenary commemorations have failed to stimulate widespread interest in the experience of the BEF in the campaign. While only three publications directly address the events on the western front, at least ten works have been published in the period 2013–2015 on the smaller invasion of Gallipoli.¹⁵ This thesis addresses this gap in the historiography.

Aside from the *British Official History*, the remainder of the historiography of the First Army's 1915 campaign can be split into three groups. The first takes the form of sentimental narrative accounts of the fighting, based on eyewitness testimony, which tend to reinforce the 'mud and blood' view of offensive operations. Philip Warner's,

¹² Alan Clark, *The Donkeys* (London, 1961), 11.

¹³ Clark, *The Donkeys*, 43, 57.

¹⁴ See, for example, John Laffin, *Butchers and Bunglers of World War One* (Stroud, 2003).

¹⁵ These works are Andrew Rawson, *The 1915 Campaign* (Barnsley, 2015); Paul Kendall, *The Battle of Neuve Chapelle: Britain's Forgotten Offensive of 1915* (Barnsley, 2016); and Jones, *Courage without Glory*, cited above. A further work which contains some essays on the 1915 campaign is Peter Liddle (ed.), *Britain and the Widening War, 1915–1916: From Gallipoli to the Somme* (Barnsley, 2016). On the Gallipoli campaign see, for example, Jenny Macleod, *Gallipoli* (Oxford, 2015); Edward Erikson, *Gallipoli: Command under Fire* (London, 2015); Metin Gurcan and Robert Johnson (eds), *The Gallipoli Campaign: The Turkish Perspective* (London, 2016).

The Battle of Loos resulted from the author's appeal in 1976 for survivors to provide their reminiscences of the battle and the result is an interesting, if rather disjointed, collection of personal recollections.¹⁶ In a more wide-ranging work, Lyn Macdonald also used personal accounts to highlight the BEF's experience of fighting throughout 1915.¹⁷ The second group saw amateur historians focus on particular battles of the campaign with which they typically had a family, local or regimental connection. Niall Cherry and Gordon Corrigan echoed the findings of Sir James Edmonds, the official historian, preferring to blame the high casualties on inexperienced troops and a lack of key war matériel, rather than flaws in the war managers' decision-making.¹⁸ These works were augmented by Robin Neillands' *The Death of Glory*, which sought to demonstrate that the 'generals of 1915 were trying to...make the old methods of war work in an entirely new situation'.¹⁹ Adrian Bristow took a more traditional view in his examination of the 'bloody fiasco' of the Battle of Aubers Ridge.²⁰ Bristow argued that the blame for the failure to capture the first objectives on 9 May 1915 lay at the feet of Haig, whose 'poverty of imagination', 'lack of compassion for his troops', 'stubborn nature' and 'over-confidence in his abilities' led to the deaths of thousands of British soldiers.²¹ While these works contribute to the general historiography they add little to the debate on learning and British operational performance in the 1915 campaign. The third group marked the entry of professional historians into the study of the British

¹⁶ Philip Warner, *The Battle of Loos* (London, 1976).

¹⁷ Lyn Macdonald, *1915: The Death of Innocence* (London, 1993).

¹⁸ Niall Cherry, *Most Unfavourable Ground: The Battle of Loos, 1915* (Solihull, 2005); Gordon Corrigan, *Loos 1915: the Unwanted Battle* (Stroud, 2006).

¹⁹ Robin Neillands, *The Death of Glory: the Western Front in 1915* (London, 2006), 7.

²⁰ Adrian Bristow, *A Serious Disappointment: the Battle of Aubers Ridge, 1915, and the subsequent munitions scandal* (London, 1995), 162.

²¹ Bristow, *A Serious Disappointment*, 162.

Army in 1915. Nick Lloyd's *Loos: 1915* was the first academic treatment of that battle, in which the author sought to place the Battle of Loos within the wider debate on the performance of the BEF on the western front.²² A recent collection of essays edited by Spencer Jones has examined the strategic, operational, tactical and logistical issues faced by the war managers in 1915 and pays particular attention to neglected areas of the campaign including analysis of the planning of the Battle of Neuve Chapelle, command during the Battle of Festubert, the development of the Royal Flying Corps, and the supply of ammunition to the front.²³ Sitting between the second and third groups is John Baynes' *Morale*, which examined the experiences of the 2nd Scottish Rifles in the Battle of Neuve Chapelle.²⁴ Baynes used that battle as a lens through which to establish the reasons why the battalion's morale was sustained even after devastating casualties. While Lloyd's, Jones' and Baynes' works are important in situating the events of 1915 into the wider debate on learning in the British Army, they make little attempt to qualify how that learning actually occurred.

The past twenty-five years have also seen a reappraisal of the career of General Sir Douglas Haig, and recent works have moved the examination of command away from personality-driven studies towards more critical analyses of Haig's decision-making as a war manager. Studies of Haig as a commander fall into two categories: those critical of Haig's performance on the one hand and more sympathetic, revisionist works on the

²² Nick Lloyd, *Loos: 1915* (Stroud, 2006).

²³ Jones (ed.), *Courage without Glory*.

²⁴ John Baynes, *Morale: A Study of Men and Courage - the Second Scottish Rifles at the Battle of Neuve Chapelle, 1915* (London, 1965).

other. Works in the first category include Gerard de Groot's influential studies which highlight the importance of Haig's pre-war career in shaping his command style, and J. P. Harris' *Douglas Haig and the First World War*, which asserted that Haig 'found it intellectually difficult to adjust to the unusual conditions that arose on the western front'.²⁵ Added to this is Nick Lloyd's essay on Haig's command of the First Army, which concluded that Haig's 'unrealistic pre-war ideas' and 'inflexible and dogmatic approach' to battle planning negatively affected the British Army throughout the 1915 campaign.²⁶ The second category of biographies takes a revisionist approach and argues that Haig was under-rated as a commander and, while he inevitably made mistakes, factors other than his decision-making also contributed to the high casualty rate and lack of operational success.²⁷ This school of thought argues that throughout the war, Haig and the rest of the British army underwent a profound learning curve which culminated in the successful Hundred Days campaign of autumn 1918.

Historiography of Learning in the British Expeditionary Force

The origins of the learning curve theory are unclear. Jay Winter and Antoine Prost identify the concept as being an argument developed by 'new' British military historians

²⁵ Gerard de Groot, *Douglas Haig, 1861–1928* (London, 1988); Gerard de Groot, 'Educated Soldier or Cavalry Officer?: Contradictions in the pre-war career of Douglas Haig', *War & Society* 4.2 (1986): 51-69; J. P. Harris, *Douglas Haig and the First World War* (Cambridge, 2008). A further work in this category is Denis Winter, *Haig's Command: A Reassessment* (London, 1991) although it does not cover Haig's command of the First Army in 1915.

²⁶ Lloyd, "With Faith and Without Fear", 1051-76.

²⁷ John Terraine, *Douglas Haig: the Educated Soldier* (London, 1963); Andrew Wiest, *Haig: Evolution of a Commander* (Washington DC, 2005); Gary Sheffield and John Bourne (eds), *Douglas Haig: War Diaries and Letters, 1914–1918* (London, 2006); Walter Reid, *Architect of Victory: Douglas Haig* (Edinburgh, 2006); Gary Mead, *The Good Soldier: the Biography of Douglas Haig* (London, 2007); Sheffield, *The Chief*; Gary Sheffield, *Douglas Haig: From the Somme to Victory* (London, 2016); Gordon Corrigan, *Douglas Haig: Defeat into Victory* (London, 2016).

in the 1980s and 1990s.²⁸ Heather Jones suggested that the concept was ‘pioneered, in particular, by Gary Sheffield’, while William Philpott asserted that ‘the origins of this concept are lost in the mists of time – it has been suggested that historians at Sandhurst (Paddy Griffith, Paul Harris and Gary Sheffield included) initiated it in the 1980s’.²⁹ In a recent development, Peter Simkins ‘admitted to being at least partly responsible for applying the term “learning curve” to the process of operational and tactical improvement in the BEF’.³⁰ While doubt remains over the specifics, there is a general consensus that the concept began in Britain around thirty years ago and had gained mainstream academic attention by the last years of the twentieth century. In 1999, Brian Bond suggested that many historians now ‘broadly incline to the positive interpretation of the British Army’s role and are more concerned with apportioning credit for the “learning curve” rather than denying its existence’.³¹ This point was echoed by Ian Beckett, who suggested in 2005 that the concept was ‘now generally accepted among historians’ and Sheffield who asserted in 2011 that ‘for the last few years historians have debated the extent, nature and speed of the learning curve’, instead of trying to establish whether or not it happened.³²

²⁸ Jay Winter and Antoine Prost, *The Great War in History: Debates and Controversies, 1914 to the present* (Cambridge, 2005), 59, 75.

²⁹ Jones, ‘As the Centenary Approaches’, 862; William Philpott, ‘Beyond the “Learning Curve”’: The British Army’s Military Transformation in the First World War’, *Royal United Services Institute Analysis* 10 (November 2009), online www.rusi.org (accessed 25 May 2014).

³⁰ Simkins, *From the Somme to Victory*, xiv.

³¹ Brian Bond, ‘Introduction’ to Brian Bond (ed.), *Look to Your Front: Studies in the First World War by the British Commission for Military History* (Staplehurst, 1999), vii.

³² Ian F. W. Beckett, ‘Introduction’ to Ian F. W. Beckett and Stephen J. Corvi (eds), *Haig’s Generals* (Barnsley, 2005), 3; Gary Sheffield, ‘The Somme: A Terrible Learning Curve’, *BBC History Magazine* (1 July 2011), online, www.historyextra.com (accessed 2 April 2014).

By the early Twenty-First century, the study of the learning curve concept had gathered pace. Sheffield advanced the theory that there was more than one curve and these curves were, in fact, 'far from even'.³³ The theory of multiple curves is echoed by Simon Robbins who identified separate processes in leadership, staff work, training, tactics and operations.³⁴ Recent research undertaken by William Stewart adds that while the concept of the learning curve is useful to describe the process of improvement in a macro sense, it fails when specific formations or actions are examined.³⁵ The wider theory is not without its detractors; Sir John Keegan dismissed the idea that a learning curve occurred, and suggested in 1999 that studies by 'young military historians' into infantry formations and tactics were 'a pointless waste'.³⁶ While Keegan was not advocating a return to the blinkered views of Alan Clark, he was correct to suggest that there was no one overarching solution to understanding the development of warfare on the western front.

The concept of the learning curve has proven a popular tool in understanding the operational performance of individual army formations at different levels of command. The first attempt at gauging the performance of individual British units was the Imperial War Museum's SHLM Project which sought to evaluate all the British infantry divisions

³³ Gary Sheffield, 'British High Command in the First World War: An Overview', in Gary Sheffield and Geoffrey Till (eds), *The Challenges of High Command: the British Experience* (London, 2003), 23.

³⁴ Robbins, *British Generalship on the Western Front*, 132.

³⁵ William Stewart, 'When the Learning Curve Falls: The Ordeal of the 44th Battalion, 25 October 1916', *British Journal of Military History* 2.3 (July 2016): 25-46.

³⁶ Sir John Keegan, *The First World War* (London, 1999), 315.

on the western front against a pre-determined set of criteria.³⁷ The aim of the project was to demonstrate that the British Army did undertake a learning curve and that units steadily improved as the war progressed, however, the project was wound up before conclusions could be drawn.³⁸ In a similar study, Peter Simkins examined 966 divisional attacks made in the Hundred Days campaign in 1918 and concluded that the BEF had seen an overall improvement in terms of quality of leadership and small arms tactics by the final campaign of the war.³⁹ These initial attempts at empirical analysis of operational performance were followed by a succession of dedicated divisional studies which charted the progress of a single infantry division through its war experiences. Kathryn Snowden's study found that the 21st Division had improved in terms of performance as the war progressed but concluded that a number of variables including weather and terrain meant that the division experienced an 'erratic learning curve'.⁴⁰ Similarly, Alun Thomas concluded in his study of the 8th Division that 'the evolution of [the] division's operational effectiveness was not a smooth process...and can be said to be a series of steps up or down'.⁴¹ Generally speaking, divisional studies undertaken in the past fifteen years have broadly inclined to support the idea that the units concerned improved their operational performance over the course of the war.⁴² Recent research

³⁷ John Lee, 'The SHLM Project: Assessing the Battle Performance of British Divisions', in Paddy Griffith (ed.), *British Fighting Methods in the Great War* (Ilford, 1996), 175-81. The project was named after the initials of the four contributors' surnames.

³⁸ Lee, 'The SHLM Project', 180.

³⁹ Peter Simkins, 'Co-stars or Supporting Cast?: British Divisions in the "Hundred Days", 1918' in Paddy Griffith (ed.), *British Fighting Methods in the Great War* (Ilford, 1996), 50-69.

⁴⁰ Kathryn Snowden, 'British 21st Infantry Division on the Western Front, 1914-1918: A Case Study in Tactical Evolution', unpublished MPhil thesis, University of Birmingham (2001), 143.

⁴¹ Alun Thomas, 'British 8th Infantry Division on the Western Front, 1914-1918', unpublished PhD thesis, University of Birmingham (2010), 367.

⁴² See the bibliography for a list of theses as of April 2017.

conducted by Stuart Mitchell has built on these conclusions and shown that the learning process of the 32nd Division was a ‘complex interplay between effective structure, battle-wise lower ranks and good leadership’ and found that ‘there was no one set of prescribed bullet points for the BEF’s learning process’ at the divisional level.⁴³ Andrew Iarocci in his study of the 1st Canadian Division focussed on training as a means of evaluating learning in a particular formation. Iarocci concluded that, with regards to the Canadians, the idea of units ascending ‘a neat slope of progress over time from 1914 to 1918’ needed to be reconsidered and argued that the men of 1918 were not more or less capable than their predecessors, only better equipped.⁴⁴

While divisional studies are useful in understanding changes in operational performance in a single formation they do have their limitations. By necessity they are narrow in scope, providing detailed examinations of a key tactical unit of the BEF. As a result, these studies can only pass judgement on a fraction of the wider British Army. A further problem lies in the lack of separation of the performance of commanders from that of their formations. General Haig, for one, believed that the performance of a division was the reflection of its commander’s ability and that a failure to achieve objectives was the

⁴³ Stuart Mitchell, ‘An Inter-Disciplinary Study of Learning in the 32nd Division on the Western Front, 1916–1918’, unpublished PhD thesis, University of Birmingham (2013), 275.

⁴⁴ Andrew Iarocci, *Shoestring Soldiers: The 1st Canadian Division at War, 1914–1915* (Toronto, 2008), 354. Mark Osborne Humphries made a similar conclusion in an article from 2005, suggesting that there was as much continuity as change in the development of tactics and training in the 12th Canadian Brigade: see, Mark Osborne Humphries, ‘The Myth of the Learning Curve: Tactics and Training in the 12th Canadian Infantry Brigade, 1916–18’, *Canadian Military History* 14.4 (Autumn, 2005): 15-30.

result of a want of offensive spirit on the part of the divisional commander.⁴⁵ Modern divisional histories have also tended to highlight the importance of the commander in determining the success of operational performance. This approach leaves little room for recognition of the fact that parts of a division, or indeed any other army formation, could function at a level of effectiveness separate from that of their commander. Only one study has examined operational performance from the perspective of army command; Jonathan Boff's examination of the British Third Army in the Hundred Days campaign found that while some elements had reached a high state of operational effectiveness by late-1918 others lagged behind.⁴⁶ Boff blamed 'internal institutional constraints' such as a lack of uniform training, different styles of command and inconsistent dissemination of lessons learned as being responsible for differences in the level of effectiveness across the Third Army.⁴⁷ What has become clear from the study of learning at both the divisional and army levels of command is the fact that a lack of uniformity and standardisation of practice was still the norm at the conclusion of hostilities in 1918.

In 2008, scholars began to reassess the concept of the learning curve. Sheffield noted that the change in the British Army over the course of the war is 'more accurately described as a learning process', however he failed to explain the difference between the

⁴⁵ John Bourne, 'Major General W.C.G. Heneker: A Divisional Commander of the Great War', in Matthew Hughes and Matthew Seligman (eds), *Leadership in Conflict, 1914–1918* (Barnsley, 2000), 60.

⁴⁶ Jonathan Boff, *Winning and Losing on the Western Front: The British Third Army in the Hundred Days, 1918* (Cambridge, 2012), 247.

⁴⁷ Boff, *Winning and Losing*, 247.

two terms.⁴⁸ The desire for a reappraisal was echoed by Sir Hew Strachan who criticised the learning curve as being too Anglo-centric an approach which put too much emphasis on Britain's role in the Hundred Days campaign.⁴⁹ The move away from the concept of a curve was also advocated by William Philpott who wrote that:

'curve' implies far too steady a parabola for what was in reality a more up-and-down, dynamic process of adjustment to new technologies, more sophisticated and flexible tactics, novel operational doctrines, complex logistics and fundamental change in the systems of command, control, communication and intelligence. Moreover, this dynamic encompassed competition with the enemy and symbiosis with an ally. Even after three decades of study, our understanding of the nature and process of the transformation of warfare between 1914 and 1918, and the British army's place therein, remains incomplete.⁵⁰

The concept of the 'learning curve' is now viewed as being too simplistic and has been partially replaced by the less rigid 'learning process' which emphasises the unevenness of the evolution of command and control on the western front.⁵¹ However, the most recent scholarship, while generally agreeing that the British army experienced a learning process over the course of the war, both in terms of individual commanders and formations, has acknowledged that the concept has its limitations. For Peter Simkins the term learning curve 'was mainly employed as a kind of shorthand to signify that one

⁴⁸ Gary Sheffield, 'Military Revisionism: The Case of the British Army on the Western Front', in Michael Howard (ed.), *A Part of History: Aspects of the British Experience of the First World War* (London, 2008), 1.

⁴⁹ Sir Hew Strachan, 'Memorial Differences', *Times Literary Supplement* 5510, 7 November 2008, 11. Jay Winter and Antoine Prost called the learning curve 'a British invention hardly evident in French and German writing on command in wartime'. See Winter and Prost, *The Great War in History*, 59-60.

⁵⁰ Philpott, 'Beyond the Learning Curve', www.rusi.org (Accessed 14 March 2014).

⁵¹ William Philpott, 'Military History a Century after the Great War', *Revue Francaise de Grand Britannique - French Journal of British Studies* XX-1 (2015), online, www.rfgb.revues.org (Accessed 16 April 2016).

rejected the “lions led by donkeys” and “butchers and bunglers” interpretations’ of British generalship.⁵² Stephen Badsey echoed this position by asserting that the term was a convenient way to describe a contentious issue which ‘has been taken much too literally and precisely’ and Jonathan Boff suggested that the idea of a learning curve is a ‘metaphor rather than a formal hypothesis which has been embraced by a wide range of historians who each apply it differently’.⁵³ While the concept has proven to be a useful tool in moving the debate over British operational performance in the Great War away from ‘mud and blood’ studies towards a dynamic, primary source-based examination, a more critical approach is now necessary to understand the intricacies of learning on the western front.

Two principal problems with the current historiography of learning in the British Army of the Great War remain.⁵⁴ First, the 1915 campaign on the western front sits uncomfortably in the learning curve/learning process debate and is often excluded in its entirety. Griffith suggested that ‘if we focus on the way the British fought their war between 2 July 1916 and 11 November 1918, we shall surely achieve a clearer vision of their tactical achievement - or lack of it - than if we cloud the issue’ with what came before, itself confined by Griffith to the ‘heroic passing of the old army in 1914’ or the ‘initiation rights suffered by the fledgling New Army on the “first day” of the Somme’.⁵⁵

For Simkins, the learning process began with the promotion of Haig to the position of

⁵² Simkins, *From the Somme to Victory*, xiv-xv.

⁵³ Stephen Badsey, ‘Ninety Years On: Recent and Changing Views on the Military History of the First World War’ in Ashley Ekins (ed.), *1918 Year of Victory: The End of the Great War and the Shaping of History* (Auckland, 2010), 383; Boff, *Winning and Losing*, 248.

⁵⁴ This point was also noted in Fox-Godden, ‘Putting Knowledge in Power’, 12.

⁵⁵ Griffith, *Battle Tactics on the Western Front*, 12.

commander-in-chief in December 1915, which suggests that it was Haig and his group of war managers at GHQ who acted as the catalyst for change, personally driving forward learning in the British Army.⁵⁶ This focus on learning in the period of Haig's command of the British Expeditionary Force abbreviates the learning process and neglects the valuable experiences drawn from the 1915 campaign which were influential in the battle planning process at later points in the war.

In addition to the exclusion of the 1915 campaign, the traditional ideas of a learning curve or learning process do not address how the army learned and as such are now inadequate in furthering the study of learning in the Great War. Recent work by Robert Foley has attempted to redress this balance by examining the belligerent armies as 'learning organisations'.⁵⁷ Foley demonstrated that the British Army war managers made use of civilian expertise found through their personal connections to drive forward institutional change, and cites the logistical work of Sir Eric Geddes and the development of the tank as evidence.⁵⁸ Jim Beach examined the writing of doctrine in the form of official publications produced by GHQ in the period 1917–1918 and concluded that the uneven method of doctrine creation prevalent at GHQ until mid-1918 'raises serious questions of the learning process within the BEF'.⁵⁹ Aimee Fox-Godden employed a series of case studies to examine how knowledge was transferred between

⁵⁶ Peter Simkins, 'Random Reflections', Douglas Haig Fellowship online www.douglashaigfellowship.org.uk accessed 10 May 2014.

⁵⁷ Robert Foley, 'Dumb Donkeys or Cunning Foxes?: Learning in the British and German Armies during the Great War', *International Affairs* 90.2 (2014), 281.

⁵⁸ Foley, 'Dumb Donkeys', 291-96.

⁵⁹ Jim Beach, 'Issued by the General Staff: Doctrine Writing at British GHQ, 1917-1918', *War in History* 19.4 (2012), 491.

the various British expeditionary forces and demonstrated the importance of the army's pre-war ethos in enhancing its ability to learn and adapt.⁶⁰ While these studies have been valuable in demonstrating how the British Army learned in the Great War, they largely concentrate on learning in the post-Somme period and again neglect the 1915 campaign in the same way as earlier studies. In order to understand how military institutions developed, studies of the British Army in the Great War should follow Foley and Fox-Godden's lead, and avoid becoming bogged down in ambiguous concepts such as the learning curve and learning process and adopt a more robust framework in order to move the debate forward. This thesis adds to the growing body of literature which seeks to look beyond the learning curve and critically examine how the British Army learned on the western front.⁶¹

A New Approach to Learning

Attempts to qualify how western armies learn have tended to focus on counter-insurgency operations in the period after the Second World War.⁶² This new branch of

⁶⁰ Aimee Fox-Godden, 'Putting Knowledge in Power': Learning and Innovation in the British Army in the First World War', unpublished PhD thesis, University of Birmingham (2015). See also, Aimee Fox-Godden, 'Beyond the Western Front: The Practice of Inter-Theatre Learning in the British Army during the First World War', *War in History* 23.2 (2016): 190-209.

⁶¹ It should be noted that this thesis was written before the publication of two works which may contribute substantially to the debate on learning in the British Army in the Great War: Aimee Fox-Godden's *Learning to Fight: Military Innovation and Change in the British Army, 1914–1918* and Ian Beckett, Mark Connelly and Timothy Bowman's *The British Army and the First World War* are eagerly anticipated.

⁶² See, for example, Theo Farrell, 'Improving in War: Military Adaptation and the British in Helmand Province, Afghanistan, 2006–2009', *The Journal of Strategic Studies* 33.4 (2010), 567-94; Sergio Catignani, 'Coping with Knowledge: Organizational Learning in the British Army?', *The Journal of Strategic Studies* 37.1 (2014), 30-64; Victoria Nolan, *Military Leadership and Counterinsurgency: The British Army and Small Wars Strategy since World War II* (London, 2012); John Nagl, *Counterinsurgency Lessons from Malaya and Vietnam: Learning to Eat Soup with a Knife* (New York, 2002); Sergio Catignani, 'Getting COIN at the Tactical Level in

research has been termed ‘military innovation studies’ and is heavily influenced by theories such as knowledge management and organisational learning which are more commonly found in business management studies.⁶³ Adam Grissom explained that military innovation has three constituent parts: first, an innovation must alter how formations operate in the field; second, the innovation must have significant scope and impact; and third, the innovation is equated with greater military effectiveness.⁶⁴ Within the wider purview of military innovation studies lie four main schools of thought which attempt to evaluate how armies learn. Barry Posen has been at the forefront of the school which suggests that military institutions innovate through the intervention of politicians, although his study focussed on interwar developments in France, Germany and Britain.⁶⁵ Posen argued that innovation occurs when military doctrine, or ‘the set of prescriptions...[which specify] how military forces should be structured and employed to respond to organised threats and opportunities’, is influenced by civilian policy-makers, often in conjunction with ‘maverick’ senior military officers.⁶⁶ The second school of thought in military innovation studies – that of inter-service rivalry spurring innovation – argues that the arms of the military compete for resources which then spurs innovation, the motivating factor being the receipt of additional resources.⁶⁷ This school is more focussed on conflicts post-1945 and is of limited use in studying the western front as

Afghanistan: Reassessing Counterinsurgency Adaptation in the British Army’, *The Journal of Strategic Studies* 33.4 (2012), 513-39.

⁶³ Adam Grissom, ‘The Future of Military Innovation Studies’, *Journal of Strategic Studies* 29, No.5 (2006), 906; see also Foley, ‘Dumb Donkeys’, 280.

⁶⁴ Grissom, ‘Future of Military Innovation Studies’, 907.

⁶⁵ Barry Posen, *The Sources of Military Doctrine: France, Britain and Germany between the World Wars* (Ithaca, 1984), 222-36.

⁶⁶ Posen, *Sources of Military Doctrine*, 13, 222-36; Grissom, ‘Future of Military Innovation Studies’, 909.

⁶⁷ Grissom, ‘Future of Military Innovation Studies’, 910-13.

army and navy operations in the Great War were largely kept separate. The third school argues that competition within the same branches of the military, for example the army, promotes innovation. Stephen Rosen presented the argument that innovation occurs when senior officers realise ‘a new theory of victory’.⁶⁸ Rosen argued that believers in a new theory – such as the British introduction of tanks to the battlefield in 1916 seek – to find mid-ranking officers to assist in the spread of the theory.⁶⁹ Those mid-ranking officers are rewarded by promotion, often within a new arm of the military which is created because of the new theory of victory, such as the British Tank Corps in 1917.⁷⁰

The final school of thought examines the organisational culture of military institutions. Victoria Nolan described organisational culture as being ‘the institutionalised set of beliefs which are the accumulation of learning from historical experiences, visionary leaders, and broader national and social cultures’.⁷¹ In other terms, organisational culture is a ‘pattern of shared basic assumptions that was learned by a group’ such as soldiers ‘and has worked well enough to be considered valid and...taught to new members as the correct way to perceive, think and feel in relation to those problems’.⁷² Organisational culture is ‘strengthened through policy and procedures, and is embodied and reproduced in current practice, doctrinal documents, training and organisational

⁶⁸ Stephen P. Rosen, *Winning the Next War: Innovation in the Modern Military*, (Ithaca, 1991), 20.

⁶⁹ Rosen, *Winning the Next War*, 20.

⁷⁰ Rosen, *Winning the Next War*, 20-1; Grissom, ‘Future of Military Innovation Studies’, 913-16. For a study of the British Army and the introduction of the tank see Rosen, *Winning the Next War*, 109-29.

⁷¹ Nolan, *Military Leadership*, 11.

⁷² Edgar Schein, *Organisational Leadership and Culture* (San Francisco, 2009), 17.

structure'.⁷³ Theo Farrell and Terry Terriff identified three ways in which an institution's culture can affect military innovation: first, senior leaders actively change the culture of the organisation to promote innovation; second, the culture is altered due to external shocks; and third, national militaries can change their culture through the emulation of other national militaries.⁷⁴ Recent research by Aimee Fox-Godden has demonstrated that the British Army's cultural ethos in the Great War enhanced its abilities to learn and adapt and influenced its approach to learning.⁷⁵ Far from being a rigid bureaucratic system, Fox-Godden highlighted how the British Army's flexible approach to overcoming organisational tensions encouraged change within defined institutional parameters.⁷⁶

According to this approach, innovation has three main characteristics. First, it is a top-down process initiated by senior political or military war managers with a view to altering an institution which is inherently resistant to change.⁷⁷ Second, the changes implemented fundamentally alter the structure and capabilities of the institution. And third, innovation largely occurs during peacetime learning when the difficulties caused by determining the success of change in a war zone are removed.⁷⁸ While innovation is

⁷³ Nolan, *Military Leadership*, 11.

⁷⁴ Theo Farrell and Terry Terriff, 'The Sources of Military Change', in Theo Farrell and Terry Terriff (eds), *Sources of Military Change: Culture, Politics, Technology* (London, 2002), 7-8; Grissom, 'Future of Military Innovation Studies', 916-19.

⁷⁵ Fox-Godden, 'Putting Knowledge into Power', 257-65.

⁷⁶ Fox-Godden, 'Putting Knowledge into Power', 261.

⁷⁷ Rosen, *Winning the Next War*, 2, and Posen, *Sources of Military Doctrine*, 226, in Grissom, 'Future of Military Innovation Studies', 919; Farrell, 'Improving in War', 591-2; Williamson Murray, *Military Adaptation in War: With Fear of Change* (Cambridge, 2011), 20.

⁷⁸ See for example, Kimberley Marten Zisk, *Engaging the Enemy: Organization Theory and Soviet Military Innovation, 1955-1991* (Princeton, 1993); Williamson Murray and Allan R. Millett (eds), *Military Innovation in the Interwar Period* (Cambridge, 1996).

a useful means of explaining change in military institutions, its characteristics do not reflect the learning process experienced by the British First Army in the 1915 campaign. This is made clear when evaluating Grissom's three indicators of military innovation mentioned earlier. In the first place, the 1915 campaign did not affect how the army functioned in the field. Warfare on the western front at the start of the Somme campaign in July 1916 was of the same nature as that of previous year; artillery bombardments paved the way for mass infantry assaults of entrenched positions with the main difference being the scale of the attacks undertaken. Second, the changes brought about by the 1915 campaign were relatively small in scope and were not uniform in nature; there were, for example, no wide-ranging shifts in operational planning methodology or tactics and no real institutional change was felt by the troops at the front. Third, the performance of the BEF on 1 July 1916, in which 60,000 casualties were sustained, albeit not by the First Army, suggests that there was no wholesale force-wide increase in military effectiveness.

The focus on top-down innovation led Grissom to call for further studies into the processes behind 'bottom-up' innovation, stemming from soldiers 'at the sharp end' rather than the military or political war management hierarchy.⁷⁹ This bottom-up process of implementing change has, in recent years, become known in the field of military innovation studies as 'adaptation'.⁸⁰ Sergio Catignani suggested that adaptation is the 'correction of errors leading to a change in prescribed practices' whereas

⁷⁹ Grissom, 'Future of Military Innovation Studies', 925.

⁸⁰ Theo Farrell, 'Improving in War', 567-94; Catignani, 'Coping with Knowledge', 31; Foley, 'Dumb Donkeys'; Murray, *Military Adaptation in War*.

innovation ‘results in the institutionalisation of new structures, processes, routines and, most importantly, new conceptual and normative constructs within the organisation as a whole’.⁸¹ Robert Foley agreed that in the process of adaptation learning is incremental, minor in scope, and not as radical as that of innovation.⁸² In simple terms, ‘wartime adaptation is a process of adjustment from the war you planned for to the war you have’.⁸³ Theo Farrell identified two distinct areas of adaptation: first, military organisations can refine their existing tactics, techniques or technologies; and second they can develop new ways of conducting operations.⁸⁴ In order to function effectively, armies need to employ both innovative and adaptive forms of learning although in times of war adaptation is the more common form of institutional change.⁸⁵

It terms of Business Management Studies, institutional change can be viewed in terms of ‘organisational learning’ although there is no widespread agreement on what that term constitutes.⁸⁶ Catignani suggested that there are three key stages of learning.⁸⁷ The first stage can be described as ‘data collection’, and involves the consideration of individual experiences, the creation and collation of formal after action reviews, and lessons learned reports requested from above. The second stage of learning is ‘interpretation’ or

⁸¹ Catignani, ‘Coping with Knowledge’, 31.

⁸² Foley, ‘Dumb Donkeys or Cunning Foxes?’, 280.

⁸³ Nina Kollars, ‘War’s Horizon: Soldier-led Adaptation in Iraq and Afghanistan’, *The Journal of Strategic Studies* 38.4 (2014), 529.

⁸⁴ Farrell, ‘Improving in War’, 570.

⁸⁵ Foley, ‘Dumb Donkeys and Cunning Foxes?’, 281.

⁸⁶ John Denton, *Organisational Learning and Effectiveness* (London, 1998), 16.

⁸⁷ James B. Thomas *et al.*, ‘Understanding “Strategic Learning”: Linking Organisational Learning , Knowledge Management and Sensemaking’, *Organization Science* 12.3 (May-June 2001), quoted in Catignani, ‘Coping with Knowledge’, 36.

‘the process by which meaning is given to information’.⁸⁸ This stage involves consideration of the material gathered in stage one and the communication of a shared understanding of the experience, be it a battle, trench raid, or logistical support. However, this stage is subject to the willingness of units or commanders to process, accept and act on that information. The final stage in the process is a new response to a specific problem.

Models of organisational learning tend to be limited to ‘formal’ learning systems within the military hierarchy. Recent studies have shown that ‘informal learning’ also plays a crucial role in the development of military institutions.⁸⁹ While Catignani noted the importance of social networks in promoting informal learning, Fox-Godden adopted a broader definition by describing it as being a highly personalised practice which is based on individual experience and is often unintended and opportunistic in nature.⁹⁰ Indeed, informal learning can be equated with low-level information sharing which contrasts with the more structured and organised, centrally-driven formal learning processes such as the provision of training courses. In the context of the British Army in the Great War, Foley has suggested that while the German Army made excellent use of formal learning procedures, the British were more effective at using informal learning processes to tackle *ad hoc* problems.⁹¹ Indeed, Foley argues that this arose due to the lack of a structure for collecting and disseminating new knowledge throughout the army. This

⁸⁸ Catignani, ‘Coping with Knowledge’, 36.

⁸⁹ Foley, ‘Dumb Donkeys or cunning foxes?’, 279-98; Catignani, ‘Coping with Knowledge’, 30-64.

⁹⁰ Catignani, ‘Coping with Knowledge’, 30; Fox-Godden, ‘Putting Knowledge into Power’, 5.

⁹¹ Foley, ‘Dumb Donkeys or Cunning Foxes?’, 291.

thesis will demonstrate that the challenge for the British First Army was to find ways to incorporate new knowledge produced by informal learning systems into the institution's organisational memory or 'knowledge repositories' – the intangible collection of individuals' learned experiences – from where it could be processed, disseminated and institutionalised.⁹²

'Adaptation' tends to be viewed as a vertical process whereby learning is driven either from the top-down at the instigation of the war managers or from the bottom-up from commanders at lower points in the army hierarchy. This involves the sharing of information up and/or down a pre-existing rigid hierarchal chain of command. Foley has, however, identified a third means of knowledge-transfer – horizontal innovation – through which information is passed laterally across the hierarchy.⁹³ This means of learning was driven by the staff and commanders of combat units at the front who sought to seek out and share their experiences with other similar formations without waiting for instruction from above.⁹⁴ Foley's study of the German Army in the period 1916–1918, demonstrated that horizontal innovation allowed for a quicker pace of change than the traditional vertical models, however doubts have been raised over the extent to which Foley's examples represent horizontal learning.⁹⁵

⁹² Catignani, 'Coping with Knowledge', 32.

⁹³ Robert Foley, 'A Case Study in Horizontal Military Innovation: The German Army, 1916–1918', *The Journal of Strategic Studies* 35.6 (2012): 799-827.

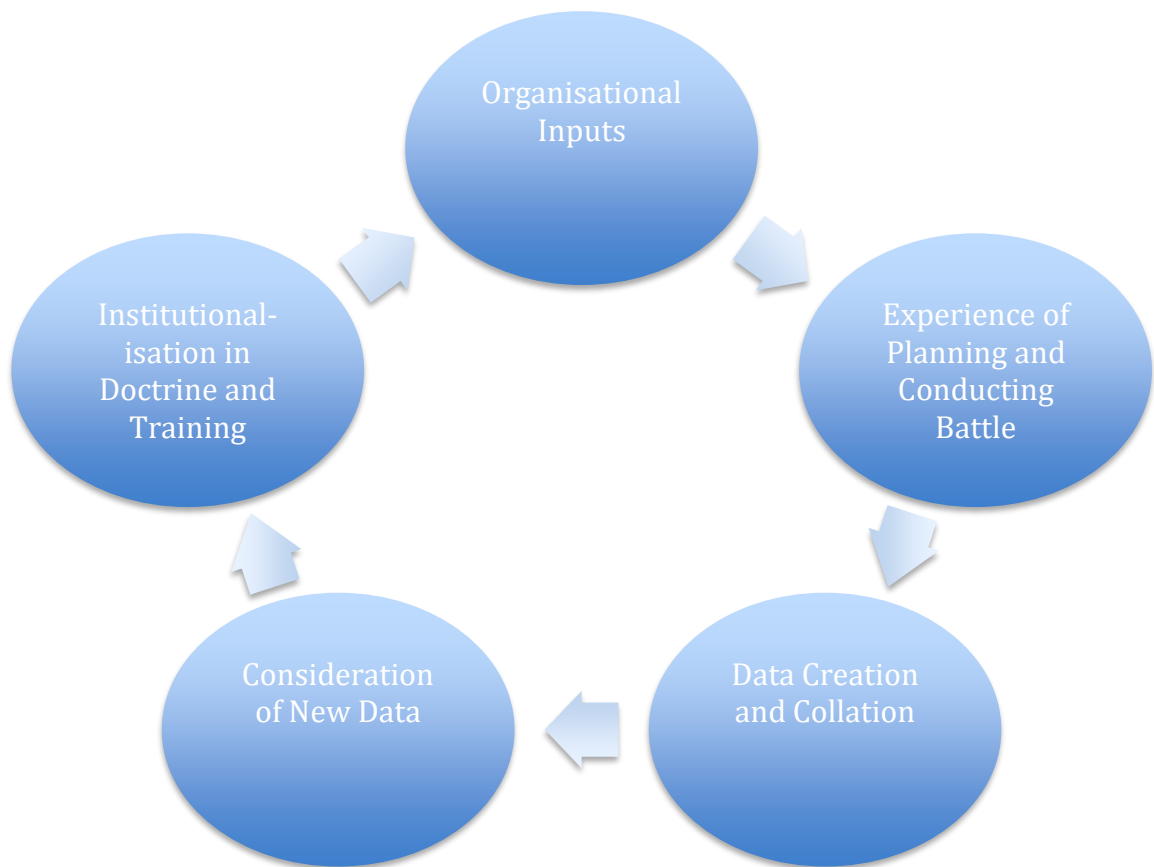
⁹⁴ Foley, 'Horizontal Military Innovation', 803.

⁹⁵ Fox-Godden, 'Putting Knowledge into Power', 9.

This thesis demonstrates that the concepts used to analyse Twenty-First century military institutions can be successfully applied to study of the Great War. In doing so, it looks beyond examining what the British First Army learned from its experiences in 1915 and establishes how its war managers learned. The framework produced by this thesis – the Organisational Development Model – illustrates the different stages of the First Army’s learning process in the 1915 campaign. The term ‘organisational development’ has been chosen over others such as ‘organisational learning’ to highlight the complex nature of institutional change in military units. While organisational learning is the study of how learning processes work within an institution, learning by itself is the process by which new knowledge is acquired.⁹⁶ As this thesis will show, learning was only one facet of organisational development in the British First Army in the 1915 campaign. Organisational development can be described as the process of formal or informal learning driven from the top-down, bottom-up and/or horizontally, which results in the creation, collation and dissemination of new knowledge, its *ad hoc* application, and its institutionalisation in doctrine and training by the organisation’s war managers. The end product of organisational development is an increase in combat effectiveness through the incorporation of lessons learned into both the immediate battle planning process and the wider institutional structure.

Figure 0.1: Basic Structure of the Organisational Development Model

⁹⁶ Mark Easterby-Smith and Marjorie Lyles, ‘The Evolving Field of Organizational Learning and Knowledge Management’, in Mark Easterby-Smith and Marjorie Lyles (eds), *Handbook of Organizational Learning and Knowledge Management* (Chichester, 2011), 1-4.



As this thesis will demonstrate, and Figure 0.1 illustrates, organisational development is best viewed as a five-stage process in which the stages are as follows: institutional inputs; experience of planning and conducting offensive actions; data creation and collection; consideration; and institutionalisation. The first stage recognises that organisational development in the First Army was subject to a number of long and short-term inputs which shaped war managers' decision-making processes. The experience of planning and conducting offensive operations, represents the second stage of the model.

The third stage involves the creation of new data and its collection with a view to identifying successes and failures in both the planning stage and in the operations themselves. The fourth stage sees the lessons identified in stage three considered by the war managers and accepted or rejected. In stage five, the lessons accepted by the war managers are institutionalised in doctrine and training and disseminated across the organisation. Simultaneously, those lessons are incorporated into the war managers' body of knowledge gained through experience – a crucial organisational input – and are used on an *ad hoc* basis to plan the next offensive.

Sources

Despite drawing on concepts which originate outside military history, this thesis uses traditional historical research methods to gather evidence from primary sources and uses them to ask new questions of the British experience in the 1915 campaign. The majority of primary sources used in this thesis have been drawn from the collections of The National Archives in London. In particular, War Office files such as the unit war diaries (WO95) and the papers of the military headquarters (WO181) provided much of the material analysed. Each unit from the General Staff at General Headquarters down to individual infantry battalions and artillery brigades kept a war diary which detailed the movements and operations of the unit. These diaries vary in quality depending on the author, typically the battalion adjutant or, for higher-level formations, an officer of the General Staff. In some cases only the briefest of details are recorded while other files contain not only the war diary itself but operational orders, draft plans of attack, maps, correspondence, after-action reports and other official documentation. The

official War Office papers are complemented by a wealth of testimony from private individuals in the form of diaries, letters and other personal papers which illuminate both the decision-making process and the wider experience of the 1915 campaign. Many relate to learning, training and leadership at low levels of the First Army structure, whereas others were written by the First Army war managers and present invaluable information on the function of command: for example, the papers of Field Marshal Sir John French and General Henry Horne are held at the Imperial War Museum; those of the Chief of Staff, Sir William Robertson and Major-General Sir Thompson Capper at the Liddell Hart Centre for Military Archives at King's College in London; the papers of General Sir Henry Rawlinson are split between the National Army Museum and Churchill College, Cambridge; and those of General Sir Douglas Haig at the National Library of Scotland in Edinburgh.

The diary of General Haig, the commander of the First Army in 1915, is a controversial document. Three versions of the diary are in existence. The first version was written by hand at the front; the second is a carbon copy of the first to which Haig made minor adjustments; and the third is a slightly revised version which was typed up in the post-war period.⁹⁷ The post-war typescript diary has been seen as 'Haig's attempt to re-write history to his own advantage' however, close inspection of the two main versions of the diary reveal that there were few significant changes and no omissions relating to the

⁹⁷ For a thorough analysis of the controversies surrounding Haig's diaries see Sheffield and Bourne, *Douglas Haig: War Diaries and Letters*, 2-10.

period of his command of the First Army.⁹⁸ With this in mind, this thesis used the typescript version of the diary and its substantial accompanying papers. Naturally, there are weaknesses in the use of personal testimony. Letters, diaries and war memoirs present three different views of the events they describe. Letters home from the front give the ‘purest, most unmediated view of war’ in which the boredom of trench life and the excitement of battle is reported to those at home.⁹⁹ As the author and reader are one and the same, diaries of Great War soldiers tend to be more reflective than letters and often provide a more careful consideration of events. Finally, memoirs were often written up after the war and present ‘the remembered war that persists in the mind through a lifetime’.¹⁰⁰ Of course, memoirs could be written at any point following the war: Lieutenant Douglas Wimberley of the 1st Cameron Highlanders wrote his memoirs while convalescing at home during the later stages of the war, whereas Lieutenant Philip Christison of the 6th Cameron Highlanders waited until the late-1970s to commit his own recollections of his part in the war to paper.¹⁰¹ This raises questions of the possibility of finding genuinely truthful accounts and on the reliability of memory in constructing historical narratives. As Paul Fussell wrote, ‘it would seem impossible to write an account of anything without some “literature” leaking in’.¹⁰² Alistair Thomson expanded upon this, asserting that ‘the life story is, of course, never a perfect replay of

⁹⁸ Sheffield and Bourne, *Douglas Haig: War Diaries and Letters*, 6.

⁹⁹ Samuel Hynes, ‘Personal Narratives and Commemoration’ in Jay Winter and Emmanuel Sivan (eds), *War and Commemoration in the Twentieth Century* (Cambridge, 2000), 208.

¹⁰⁰ Hynes, ‘Personal Narratives and Commemoration’, 211.

¹⁰¹ National Library of Scotland, Papers of Major-General Sir Douglas Wimberley, Acc.6119 [afterwards NLS, Wimberley Papers], unpublished memoir, *Scottish Soldier*; Imperial War Museum, Private Papers of General Sir Philip Christison, Doc.4370 [afterwards IWM, Christison Papers], unpublished memoir.

¹⁰² Paul Fussell, *The Great War and Modern Memory* (Oxford, 2013), 187.

experience, but is recreated through language and is partial, selective and purposeful'.¹⁰³ Each letter writer, diary keeper and memoir author had their own reasons, motivations and expectations when compiling the sources used in this thesis and analysis of these sources reveals not only the participant's opinions on 'what really happened' but also provides written evidence of how they made sense of their experiences. To counter the weaknesses in personal testimony, this thesis has been consistent in using contemporary official primary sources to look to confirm soldiers' reminiscences.

A further problem in using both personal testimony and some official files is the reluctance of some authors to admit liability for failures on the battlefield. General Sir Douglas Haig, for example, does not admit any blame in either his private correspondence nor his personal diary for any of the defeats or limited successes in the 1915 campaign although he was keen to point out when he believed others to be at fault. Similarly, Lieutenant-General Sir Henry Rawlinson does not admit any failure in his command decisions even when presented with evidence that he was at fault. Preserving reputations was as important for war managers in the Great War as it was for individual units and formations. Both primary and secondary sources regarding the latter usually lay the blame for operational failure on other formations on the left or right of the unit in question.¹⁰⁴ As a result, both primary and secondary sources have been treated with caution and evidence corroborated.

¹⁰³ Alistair Thomson, 'ANZAC Stories: Using Personal Testimony in War History', *War & Society* 25.2 (October 2006): 3.

¹⁰⁴ Martin Middlebrook, *The Kaiser's Battle* (Barnsley, 2007), 257; Rawson, *The 1915 Campaign*, x.

Structure

This thesis is split into six chapters. The first chapter examines three factors – institutional structure, organisational memory, and the use of formal and informal knowledge-transfer frameworks – which were crucial in shaping how the First Army learned in the 1915 campaign but which sit outside the Organisational Development Model. This chapter demonstrates that the creation of the army level of command impeded organisational development by failing to consider who should take responsibility for the army’s professional development and by failing to establish a dedicated system for translating individual knowledge into institutional knowledge. This, coupled with the lack of a permanent corps structure, had important implications for the First Army’s organisational memory. The lack of guidance from above put the onus on divisions to consider their own experiences and assume the role of *ad hoc* learning organisations; a process which was hindered by the high casualty rate of units in the First Army, particularly among officers, which reduced the maximum potential to identify lessons and create new knowledge. Finally, the chapter demonstrates that war managers increasingly turned to informal methods of information sharing in lieu of a formal framework for data transfer. These methods were most apparent at the level of inter-allied knowledge-transfer where the British senior war managers took the lead from their French counterparts in sharing information horizontally across the armies.

Chapters two and three examine the organisational inputs which shaped the war managers’ decision-making processes; the experience of planning and conducting

offensive actions; and the methods they employed in data creation and collation, which form the first three layers of the Organisational Development Model. Chapter two asserts that organisational development at the operational level of war was subject to five inputs: the prevailing institutional doctrine; organisational ethos; knowledge gained through experience and instruction; and the immediate strategic constraints which dictated the availability of manpower and resources. Taken together, these present the paradigm in which war managers sought to make sense of their experiences and identify lessons. This chapter demonstrates that there were three main ways in which the war managers created and collated new operational knowledge: they could identify lessons themselves; they could request information from subordinate formations; or information could be passed to them from outside their own structure. Chapter three examines organisational development at the tactical level. It demonstrates that the war managers made significant attempts to learn from their experiences by altering the force structure to incorporate dedicated teams of bombers, tunnellers and machine-gunners. Furthermore, this chapter studies the generation of information by low-level units and formations and demonstrates that in some instances, information was transmitted up the army hierarchy without request from above. In this, it adds a fourth method to the third stage of the Organisational Development Model where new information was created and collated.

Chapter four acknowledges that organisational development in war is a human process and is driven by the actions of individuals in key management positions. In this, it highlights the importance of the war managers in promoting and inhibiting institutional

change. This chapter examines the war managers as a group and demonstrates how the composition of the First Army high command changed over the course of the campaign. It asserts that the creation and collation of new knowledge is only one facet of organisational development and in order for organisational development to take place, war managers had to consider and accept or reject that new information. While many studies of institutional change in the Great War focus on learning as a cumulative process, this chapter demonstrates that managing the loss of knowledge is equally as important in terms of organisational development. It finds that there were five main ways in which knowledge loss could happen: new information could be rejected outright as unchangeable; it could be identified but forgotten; it could be discarded but remained available for recall at a future point; it could be misinterpreted by war managers; and finally, it could be deliberately withheld from others through human agency.

Chapter five examines what the war managers did with new knowledge they had considered and accepted. In the short-term, newly identified and accepted lessons were used on an *ad hoc* basis and were applied to the subsequent battle planning process. In the longer term, this chapter finds that there were three main ways in which new knowledge was accepted, disseminated across the force and institutionalised into formal doctrine and training: the creation and dissemination of formal pamphlets and publications and informal ‘best-practice guidelines’; the creation of schools of instruction; and horizontal knowledge-transfer through job-shadowing and secondments. This chapter demonstrates that First Army war managers attached increasing importance to the dissemination of new knowledge – both written and practical – as the campaign

progressed, although was still no centralised knowledge-transfer system by its end. The mechanism for delivering training also developed markedly as the campaign progressed with a greater emphasis placed on mission-specific training appearing towards the end of the campaign. However, despite the war managers' awareness of deficiencies in transmitting battlefield lessons to units training at home, no attempts were made to rectify this situation. This led to a substantial knowledge gap between units at home and units at the front which itself had a knock-on effect on operational performance in the 1916 campaign.

Chapter six examines the legacy of the 1915 campaign. It does this in two ways. First, it studies the actions of the First Army in the 1916 campaign at Fromelles in July to evaluate the extent to which the lessons of the battles of 1915 were applied to later battle planning. It finds that while some lessons of the campaign were identified and applied, others were not. Indeed, the key determinant in whether a formation learned from its experiences was the personalities of the key war managers. Furthermore, the high turnover of units and staff within the First Army in the period November 1915–June 1916 makes a comparison with the First Army of the 1915 campaign difficult. Second, the chapter examines the subsequent actions of the First Army war managers from the 1915 campaign who went on to other management positions within the BEF hierarchy.

The conclusion draws these findings together and presents the complete model of how the First Army learned in the 1915 campaign. It conclusively demonstrates that the 'learning curve' concept which has dominated the British historiography of the Great

War for thirty years does not accurately describe the complex learning processes at work in the First Army in the 1915 campaign. In doing so, it rejects the conclusions of earlier historians who asserted that any meaningful learning process began with the Battle of the Somme in 1916. While the war managers failure to establish a formal system of knowledge creation, collation and consideration was a serious barrier to successful institutional learning, the largely informal processes at work – which have been discussed in this thesis – demonstrate the complexities of institutional change on the western front in the pre-Somme period. Furthermore, this thesis provides a platform for future studies of institutional change in the Great War and, by establishing and applying the Organisational Development Model, suggests a template against which other formations and campaigns can be analysed.

Chapter One

Analysing Frameworks for Organisational Development

Armies are more often ruined by dogmas springing from their former successes than by the skill of their opponents.¹

J. F. C. Fuller

At noon on 19 December 1915 General Sir Douglas Haig relinquished command of the British First Army and replaced Field Marshal Sir John French as the commanding officer of the British Expeditionary Force (BEF) on the western front. The previous campaign had seen little in the way of operational success; the fortified and entrenched German positions in northern France remained *in situ* and the strategic problems which defined the Great War on the western front continued. It is, then, surprising that the end result of a disappointing and costly campaign was promotion for the chief operational planner. Despite the lack of operational success, Haig had overseen the development of the First Army from a force of almost 93,000 officers and men on 4 January 1915 to over 285,000 officers and men on 14 November.² Much as the size of Haig's force had changed, so too had its composition. When the First Army was created in late-December 1914 it numbered some six British and Indian infantry divisions and one cavalry division; by the end of 1915, fourteen infantry divisions were under the control of First Army headquarters including regular army, Territorial Force, New Army and colonial formations.

¹ J.F.C. Fuller, 'The Tactics of Penetration: A Counterblast to German Numerical Superiority', *Journal of the Royal United Services Institution* 59 (July 1914), 389.

² National Library of Scotland, Papers of Field Marshal Sir Douglas Haig [afterwards, NLS, Haig Papers], Acc.3155/100, Typescript Diary, 4 January 1915, and Acc.3155.103, Typescript Diary, 14 November 1915.

This chapter seeks to address three main questions. First, how did the composition of the First Army change over the course of the 1915 campaign and what were the implications of those changes; second, how was the First Army's ability to learn affected by mounting battlefield casualties; and third, what system existed for data creation and collection, information sharing and knowledge-transfer, both within the First Army hierarchy and across the wider British and Allied war effort. The aim of this chapter is to provide the necessary context for the later analysis of the First Army's organisational development. The chapter is split into four main sections. The first section adopts a broad approach and examines the formation of the First Army and its change in size and composition over the course of the campaign, before considering the impact of those changes. The second section studies the impact of battlefield casualties on the First Army's ability to make sense of its experiences. The third and fourth sections acknowledge that the First Army did not exist in a command vacuum but as a constituent part of the larger British Expeditionary Force. As such, these sections examine the formal and informal methods of knowledge-transfer available to and used by the First Army, General Headquarters (GHQ) and the Second Army, and then between the British and their French allies.

Chad Serena's study of the US Army during the Iraq War demonstrated that 'knowledge-transfer is vital to the process of improving the learning capacity of an

organisation'.³ In its simplest form, knowledge-transfer is 'the means by which expertise, knowledge, skills and capabilities are transferred from the knowledge base...to those in need of that knowledge'.⁴ This suggests that the process of knowledge-transfer is linear with new knowledge gained through lessons learned being passed either vertically, as war managers seek to alter the operational practices of the constituent parts of their command, or horizontally as units share their experiences without waiting for direction from above, thus effecting change at the tactical level. However, the hierarchical structure employed by the British Army in the Great War was not designed to facilitate the smooth flow of knowledge or information, rather it was created with a view to establishing a means of effective command and control over a large group of soldiers. This chapter evaluates how the structure, organisational memory and frameworks for knowledge-transfer and information sharing adopted by the First Army developed over the course of the 1915 campaign.

The Formation and Development of the First Army in the 1915 Campaign

The structure of an organisation plays a crucial role in determining its institutional learning processes. Structure can impede or facilitate the ability of the organisation to adapt to change and it determines how knowledge and information is collated and

³ Chad Serena, *A Revolution in Military Adaptation: The US Army in the Iraq War* (Washington DC, 2011), 16.

⁴ The Innovation through Knowledge Transfer Organisation, quoted in Katarzyna Musial, Marcin Budka and Wieslaw Blysz, 'Understanding the Other Side: The Inside Story of the INFER Project', in Robert Howlett et al. (eds), *Innovation through Knowledge Transfer 2012* (Berlin, 2013), 2.

distributed throughout the organisation.⁵ This section examines the creation and expansion of the First Army in the 1915 campaign and highlights how the changes in organisational structure affected the First Army's organisational development. The decision to form two separate armies out of the BEF troops then in France and Flanders was taken after a meeting in London on 23 November 1914 between the Secretary of State for War, Lord Kitchener, and Lieutenant-General Sir Douglas Haig, then the commanding officer of the British I Corps.⁶ That the commanding officer of the BEF, Field Marshal Sir John French, was not included in these discussions is indicative of the informal nature of communication between British war managers in the early phase of the Great War, and provides an indication of the power politics which characterised the BEF in the 1915 campaign. Sir John French initially resisted the introduction of a further layer of command between GHQ and the corps in the belief that it would result in delays in communicating orders and would create 'an in-elastic organisation' over which his control would be limited.⁷ In short, French wished to remain a battlefield commander who would not delegate responsibilities unless absolutely necessary. Despite this, French tentatively acknowledged that the rapid expansion of the BEF would require some form of administrative change in the war-management hierarchy.⁸ His initial attempts to increase the number of divisions in each corps from two to three, a

⁵ Inocencia Maria Martinez-Leon and Jose Martinez-Garcia, 'The Influence of Organisational Structure on Organisational Learning', *International Journal of Manpower* 32.5/6 (2011), 537-66.

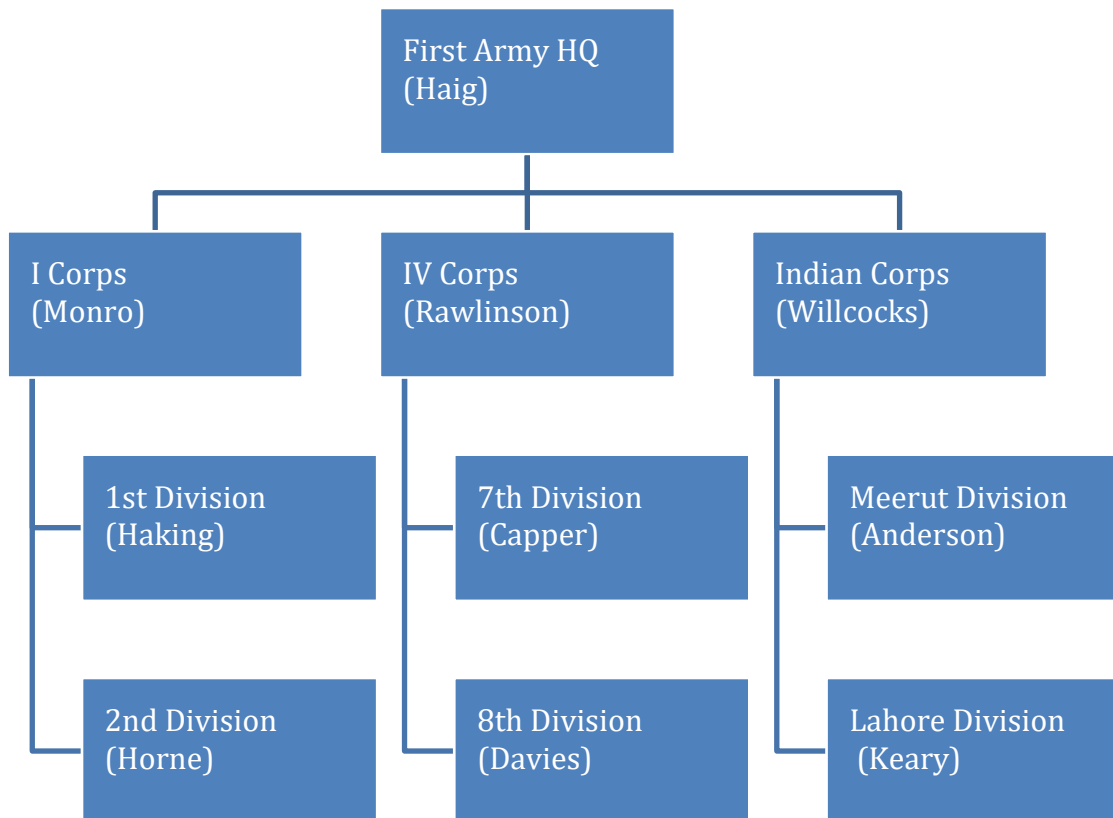
⁶ NLS, Haig Papers, Acc.3155/99, Typescript Diary, 23 November 1914.

⁷ Imperial War Museum, Private Papers of Field Marshal Sir John French [afterwards IWM, French Papers] JDPF 7/2 (2), Sir John French to Lord Kitchener, 1 December 1914. Richard Holmes, in *The Little Field Marshal*, 156, gives the reference number of this letter and that of 17 December as JDPF 7/2 (1), however they were located in File 2 as of 21 April 2015.

⁸ IWM, French Papers, JDPF 7/2 (2), French to Kitchener, 1 December 1914.

prospect which would see French retain personal control of the corps, were rejected by the War Office who acquiesced to Haig's desire for a more senior command position.

Figure 1.1: Structure of the First Army, January 1915



At a lunch for senior officers on Christmas Day 1914, Sir John French announced the split of the BEF into two armies: the First Army would be commanded by Lieutenant-General Sir Douglas Haig and would consist of the I, IV and Indian Corps; and the Second Army would be commanded by Lieutenant-General Sir Horace Smith-Dorrien

and would be comprised of the II, III and V Corps. The Cavalry Corps would remain under the command of GHQ. The changes came into effect at noon on 26 December. French viewed the implementation of the Army level of command as a measure to streamline administrative procedures, with commanders continuing to carry out the same operational roles.⁹ It was a view not shared by Haig, who sent his Deputy Quartermaster General (DQMG), Brigadier-General Percy Hobbs, to GHQ to present Haig's proposals that the First Army staff would have the responsibility of planning operations while corps and divisions would take charge of their own administration.¹⁰ While GHQ saw the armies sitting outwith the operational command structure, First Army headquarters thought that '[i]t is important to avoid turning the Army Headquarters into a "Post Office" pure and simple. GHQ will, therefore, deal direct with Corps on practically every subject except "operations"'.¹¹ It is unsurprising that the senior war managers were unsure of the role of an army headquarters; prior to the Great War staff officers in the British Army had no experience of operating in such a formation, and the roles of the staff of army headquarters, from Haig to individual junior staff officers were ill-

⁹ IWM, French Papers, JDPF 7/2 (2), French to Kitchener, 17 December 1914.

¹⁰ NLS, Haig Papers, Acc.3155/100, Typescript Diary, 26 December 1914.

¹¹ The National Archives [hereafter TNA], WO95/589, I Corps General Staff War Diary, Brigadier-General Sir John Gough, 'Notes on Staff Duties', 27 December 1914. This document has also been referred to as 'System by which Army Staff will carry out its work and to Regulate Relations between Corps, Armies and GHQ' by Nick Lloyd in "'With Faith and Without Fear", 1056, although Lloyd gives the date of the document as 26 December and its author as GHQ. Niall Barr refers to the document as 'Notes regarding Staff Duties' and gives the date as 28 December 1914. The document is signed by Brigadier-General Sir John Gough, the Chief of Staff to the First Army, with the date 27 December 1914. Barr's recording of the date is that which the document was received by the headquarters of I Corps - see Niall Barr, 'Command in the Transition from Mobile to Static Warfare, August 1914–March 1915', in Gary Sheffield and Dan Todman (eds), *Command and Control on the Western Front: The British Army's Experience, 1914–1918* (Stroud, 2004), 31. It seems that Lloyd was mistaken in both the date and the authorship of the document.

defined.¹² This lack of ‘job descriptions’ is a clear indication of the absence of decisive command from GHQ in late-1914 and early-1915, and occurred despite several opportunities for the roles to be clearly defined, first when Hobbs met with GHQ staff to discuss the system of staff work on 26 December, and then three days later when Haig met with Sir John French to discuss the general situation of the war.¹³ First Army headquarters assumed that ‘[n]o doubt with a few days experience things will right themselves’, but in practice the question of leadership roles and responsibilities dogged the BEF throughout 1915.¹⁴ The lack of clearly defined roles in the new structure had a knock-on effect on the First Army’s organisational development. The creation of a new layer of management did not vest anyone with the ultimate responsibility of managing the institution’s professional development and this, coupled with the absence of a formal army-wide learning framework, resulted in an inconsistent, piecemeal approach to learning.

The absence of a defined role for Haig and the First Army meant that he had the opportunity to create his own niche in the new hierarchy. This, combined with Sir John’s French’s admiration of Haig’s operational performance in the 1914 campaign, meant that in the event Haig was given considerable autonomy to conduct operations as he saw fit in the 1915 campaign. Underpinning this autonomy was the belief that the First Army and its commander were superior to their contemporaries, both friend and

¹² Ian Malcolm Brown, *British Logistics on the Western Front, 1914-1919* (Westport, 1998), 77; Lloyd, “With Faith and Without Fear”, 1054.

¹³ NLS, Haig Papers, Acc.3155/100, Typescript Diary, 26 December 1914 and 29 December 1914.

¹⁴ TNA, WO95/589, I Corps General Staff War Diary, Sir John Gough, ‘Notes on Staff Duties’, 27 December 1914.

enemy. It was a point which was continuously reinforced to Haig. In a meeting on 4 April 1915, Lord Esher, Britain's 'roving ambassador to France', told Haig of a conversation he had with an American who had met the German Kaiser in Berlin the previous winter.¹⁵ The Kaiser had reportedly said that 'the First Army Corps under Douglas Haig is the best in the world' and had emphasised Haig's leadership as the key factor.¹⁶ In a telephone call to congratulate Haig on the 'result' of the first day's fighting at Neuve Chapelle on 11 March, Sir John French admitted that 'the fine state of First Army was due to [Haig's]' influence.¹⁷

Much as the praise of First Army and its commander came from the top of the war management hierarchy, subordinate officers were also keen to lavish praise on the First Army and its commander in particular. Major-General Henry Horne, the inaugural commander of First Army's artillery and later commander of the 2nd Division, thought that Haig was 'the best of all the Commanders out here'.¹⁸ Lieutenant-General Sir Aylmer Hunter-Weston believed that Haig was the man 'to organise the nation for war', citing his 'power of clear thinking...power of organisation...study of [his] profession...experience of modern war...and strength of character'.¹⁹ There was some dissent over Haig's ability in battle, however, with one senior officer commenting that Haig had 'no imagination, and very little brains and very little sympathy', but this aside,

¹⁵ David French, *British Economic and Strategic Planning, 1905–1915* (London, 2013), 119.

¹⁶ NLS, Haig Papers, Acc.3155/101, Typescript Diary, 4 April 1915.

¹⁷ NLS, Haig Papers, Acc.3155/100, Typescript Diary, 11 March 1915.

¹⁸ IWM, Private Papers of General Lord Horne of Stirkoke [afterwards IWM, Horne Papers], Doc.12468, Diary, 30 December 1914.

¹⁹ Aylmer Hunter-Weston quoted in de Groot, *Douglas Haig*, 198.

Haig's reputation among his contemporaries in the BEF was overwhelmingly positive.²⁰ Supremely self-confident and continually bombarded with flattery despite First Army's lack of operational success in the 1915 campaign, Haig exploited the autonomy given to him by GHQ and manoeuvred himself to the command of the BEF. By the end of the 1915 campaign, for Haig at least, the First Army was a 'model of military management'.²¹

The First Army which Haig left in December 1915 was markedly different in both size and composition to that created a year before. On its creation, the First Army was comprised of three army corps – I, IV and the Indian Corps – which in turn each consisted of two infantry divisions. The infantry division was considered to be the 'real battle unit', capable of independent tactical action.²² The war establishment of a typical regular infantry division was some 18,000 men, which consisted of approximately 12,000 infantrymen and 4,000 gunners with the remainder being split among divisional engineers, medical and transport personnel, signallers and a small supporting cavalry unit.²³ Of Haig's troops, the British I Corps had crossed to France with the original incarnation of the BEF in August 1914 and had been his first command in the Great War. The I Corps was comprised of the 1st and 2nd Infantry Divisions; regular army formations which had been based in Britain at the declaration of war and had experience

²⁰ Henry Wilson quoted in Keith Jeffrey, *Field Marshal Sir Henry Wilson: A Political Soldier* (Oxford, 2006), 165, original italics.

²¹ de Groot, *Douglas Haig*, 197.

²² NLS, Haig Papers, Acc.3155/103, Typescript Diary, 7 November 1915.

²³ Andy Simpson, *Directing Operations: British Corps Command on the Western Front, 1914-1918* (Stroud, 2006), 1.

of peacetime operations as a combined force.²⁴ These units were familiar with Haig's operational methodology and he believed their presence in his army gave it a cutting edge:

I thought I had an advantage in having had 2 divisions under my command for over 2 years at Aldershot. We had tried to arrive at a common "doctrine", and my subordinate commanders realised the importance of discipline and had maintained it. This was the 1st Corps which eventually set the standard for the 1st Army in discipline, in system of command, and staff duties.²⁵

The I Corps had seen hard fighting throughout the 1914 campaign and had performed well, although its effectiveness had been eroded by its high casualty rate in battle during the retreat from Mons, fighting on the Aisne and Marne rivers, and during the First Battle of Ypres. The 2nd Division was, for Haig, a group of 'splendid fighting men' and who, by July 1915, 'were in a very highly efficient state'.²⁶ The 1st Division was regarded as a similarly effective formation, and gained plaudits for an aggressive counterattack undertaken on 1 February which cleared German troops from the village of Cuinchy.²⁷ The IV Corps consisted of the 7th and 8th Divisions and was created in October 1914 from units recently returned from overseas garrisons. Used to plug a hole in the British lines at the First Battle of Ypres, the 7th Division was 'battered almost out

²⁴ For brevity, when infantry divisions are mentioned they will be referred to as the 1st Division, 2nd Division, etc. When cavalry divisions are mentioned it will be clearly stated, for example, 1st Cavalry Division, etc.

²⁵ NLS, Haig Papers, Acc.3155/101, Typescript Diary, 7 June 1915.

²⁶ Haig, quoted in George Barrow, *The Life of General Sir Charles Carmichael Monro, Bart.* (London, 1931), 41; IWM, Horne Papers, Doc.12468, General Horne to Lady Horne, 25 June 1915.

²⁷ Michael Senior, *Haking: A Dutiful Soldier; Lt General Sir Richard Haking, XI Corps Commander, 1915-18, A Study in Corps Command* (Barnsley, 2012), 35.

of existence' in earning its nickname, 'the Immortal Seventh'.²⁸ Added to the four divisions of the I and IV Corps were two divisions of infantry (the Lahore Division and the Meerut Division) supplied by the Indian Army and organised as the Indian Corps.²⁹ On its arrival in France Haig thought that the Indian Corps 'was not altogether in an efficient state'; his view changed little throughout the campaign.³⁰ At the suggestion of the commanding officer of the Indian Corps, Lieutenant-General Sir James Willcocks, Haig authorised that each Indian infantry brigade was to be augmented by a battalion of British infantry as the native battalions 'were quite unable to face German troops'.³¹ In terms of absolute numbers, the divisions of the Indian Corps were under-strength when compared to their British counterparts, as Table 1.1 demonstrates.

Table 1.1: 'Return of Strength' of the First Army, 4 January 1915.

Corps	Division	Number of Officers	Number of NCOs and Men
I Corps	1 st Division	440	14,852
	2 nd Division	492	16,817

²⁸ Robin Prior and Trevor Wilson, *Command on the Western Front: The Military Career of Sir Henry Rawlinson, 1914-1918* (Barnsley, 2004), 14; Richard Olson, 'An Inspirational Warrior: Major-General Sir Thompson Capper', in Spencer Jones (ed.), *Stemming the Tide: Officers and Leadership in the British Expeditionary Force, 1914* (Solihull, 2013), 189-208.

²⁹ More correctly the Indian Corps was titled the Indian Expeditionary Force 'A', however contemporary sources within the First Army structure continually refer to the formation as 'the Indian Corps' and this thesis will use that name. Interest in the Indian Corps has increased recently; for important studies see Gordon Corrigan, *Sepoys in the Trenches: The Indian Corps on the Western Front, 1914-1915* (Stroud, 2006); and George Morton-Jack, *The Indian Army on the Western Front: India's Expeditionary Force to France and Flanders in the First World War* (Cambridge, 2014).

³⁰ NLS, Haig Papers, Acc.3155/98, Typescript Diary, 29 November 1914.

³¹ NLS, Haig Papers, Acc.3155/99, Typescript Diary, 20 January 1915.

IV Corps	7 th Division	501	17,997
	8 th Division	609	17,335
Indian Corps	Lahore Division	386	10,883
	Meerut Division	435	12,285
Total First Army		2,863	90,119

Source: NLS, Haig Papers, Acc.3155/100, Typescript Diary, 4 January 1915. It should be noted that the officers of the Lahore and Meerut Divisions were white British officers either of the Indian Army or attached to it from the regular British Army.

Experience of the 1914 campaign showed that more troops were required to defeat the German Army on the western front. The main issue surrounding the expansion of the First Army in the 1915 campaign was the proposed introduction of the New Armies then being raised in Britain under the guidance of Lord Kitchener.³² From the declaration of war on 4 August until 31 December 1914, 1,186,357 men volunteered to join either Kitchener's new armies or the Territorial Force (TF) and by the end of the following year a further 1,280,360 had enlisted.³³ The incorporation of New Army formations into the existing BEF structure proved problematic in the opening weeks of the 1915 campaign. While Kitchener advocated that his New Armies be sent to the BEF as complete formations, Sir John French, Haig, Smith–Dorrien and other senior British commanders on the western front favoured sending the new units out by battalions and brigades to be attached to experienced formations for a period of practical instruction in

³² For a comprehensive account of the creation of the new armies see Peter Simkins, *Kitchener's Army: The Raising of the New Armies, 1914-1918* (Manchester, 1988).

³³ War Office, *Statistics of the Military Effort of the British Empire during the Great War, 1914-1920* (London, 1922), 364.

trench warfare.³⁴ To put the views of the BEF to Kitchener, Haig drafted a paper entitled 'The Expansion of the Army in the Field' in which he advocated not only the gradual incorporation of the new armies to the existing BEF structure but also the addition of a third infantry division to each corps.³⁵ Haig proposed that one New Army brigade and a brigade from each existing division in the corps be joined to form an entirely new division rather than incorporating a complete inexperienced division. The effect of these proposed changes would be to enlarge the First Army from six divisions to nine. From this it is clear that Haig desired the expansion of his own command rather than allowing 'new formations with rather elderly commanders and inexperienced staff officers' to act at the same command level as his own First Army.³⁶ Haig got his wish and, as a result, the strength of the First Army trebled over the course of the campaign. Figure 1.2 demonstrates the overall increase in the strength of the First Army in 1915.³⁷

There were four ways in which the strength of the First Army increased over the campaign. First, at the battalion level, units received lightly wounded soldiers and men recovered from sickness along with drafts of reinforcements from regimental depots in Britain. Second, battalions or divisions of the Territorial Force were added to the strength of the First Army prior to the arrival of the New Army divisions from May 1915 onwards, which constitutes the third increase in strength. The final increase was

³⁴ Richard Holmes, *The Little Field Marshal: A Life of Sir John French* (London, 1981), 262; NLS, Haig Papers, Acc.3155/100, Typescript Diary, 4 January 1915.

³⁵ NLS, Haig Papers, Acc.3155/100, 'The Expansion of the Army in the Field', Typescript Diary, 11 January 1915.

³⁶ NLS, Haig Papers, Acc.3155/100, Typescript Diary, 4 January 1915.

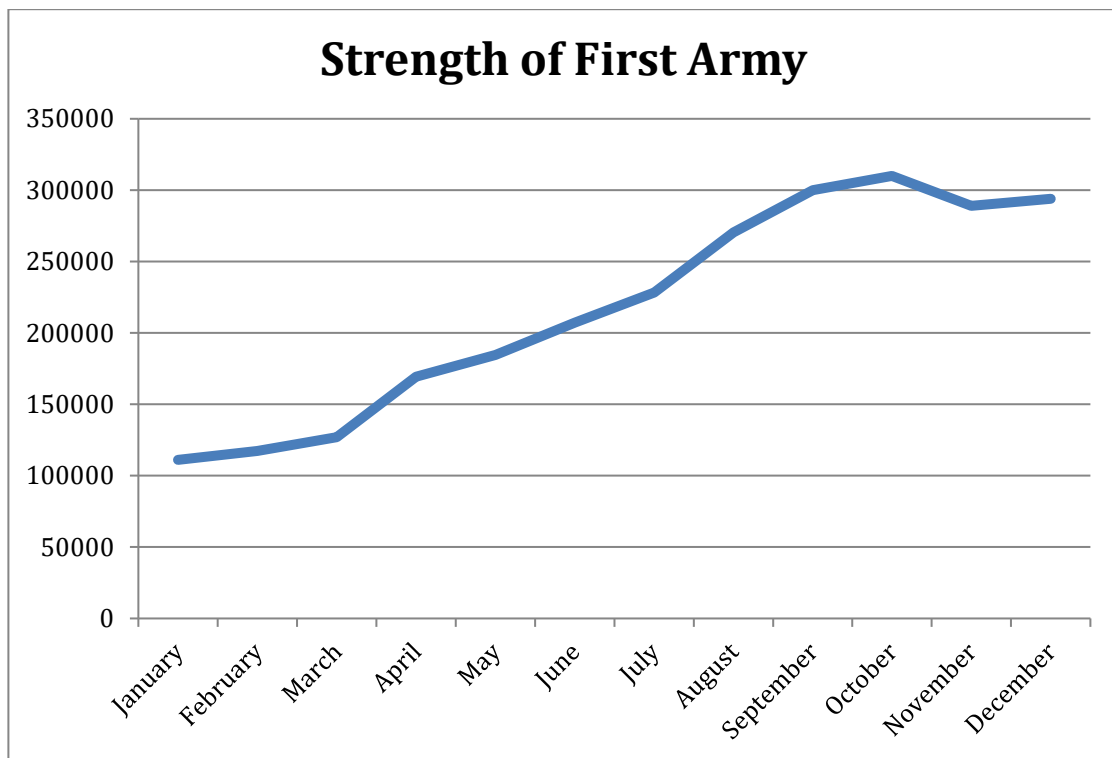
³⁷ It should be noted that this is the "feeding strength" of the army which represents the total number of servicemen in all branches of the service with the First Army on that date rather than the "fighting strength" which was reserved for the number of infantrymen or rifles.

the attachment of corps from elsewhere in the BEF to the First Army. In the first place, the number of soldiers received by any battalion depended, primarily, on the availability of reinforcements from the parent regiment. In 21 Brigade in the 7th Division for example, the 4th Cameron Highlanders of the Territorial Force received 146 other ranks replacements in the period 1 October-31 December 1915.³⁸ While this number was comparable with the 2nd Royal Scots' Fusiliers, it was far below the 539 men received by the 2nd Yorkshire Regiment and the 430 men received by the 2nd Bedfordshire Regiment in the same period.³⁹ The primary function of these regimental reinforcements was to replace the men who had been killed and wounded in battle or had been evacuated through sickness, rather than a conscious increase in the number of effective soldiers within a given battalion.

Figure 1.2: First Army Feeding Strength, 1915 Campaign

³⁸ TNA, WO95/1659, 4th Cameron Highlanders War Diary; Patrick Watt, *Steel & Tartan: the 4th Cameron Highlanders in the Great War* (Stroud, 2012), 110.

³⁹ Watt, *Steel & Tartan*, 110.



Source: NLS, Haig Papers, Acc.3155/99-103, Typescript Diary, January-December 1915; TNA, War Office, WO95/181, First Army Adjutant and Quartermaster-General War Diary, 1915.

The first material increase in the First Army in terms of formations saw the attachment of individual battalions of the Territorial Force. Despite being created as a home defence force, battalions of the Territorial Force volunteered for overseas service and were posted to the BEF on an *ad hoc* basis to augment the strength of the regular army divisions. In January 1915, the First Army included eight battalions of Territorial Force infantry which had been in France since October and November 1914. While some officers inclined towards a positive view of the Territorial Force battalions, others were less impressed. Lieutenant-General Allenby wrote to Haig on 1 November to tell him 'how magnificently the London Scottish have behaved. In discipline and tactical efficiency they have been up to the standard of the best regular troops'.⁴⁰ However,

⁴⁰ NLS, Haig Papers, Acc.3155/99, Allenby to Haig, 1 November 1914.

Brigadier-General Cecil Lowther, the commanding officer of 1 Brigade found the same battalion to be ‘in a rather sad state. Poorly commanded, everything horribly dirty and about 90 men being seen sick by the doctor daily’.⁴¹ In January 1915, five battalions of the Territorial Force were attached to the Indian Corps to alleviate Lieutenant-General Willcocks’ worries of his native Indian troops not being able to withstand a German attack. The following month, a further six Territorial Force battalions were attached to the infantry brigades of the I and IV Corps. The effectiveness of these units differed between battalions. As Lieutenant-General Sir Henry Rawlinson, the commander of the IV Corps, wrote to Lord Kitchener in late February, ‘The [4th] Cameron Territorials arrived today, a thundering fine lot of men, full of fight and excellent physique; a great contrast to the [4th] Black Watch whom I have had to pull out of the line...they are children from the slums of Dundee, many of whom are not 17 years old’.⁴² While the quality of the Territorial Force battalions differed, their attachment to experienced brigades provided their first experience of in situ informal learning by giving them the opportunity to acclimatise to the conditions of warfare on the western front. In practical terms it also freed up the regular battalions to take a more active part in offensive operations as the Territorial Force battalions were able to hold the line when the regular infantry units were withdrawn for training and rest.

⁴¹ IWM, Private Papers of Brigadier C. H. L. Lowther [afterwards IWM, Lowther Papers], Doc.7227, Diary, 23 November 1914.

⁴² TNA, Papers of Herbert Horatio Kitchener, 1st Earl Kitchener, PRO 30/57/51/14, Rawlinson to Fitzgerald, 24 February 1915.

Figure 1.2 illustrates that March 1915 saw the largest growth, percentage-wise, as the strength of the First Army increased from 126,983 soldiers at the start of the month to 169,389 officers and men by the end, despite the high casualties caused by the Battle of Neuve Chapelle. This was in part due to the posting to the First Army of the first complete Territorial Force Division – the 47th (2nd London) Division – which served throughout the 1915 campaign, first as part of Monro’s I Corps and latterly as part of Rawlinson’s IV Corps. At Loos, in September, that division was selected as one of the attacking units on the first day of the battle where they ‘did well...holding the ground gained with great tenacity’.⁴³ They were followed, in April, by the 49th (West Riding) Division, and in early May by the 51st (Highland) Division. As with the individual battalions of the Territorial Force, the divisions differed in quality and effectiveness. Despite Rawlinson’s reservations that the 49th Division ‘would not be of much value’, on their arrival he found that the brigadiers ‘seemed very keen and had their brigades in good order’.⁴⁴ Rawlinson declared himself ‘not very satisfied’ with the 51st Division and commented that ‘they are very raw – they have no trained bombers yet and their artillery is not in a good state’.⁴⁵ While Haig noted that the division was ‘in great spirits’ on its attachment to the First Army he also lamented its lack of training and efficiency.⁴⁶ One officer went further and called the division ‘a danger’ to the units around it, suggesting that operational ineffectiveness had a knock-on effect in terms of casualties in action, not only for the unit in question but also for those in close

⁴³ Churchill Archive Centre, Cambridge, Papers of General Lord (Henry S) Rawlinson [afterwards CAC, Rawlinson Papers], RWLN 1/3, Rawlinson Diary, 26 September 1915

⁴⁴ CAC, Rawlinson Papers, RWLN 1/1, Rawlinson Diary, 11 April 1915; NLS, Haig Papers, Acc.3155/100, Typescript Diary, 23 April 1915.

⁴⁵ CAC, Rawlinson Papers, RWLN 1/3, Rawlinson Diary, 2 June 1915.

⁴⁶ NLS, Haig Papers, Acc.3155/101, Typescript Diary, 13 May 1915 and 20 May 1915.

proximity.⁴⁷ Following a restructuring of the corps after the Battle of Loos in September 1915, the 46th (North Midland) Division ‘were delighted to have joined the First Army’ for a proposed attack on the Hohenzollern Redoubt.⁴⁸ In the event, the attack failed, prompting Haig to comment that ‘some Territorial Force units still require training [and] discipline’.⁴⁹ It is clear, then, that even after sustained experience of warfare on the western front major differences existed in the standard of efficiency among the Territorial Force units. Haig’s role as the ‘managing director’ of the First Army was to ensure that these units were brought up to the standard of the regular army divisions.⁵⁰ That they had not improved in terms of operational efficiency was the result of the lack of importance placed on professional development by the First Army’s war managers and the absence of a framework for the considered, methodical improvement of units’ effectiveness both in-theatre and also prior to embarkation.

The first New Army division was attached to the First Army in June 1915. The 9th (Scottish) Division arrived in France on 10 May and spent three weeks under instruction by the III Corps of the Second Army, before being appointed to the general reserve of the First Army on 3 June.⁵¹ According to Haig, the first of the New Army units ‘seemed of good class and are very keen to fight’.⁵² The 9th Division were followed by the 15th (Scottish) Division, posted to IV Corps on 15 July; the 19th (Western) Division, posted

⁴⁷ NLS, Haig Papers, Acc.3155/101, Typescript Diary, 22 May 1915. The officer in question was Major-General Alderson of the 1st Canadian Division.

⁴⁸ NLS, Haig Papers, Acc.3155/103, Montagu-Stuart-Wortley quoted in Typescript Diary, 7 October 1915.

⁴⁹ NLS, Haig Papers, Acc.3155/103, Typescript Diary, 27 October 1915.

⁵⁰ Sheffield, *The Chief*, 102.

⁵¹ TNA, WO95/2/10, General Headquarters General Staff War Diary, 3 June 1915.

⁵² NLS, Haig Papers, Acc.3155/101, Typescript Diary, 8 June 1915.

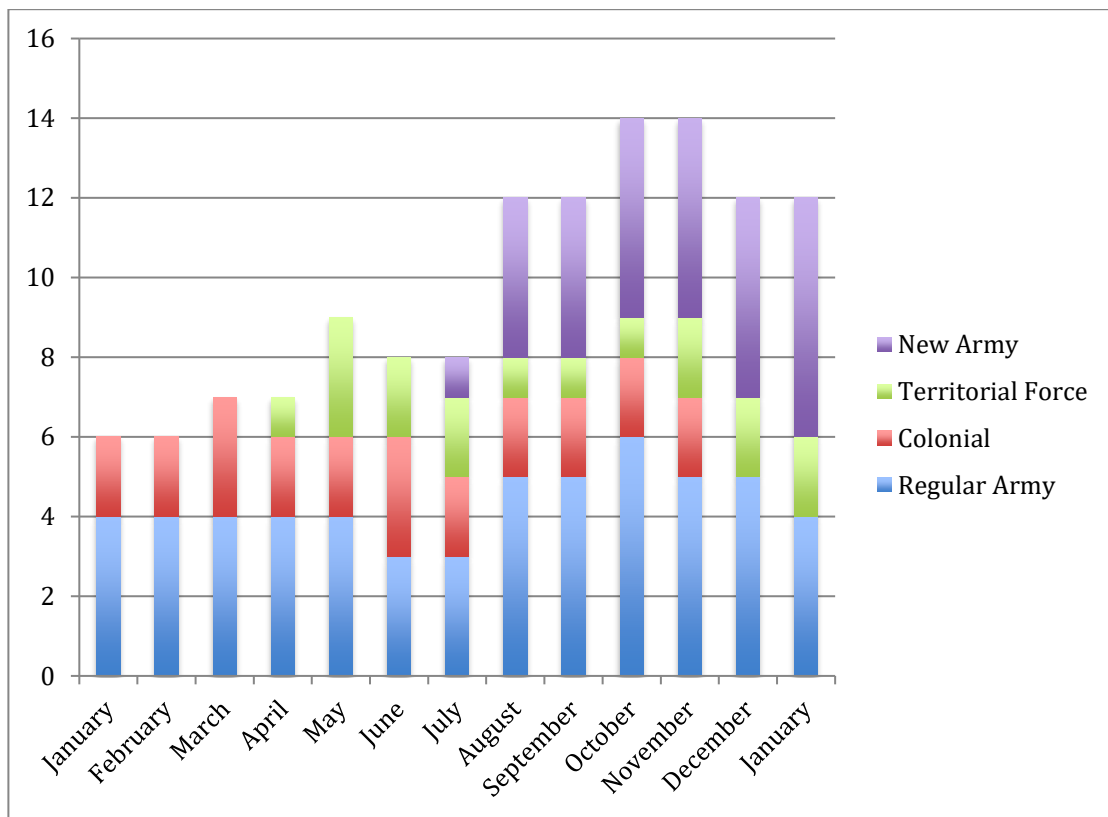
to the Indian Corps on 24 July; and the 20th Division who joined the newly arrived III Corps on 29 July. Like their compatriots in the 9th Division, the Scots in the 15th Division were 'very keen to fight' and were 'well found in brigadiers and COs of battalions'.⁵³ The men of 57 Brigade of the 19th Division were 'decidedly good' and their officers had 'pluck but not much practical knowledge of discipline or of what to do in the presence of the enemy'.⁵⁴ Major-General Davies of the 20th Division was 'most satisfied with his division' however, Haig considered them to be not as 'clean and smart as some of the other army divisions'.⁵⁵ A further batch of three divisions, the 21st, 23rd and 24th Divisions, joined the First Army in early September, however, the poor performance of the 21st and 24th Divisions at Loos led to their removal from the First Army to undergo an intensive period of training and reorganisation, from 27 September. Finally, the 12th (Eastern) Division joined the First Army in late September and the 33rd Division joined on 2 December.

Figure 1.3: The Changing Nature of the First Army by 'Type' of Infantry Division, 1915

⁵³ NLS, Haig Papers, Acc.3155/102, Typescript Diary, 21 and 22 July 1915.

⁵⁴ NLS, Haig Papers, Acc.3155/102, Typescript Diary, 27 July 1915.

⁵⁵ NLS, Haig Papers, Acc.3155/102, Typescript Diary, 3 August and 9 September 1915.



Sources: NLS, Haig Papers, Acc.3155/100-104, Typescript Diary, 26 December 1914–29 February 1916; TNA, WO95/154-161, First Army Headquarters General Staff War Diary, December 1914–February 1916; Liddell-Hart Centre for Military Archives, King’s College, London, Papers of Field Marshal Sir Archibald Armar Montgomery-Massingbird [afterwards LHCMA, Montgomery-Massingbird Papers], 6/5 and 6/6, Notebooks on Administrative Structure of the BEF, August 1915 and January 1916.

The final way in which the strength of the First Army increased in the 1915 campaign was with the introduction of new corps rather than divisions. In July 1915, the formation of the British Third Army necessitated a restructuring of the corps of the First and Second Armies. Sir William Pulteney’s III Corps moved to the First Army bringing with it the independent 19 Brigade and the regular 8th and 27th Divisions. In September, units of the Guards regiments were removed from the 1st and 2nd Divisions and formed into a separate Guards Division. This division joined with the 21st and 24th

Divisions of the New Army to form the XI Corps which was also added to the strength of the First Army.

Figure 1.3 demonstrates the changes in the composition of the First Army over the course of the 1915 campaign. While the First Army moved from a predominantly regular army formation at the start of the campaign towards a New Army formation by the end, the number of regular infantry divisions remained largely the same throughout. There was, then, a core of experienced units such as the 1st, 2nd and 7th Divisions who remained with the First Army throughout the campaign. For the majority of the campaign, colonial troops were used to augment the fighting power of the First Army. While the two divisions of the Indian Corps remain constant until the corps' removal to Mesopotamia in November, the number of colonial troops twice peaked at three divisions, in March and June. This was due to the arrival of the Canadian Division who held the line to the north of the main battlefield at Neuve Chapelle in March before being posted to the Second Army. The Canadians returned to the First Army on 13 May and fought at Festubert and Givenchy before being permanently transferred back to the Second Army in June. While the Territorial Force divisions were used as a stop-gap from April until the arrival of the New Army formations in the summer, the First Army retained a Territorial Force presence throughout the campaign. The arrival of the New Army divisions in the summer of 1915 resulted in an increase in the overall fighting strength of the First Army and, by January 1916, New Army divisions comprised fifty per cent of the strength of the First Army and represented, for the first time, the largest 'type' of infantry division.

Table 1.2: The Changing Composition of the IV Corps, 1915

Date Range	Divisions Serving with IV Corps	Battle
7 November 1914–1 March 1915	7 th (Reg) & 8 th (Reg)	
2 March–8 March 1915	7 th (Reg), 8 th (Reg) & Canadian	
9 March–9 April 1915	7 th (Reg) & 8 th (Reg)	Neuve Chapelle
10 April–31 May 1915	7 th (Reg), 8 th (Reg) & 49 th (TF)	Aubers Ridge, Festubert
31 May–27 June 1915	7 th (Reg) & 51 st (TF) & Canadian	Givenchy
27 June–30 June 1915	7 th (Reg) & 48 th (TF)	
30 June–18 July 1915	1 st (Reg), 47 th (TF) & 48 th (TF)	
18 July–end of campaign	1 st (Reg), 15 th (NA) & 47 th (TF)	Loos

Source: LHCMA, Montgomery-Massingbird Papers, 6/5, Notebook on Administrative Structure of the BEF, 1915. Reg = Regular; TF = Territorial Force; NA = New Army.

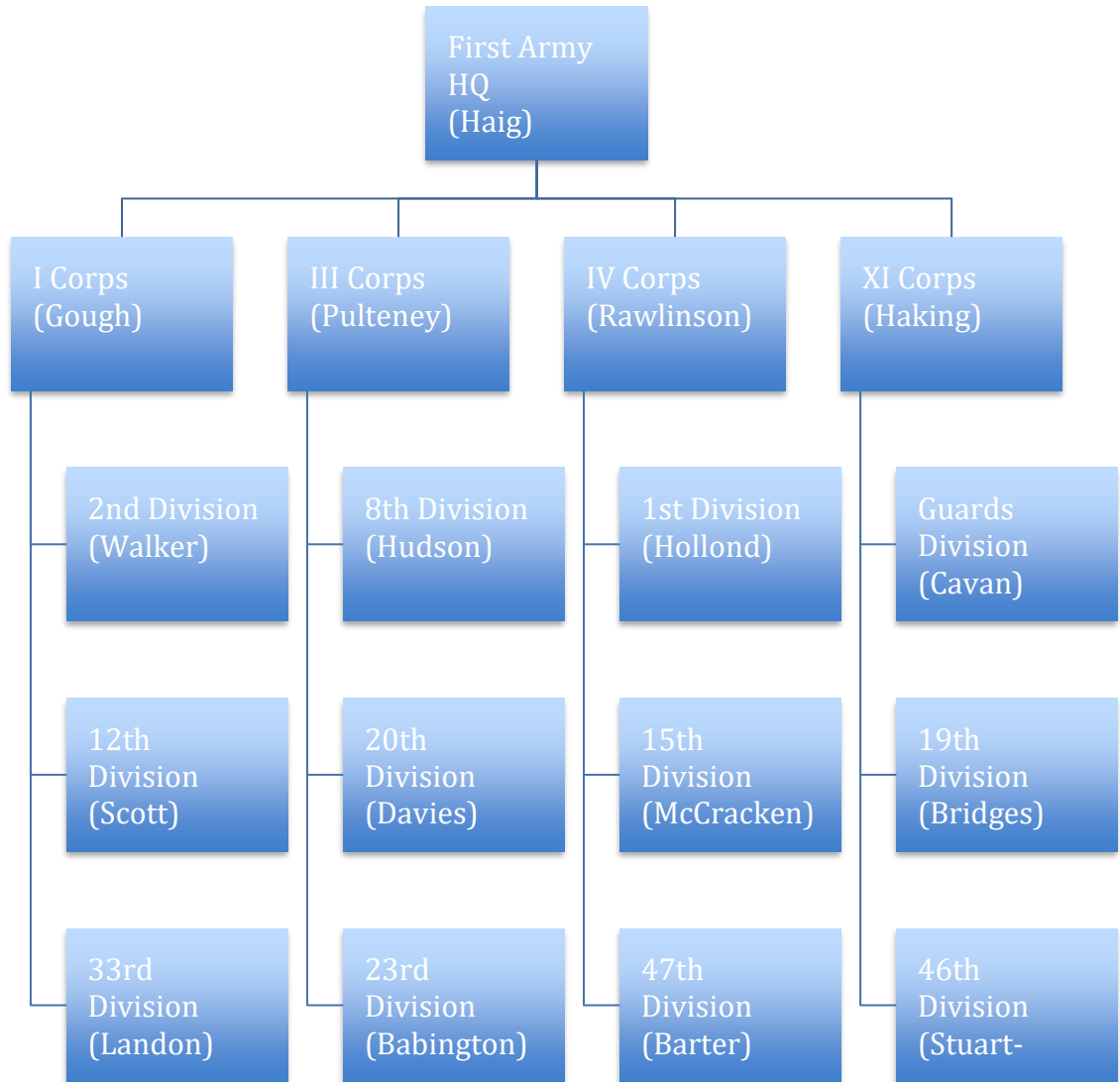
The First Army of January 1916 contained only three divisions which had begun the previous year's campaign. In total, twenty-four divisions across five different corps served in the First Army at various points in 1915. The composition of the corps changed continuously in response to the missions First Army headquarters asked them to undertake. The changing nature of the composition of the IV Corps is a typical example of the changes which took place in the wider First Army. Those changes are illustrated in Table 1.2. The IV Corps had a different structure for each of its engagements in the

1915 campaign and, in total, underwent eight structural reconstructions in the space of five months, four of which lasted less than three weeks. The constant changes in which divisions comprised the IV Corps had a knock-on effect on the formation's ability to learn from its experiences. As Catignani demonstrated in his study of Twenty-First Century counterinsurgency in Afghanistan, a key difficulty of learning in warfare is managing the knowledge loss which occurs when personnel or units change places in the institutional structure or cease to exist within the organisation.⁵⁶ While the corps headquarters were able to attempt to draw lessons from their offensive operations, the divisions which had carried out the operations were no longer part of the corps structure and were subject to a different set of learning parameters at another point in the BEF hierarchy. In short, in many cases, infantry divisions did not remain in the same place in the First Army hierarchy for long enough to create, collect and disseminate lessons learned. For example, on 28 September the 9th Division, one of the best performing divisions at Loos, was removed from the I Corps structure and transferred to the Second Army at Ypres taking with it a wealth of operational experience which was then lost to the First Army. Its replacement was the 28th Division, a formation which had spent its entire time in France as part of the Second Army or under the direct command of GHQ. The rotation of British divisions through corps was a practice which continued throughout the war and this failure to adapt to a permanent corps structure has been

⁵⁶ Catignani, 'Coping with Knowledge', 32.

viewed as ‘a major mistake; a gratuitously self-inflicted own goal’ which reduced the effectiveness of the corps.⁵⁷

Figure 1.4: First Army Structure, December 1915



⁵⁷ Gary Sheffield, 'How Even was the Learning Curve?: Reflections on the British and Dominion Armies on the Western Front', in Yves Tremblay (ed.), *Canadian Military History since the 17th Century* (Ottawa, 2000), 126.

In contrast, the Canadian and ANZAC divisions of the BEF were kept together in distinct Dominion corps within the wider BEF structure. The permanence of their structure not only allowed the creation of a distinct set of standard operating procedures based on their respective experiences, but also an increased trust between individuals – both staff and regimental officers – who were familiar with the inner workings of the corps hierarchy.⁵⁸ By the end of the war, the dominion corps had emerged as some of the most effective fighting formations in the BEF. While this was the result of a number of factors, including visionary, flexible, leadership and a dedicated training programme, the permanence of the corps structure materially affected the corps' abilities to collate and disseminate information.

While at the start of the campaign the First Army was largely comprised of experienced regular and colonial units, a mix of Territorial Force and New Army divisions joined throughout the year, increasing its firepower if not its effectiveness. In theory, by the end of the 1915 campaign, the First Army could have been said to have been an experienced formation. However, the reality was rather different. Not only did the First Army war management hierarchy change with Haig's promotion to commander-in-chief, but the experience levels dropped substantially as units, such as the 9th Division, were replaced by less experienced units after the Battle of Loos. The First Army of the 1916 campaign bore little resemblance to that of the 1915 campaign and the changes in structure affected the First Army's ability to learn effectively. In business management

⁵⁸ Sheffield, 'How Even was the Learning Curve?', 131. See also, Dean Oliver, 'The Canadians at Passchendaele', in Peter Liddle (ed.), *Passchendaele in Perspective: The Third Battle of Ypres* (Barnsley, 1997), 255-71.

theory, Kathleen Carley has shown that when individuals leave organisations without there being a mechanism in place for the sharing of personal experience among the decision-makers, knowledge disappears, the organisation's memory is reduced and, consequently, institutional effectiveness decreases.⁵⁹ There was no such framework within the First Army nor the wider BEF structure in 1915 which was designed to capture that knowledge. This resulted in differing levels of efficiency across the force, which was exacerbated by the lack of a definition of what an army staff should do and the knock-on failure of war managers at either First Army or GHQ to take responsibility for the organisation's professional development. The implication for organisational development, at the tactical level at least, was that the unofficial responsibility for active learning passed from army and corps command to the war managers of individual divisions. These divisional war managers internalised their lessons learned, leaving corps commanders to plan the next battle with subordinate formations which did not possess the same knowledge base.

The Impact of Casualties on Organisational Memory

The removal of experienced units from the First Army hierarchy and the mass casualties sustained by the First Army pose questions regarding the institution's organisational memory. Research by Weick and Ashford has demonstrated that 'organisations with a high turnover rate learned less and learned more slowly' than those with a stable

⁵⁹ Kathleen Carley, 'Organisational Learning and Personnel Turnover', *Organizational Science* 3.1 (1992), 20.

structure.⁶⁰ The question of where knowledge gained from lessons learned was stored has important implications for understanding the First Army's organisational development. Catignani demonstrated that armies are 'repositories of knowledge' in which knowledge is manifested and embedded in the army's structures, rules, mental models and dominant thinking.⁶¹ The careful management of that knowledge is crucial to successful organisational development. The creation of knowledge is, however, a human process, and organisational development is an agglomeration of the learning processes of multiple key stakeholders within the institution. As Jim Storr asserted, warfare 'is fundamentally human, and waged between complex human organisations' rather than being based solely on strategic principles.⁶² While individual learning is necessary for organisational development to take place, it does not, in itself, effect institutional change. For that to happen armed forces require a system to translate 'tacit knowledge (the knowledge of individuals) into explicit knowledge (knowledge codified for sharing with others) and then to transfer this knowledge throughout the organisation'.⁶³ In military institutions this is made more difficult by the loss of knowledge caused by the high turnover of personnel. This section will examine how battlefield casualties affected the transfer of knowledge in the First Army and the implications they had on the formation's organisational memory.

⁶⁰ Karl Weick and Susan Ashford, 'Learning in Organisations', in Frederic Jablin and Linda Putnam (eds), *The New Handbook of Organisational Communication: Advances in Theory, Research and Methods* (Thousand Oaks, 2000), 718.

⁶¹ Catignani, 'Coping with Knowledge', 35.

⁶² Jim Storr, *The Human Face of War* (London, 2011), 2.

⁶³ Foley, 'Dumb Donkeys or Cunning Foxes', 281.

The learning process is especially inhibited by traumatic experiences, such as conflict, where the opportunities to challenge and test lessons learned are not always available.⁶⁴ In the context of the Great War, the loss of personnel was profound, particularly among officers. Indeed, between 4 August and 30 November 1914, the BEF lost 3,627 officers and over 86,000 men of the regular army killed and wounded leaving the average infantry battalion with only one officer and thirty men of the original contingent still serving with the battalion at the end of 1914.⁶⁵ This meant that the regular army units of the First Army were depleted by the fighting of 1914 and were increasingly eroded of experienced personnel as the 1915 campaign progressed. The place of experienced men were taken by recalled reservists and volunteers. John Baynes's study of the regular 2nd Scottish Rifles at the Battle of Neuve Chapelle showed that in the early period of the war reservists 'found little difficulty in settling down again into a military life' and the more mature among them were 'quickly fitted into jobs where their experience and maturity outweighed any physical weakness'.⁶⁶ However, the standard of volunteer reinforcements from the regimental depots lacked the efficiency of the pre-war regulars. Brigadier-General Charles Corkran noted, after reviewing recent drafts to 5 Brigade in the 2nd Division, 'that the esprit de corps of the old units was lacking in battalions and...some of the battalions seemed to lack the fighting energy and morale which characterised the original units' of the Expeditionary Force.⁶⁷ In April 1915, Haig noted, after an inspection of a battalion of the Inniskilling Fusiliers, that their appearance

⁶⁴ Nolan, *Military Leadership*, 12.

⁶⁵ Foley, 'Dumb Donkeys or Cunning Foxes', 284.

⁶⁶ Baynes, *Morale*, 52.

⁶⁷ NLS, Haig Papers, Acc.3155/104, Typescript Diary, 23 October 1915.

‘was not good’ and that ‘some of the later drafts look very slack’.⁶⁸ More worryingly for the war managers were drafts to the 69th Punjabis of the Indian Corps who, in September, were described by Haig as being ‘useless for fighting purposes’.⁶⁹

The five offensive operations of the 1915 campaign, coupled with the constant human attrition of trench warfare, proved costly for the First Army. In total, the First Army suffered 5,927 officers and 134,579 other ranks killed, wounded and missing over the course of the campaign.⁷⁰ Figure 1.5 highlights the casualties sustained in each battle undertaken by the First Army in the 1915 campaign. In terms of casualties, the Battle of Loos in September and October was the most costly for the First Army with 59,242 officers and other ranks killed, wounded and missing.⁷¹ However, when the number of casualties sustained per day of battle is ascertained, the Battle of Aubers Ridge with 11,619 officers and other ranks killed, wounded and missing on 9 May alone, was by far the most costly.⁷² Indeed, in terms of the number of troops involved, that battle was one of the most bloody of the war for the BEF.⁷³ The five planned offensive actions cost the First Army 72,865 out of their total 140,506 casualties.⁷⁴ While the rigours of trench warfare proved as damaging as offensive operations, the large-scale, rapid change

⁶⁸ NLS, Haig Papers, Acc.3155/101, Typescript Diary, 29 April 1915.

⁶⁹ NLS, Haig Papers, Acc.3155/103, Typescript Diary, 9 September 1915.

⁷⁰ Edmonds, *British Official History*, 1915, Vol.2, 393.

⁷¹ Edmonds, *British Official History*, 1915, Vol.2, 391.

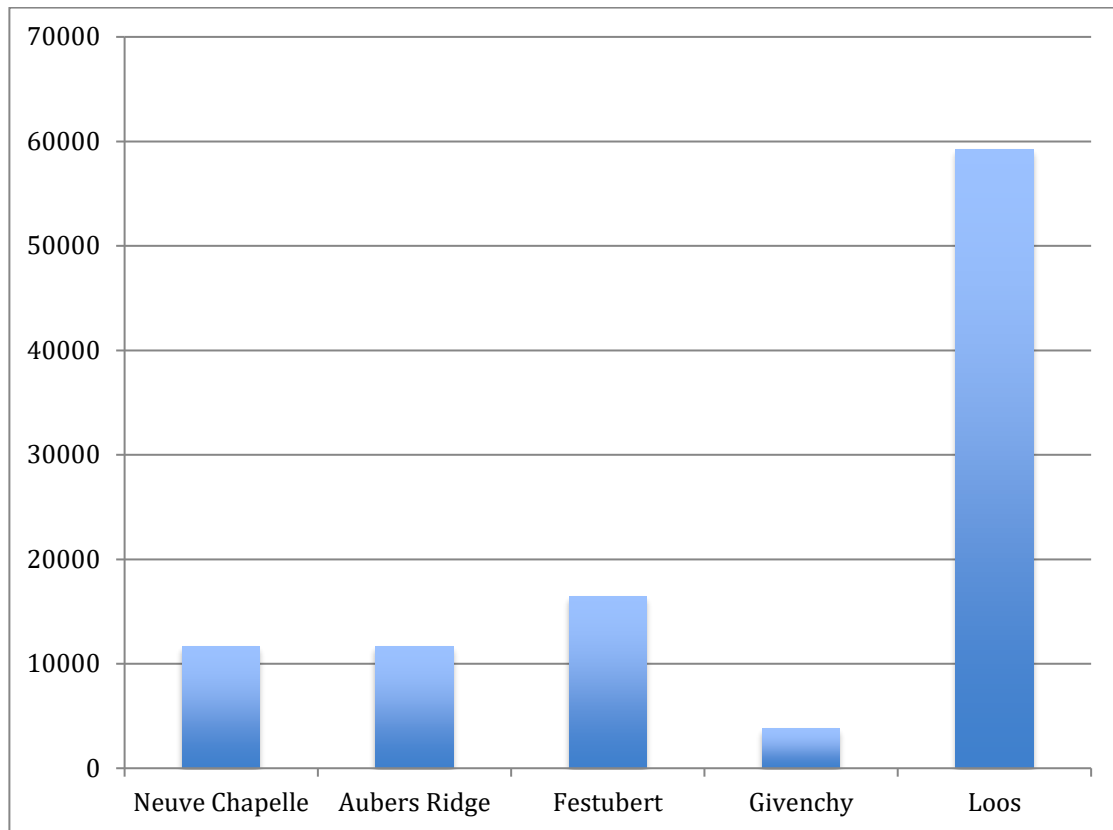
⁷² The other day rates are Neuve Chapelle, 3,887 casualties per day; Festubert 1,665 casualties per day; Givenchy, 1,905.5 casualties per day; and Loos 3,118 casualties per day.

⁷³ Edmonds, *British Official History*, 1915, Vol.2, 39.

⁷⁴ Despite largely sitting on the defensive during the 1915 campaign, the British Second Army sustained nearly as many casualties as the First Army: in total 5,347 officers and 126,887 other ranks were killed, wounded and missing from the Second Army, including 2,150 officers and 57,125 other ranks during the Second Battle of Ypres, a casualty rate equal to that of Loos.

caused by the latter proved to be more traumatic for the organisational development of infantry formations.

Figure 1.5: Casualties in the Five Major Actions Undertaken by First Army, 1915



Sources: Edmonds, British Official History, 1915 Vol.1, 151 (Neuve Chapelle); Edmonds, British Official History, 1915, Vol.2, 39 (Aubers Ridge), 76 (Festubert), 97 (Givenchy), 391 (Loos).

Battlefield casualties and their replacement from the depots temporarily undermined unit cohesion and efficiency.⁷⁵ For Lance Corporal Ian Andrew of the 6th Cameron Highlanders, the highly trained, disciplined and efficient battalion in which he had

⁷⁵ Boff, *Winning and Losing on the Western Front*, 44-5.

served for a year 'ceased to exist' following its casualties at the Battle of Loos.⁷⁶ After sustaining 560 casualties during the same battle, the 7th Cameron Highlanders of the 15th Division were described by Lord Kitchener as being by 'far the finest battalion of the new army' on account of both the physical appearance of their men and their performance in capturing the strategically important position of Hill 70.⁷⁷ However, the scale of the casualties had eroded the composition of the battalion to such an extent that few of the original members remained with the unit. The reputation the original members established contributed to later judgements of battalion effectiveness even when the individual personnel had changed. Following their high casualty rate at Loos, the 7th Camerons were given a month in reserve billets to rest and refit, however, on their return to the trenches on 26 October, '75% of the officers and men had never been under shell or rifle fire, and had not seen a trench'.⁷⁸ As a result, the adjutant considered the battalion 'new to its job'. Despite its inexperience the new men of the 7th Camerons 'did very well. Corpses [were] not appreciated by the younger members, but [there was] no wild firing or scares'.⁷⁹ For the 9th Black Watch, the casualties caused by the Battle of Loos had necessitated the complete reorganisation of the battalion but, while the recruits brought the battalion up to strength, it was nowhere near the standard of efficiency it had been a month earlier.⁸⁰

⁷⁶ Leeds University Special Collections Department, Liddle Collection, Western Front Recollections A-L, A9, Papers of I.G. Andrew, (Afterwards LUSCD, Andrew Papers), 241.

⁷⁷ Colonel Mackintosh to Lieutenant-Colonel James Sandilands, 13 October 1915, quoted in James Sandilands and Norman Macleod, *The History of the 7th Battalion Queen's Own Cameron Highlanders* (Stirling, 1922), 33.

⁷⁸ TNA, WO95/1941, 7th Cameron Highlanders War Diary, 26 October 1915.

⁷⁹ TNA, WO95/1941, 7th Cameron Highlanders War Diary, 28 October 1915.

⁸⁰ Arthur Wauchope, *A History of the Black Watch (Royal Highlanders) in the Great War, 1914–1918*, Vol.3, (London, 1926), 44.

The second consequence of the high casualty rate was that the need to train and integrate the reinforcements removed units from the battle line. Between 25 September and 31 December, 44 Brigade, of which the 7th Cameron Highlanders formed a part, received over 2,000 replacements from regimental depots in the United Kingdom ‘who had not anything like the training [the original members of the 44 Brigade] had before coming out in July’.⁸¹ It was a similar story in the 7th Division where the Battle of Festubert in May led to the fourth reconstruction of the division since October 1914; a process which became more difficult as each offensive removed more trained officers, NCOs and men.⁸² The disorganisation caused by the battle led the divisional historian to conclude that the units which were reconstituted at the end of May were not worth as much in terms of efficiency as they had been when the battle opened two weeks before.⁸³ Opportunities for the training and integration of new recruits proved elusive for many units throughout the 1915 campaign and even when training was conducted in the 9th Gordon Highlanders, ‘junior officers and men did not often last long enough to absorb the training imparted or to pass on the experience of battle’.⁸⁴

The latter point highlights the importance of battlefield casualties on organisational development. Casualties among infantry battalion officers were high throughout the campaign but particularly so at the Battle of Loos. During the battle, battalions were

⁸¹ IWM, Private Papers of Brigadier-General Montagu Grant Wilkinson [afterwards IWM, Wilkinson Papers] Doc.8035, ‘Wartime Scrapbook’, 71.

⁸² Atkinson, *Seventh Division*, 184-5.

⁸³ Atkinson, *Seventh Division*, 184.

⁸⁴ Cyril Falls, *The Life of A Regiment: The History of the Gordon Highlanders*, Vol.4, (Aberdeen, 1957), 30. Training will be discussed in detail in Chapter Five.

restricted to employing twenty officers with the attack; the remainder being left with the battalion transport to provide reinforcements.⁸⁵ Table 1.3 highlights the extent of casualties in three infantry brigades: 21 Brigade of the 7th Division, 27 Brigade of the 9th Division, and 45 Brigade of the 15th Division. Of the five battalions of 21 Brigade which attacked on 25 September, four – the 8th Devons, 9th Devons, 2nd Gordon Highlanders and 6th Gordon Highlanders – lost their commanding officer killed or wounded, and the 8th Devons and the 6th Gordon Highlanders also lost their battalion adjutant. Officer casualties in the 8th Devons were exceptionally high. All but three of the battalion's officers were killed or wounded before reaching the German front line trench and they all became casualties before nightfall.⁸⁶ The five officers who remained as a first reinforcement only reached the battalion during the night of 25-26 September. As a result of the high casualties the battalion after-action report was written by Captain G. D. Roberts, an officer who had not taken part in the attack.⁸⁷ While the report included some prescient information regarding the employment of machine-gunners and signallers, Roberts admitted that, with respect to the original advance 'for some reason which I am unable to ascertain the second and third companies seem to have started off before the first'.⁸⁸ The reason why he could not ascertain this rather basic point was due to the 100 per cent casualty rate among the 8th Devons' officers who had attacked on the morning of 25 September. The high casualty rate among officers was replicated in the

⁸⁵ Leeds University Special Collections Department, Liddle Collection, Papers of General Sir Philip Christison, GS 0309 (afterwards LUSCD Christison Papers), 'Contemporary Account in Detail of the Battle of Loos 25/26 September 1915', 1.

⁸⁶ TNA, WO95/1655, 8th Devonshire Regiment War Diary, 25-26 September 1915.

⁸⁷ TNA, WO95/1629, 7th Division General Staff War Diary, Captain G. D. Roberts, After Action Report of the 8th Devons, 6 October 1915.

⁸⁸ TNA, WO95/1629, 7th Division General Staff War Diary, Captain G. D. Roberts, After Action Report of the 8th Devons, 6 October 1915.

majority of attacking battalions in the I and IV Corps at Loos. The loss of officers who had planned and experienced the battle meant that knowledge gained through their experiences was lost to their unit with their removal through death or wounds.

Table 1.3: Officer Casualties (Killed, Wounded and Missing) at the Battle of Loos (selected brigades)

Rank	21 Brigade	27 Brigade	45 Brigade
Lieutenant-Colonel	4	3	2
Major	3	3	3
Adjutant	2	2	3
Captain	12	13	17
Lieutenants (1 st & 2 nd)	55	24	39
Support Officers	1	0	0
Total	77/100	47/80	64/80

Sources: TNA, WO95/1652, 20 Infantry Brigade Headquarters War Diary, September–December 1915; TNA, WO95/1769, 27 Infantry Brigade Headquarters War Diary, May 1915–December 1916; TNA, WO95/1942, July 1915–December 1916.

A key step in the creation and transfer of data in the First Army was the dissemination of after-action and lessons learned reports. The former consisted of narrative accounts of operations, typically at company, battalion or brigade level, and the latter were more analytical documents which sought to identify areas of unit offensive operations which were successful and should be replicated and those which failed and should be reconsidered. However, particularly in the early stages of the campaign, there was often

some crossover between the two types of report. This occurred because there was no centrally controlled system of knowledge management and no army-wide guidelines which stipulated what should be included in the reports. Foley has shown that in the German Army between 1914 and mid-1916 units created reports on an *ad hoc* basis which were sometimes disseminated by the high command but were more often used within formations for training purposes.⁸⁹ Analysis of British Army unit war diaries from the 1915 campaign reveal similarities in approach. While some battalion reports found their way to divisional headquarters, many did not and that knowledge was retained within and used by the lower-level tactical formations. John Lee suggested that the creation of these reports shows that the army was constantly looking to learn lessons from its experiences, however this oversimplifies the process of organisational development.⁹⁰ Identifying lessons was one step in the wider process but a crucial factor in determining whether that new knowledge would be transferred was the ability of the war managers to give consideration to reports which originated at the bottom of the command structure.

At the regimental level, new knowledge gained from battlefield experiences resided with the officers or group of officers who compiled the after-action report. However, the nature of casualties in the 1915 campaign, in which many experienced officers at the level of battalion command, company command and the battalion adjutant were killed or

⁸⁹ Foley, 'Horizontal Military Innovation', 816.

⁹⁰ John Lee, 'Some Lessons of the Somme: The British Infantry in 1917', in Brian Bond (ed.), *Look to Your Front: Studies in the First World War by the British Commission for Military History* (Staplehurst, 1999), 81.

wounded, meant that the officers who had planned and executed a battalion attack were often not able to record and pass on their experiences. A good example of this is the case of the 7th Seaforth Highlanders, a part of 26 Brigade in the 9th (Scottish) Division during the Battle of Loos. The battalion attacked the Hohenzollern Redoubt at 6.30am on 25 September with twenty officers and approximately 800 men. Three hours later the commanding officer, Lieutenant-Colonel Gainsford was killed and the battalion adjutant wounded. Command devolved onto Captain Bennitt who was wounded some minutes later. As the four company commanders had been killed or wounded before or shortly after leaving the British trenches, a junior captain named Henderson took over command of the 7th Seaforths until he was killed on 27 September. The battalion now came under the command of Major Pelham Burn, an officer who had not taken part in the attack. As Burn's knowledge of the battalion's experiences during 25–27 September was second-hand, it was left to a junior platoon commander, Lieutenant Wyndham-Green, to compile the after-action report as he was the only officer remaining with the battalion who had survived the three days' fighting unscathed.⁹¹ While this was, undoubtedly, a sensible decision, it highlights the difficulty in obtaining a true picture of the battalion's experiences. As a platoon commander who had volunteered in September 1914, Wyndham-Green was an inexperienced officer who had not been in action before the battle. Additionally, he had no input into the planning of the battalion's actions on 25 September and, as such, was not particularly well-placed to judge the actions of his battalion. As a result, his after-action report is a factual record of what he witnessed

⁹¹ TNA, WO95/1762, 26 Infantry Brigade War Diary, September 1915 supplement; TNA, WO95/1765, 7th Seaforth Highlanders War Diary, Lieutenant Wyndham-Green, 'The 7th Seaforths in Action, 25–27 September'.

rather than a detailed analysis of the successes and failures of the battalion attack. It was a similar story with the after-action report of the 2nd Royal Irish Rifles after the Battle of Aubers Ridge where Captain A. J. Ross, who had not been permitted to join the attack as he only joined the battalion on the morning of the battle, was forced to consult surviving non-commissioned officers to provide a statement of operations as all twenty-three officers who had attacked with the battalion were casualties by the close of operations.⁹²

Casualties among battalion officers affected the potential to create and collect data at a local level; the fewer casualties a battalion sustained in an offensive operation the larger pool of knowledge it could consolidate and transfer. However, the degree to which battalion officer casualties had an effect on the learning process was affected by one crucial factor: input from higher up the chain of command. As much as Wyndham-Green's report was a factual account of the battalion experience from his perspective, so were those provided by the other battalions of 26 Brigade.⁹³ Indeed, among the seven officers who remained with the 5th Cameron Highlanders in the evening of 27 September were the commanding officer, Lieutenant-Colonel Cameron of Lochiel, the second in command and the battalion adjutant, all of whom had joined the attack.⁹⁴ Lochiel's report to 20 Brigade headquarters was written on the same day as Wyndham-Green's and, content-wise, was of little difference; a factual rather than an analytical report. The survival of the senior officers of the 5th Cameron Highlanders did not alter

⁹² TNA, WO95/1724, 25 Infantry Brigade Headquarters War Diary, May 1915, supplement.

⁹³ TNA, WO95/1762, 26 Infantry Brigade Headquarters War Diary, September 1915 supplement.

⁹⁴ John McEwen, *The Fifth Camerons* (Edinburgh, 1938), 53.

the type of report sent to 26 Brigade. The inexperienced battalions of 26 Brigade at the Battle of Loos adhered to a top-down system of knowledge-transfer in which they responded to limited brigade and divisional requests for information with facts rather than analysis. This suggests that the consideration of newly-created data took place at a level higher than battalion command. The impact of casualties on the learning process could be tempered by both time and initiative. Following their recovery from wounds received at Loos, Captains Crichton and Dewar of the 5th Cameron Highlanders rejoined the battalion by the end of 1915, bringing with them knowledge of operations and increasing the battalion's effectiveness.⁹⁵ With regards to initiative, the orderly-sergeant of the 2nd Royal Irish Rifles copied down a report dictated by the battalion adjutant as the latter was being sent to hospital wounded.⁹⁶ This quick thinking meant that key lessons identified by a planner of the battalion's operations were not lost from the wider unit learning process.

While casualties among battalion officers affected the potential for learning from the bottom-up, casualties among officers at a higher level of command had a more wide-ranging impact on the First Army's organisational development. Although the death of Brigadier-General Lowry Cole created an immediate command confusion among the battalions of 25 Brigade at Aubers Ridge in May, the overall impact of his death on the brigade learning process was minimal as he was replaced by an officer promoted from within the 25 Brigade structure and whose staff was able to draw up an accurate record

⁹⁵ McEwen, *Fifth Camerons*, 78.

⁹⁶ TNA, WO95/1724, 25 Infantry Brigade Headquarters War Diary, May 1915, supplement.

of the brigade's experiences to pass on to the 8th Division headquarters for analysis.⁹⁷ Over the nineteen days of the Battle of Loos, three divisional commanders, Major-General Capper of the 7th Division, Major-General Thesiger of the 9th Division and Major-General Wing of the 12th Division became casualties. In each of these instances, and the capture of Brigadier-General Clarence Bruce of 27 Brigade, officers of the general staff were also killed or wounded alongside their divisional commanders. However, crucially, at no point were the divisional senior staff officer (GSO1) and the divisional commander rendered ineffective at the same time. In the 9th Division, while Thesiger was killed on 27 September, his GSO1, Lieutenant-Colonel Hollond produced a thorough analysis of the division's performance and sought to seek out lessons for future operations.⁹⁸ Similarly, at 7th Division headquarters, Capper's GSO1, Lieutenant-Colonel Gathorne-Hardy took the initiative in issuing a letter calling for the brigade commanders and divisional specialists to 'consider the late operations and report fully as to any lessons which you can deduce from them'.⁹⁹ This highlights the importance of a unit or formation's senior officers in the process of organisational development. While the loss a member of the divisional war managers was a blow to operational planning consistency and leadership and represented a loss of potential knowledge in the same way as at battalion command, the efficiency of the wider divisional staff was a more telling factor in promoting the creation, acquisition and transfer of knowledge.

⁹⁷ TNA, WO95/1724, 25 Infantry Brigade Headquarters War Diary, May 1915, supplement.

⁹⁸ TNA, WO95/1733, 9th Division General Staff War Diary, September 1915, Lieutenant-Colonel S. E. Hollond, 'Lecture on the Part Played by the 9th Division in the Battle of Loos'.

⁹⁹ TNA, WO95/1629, 7th Division General Staff War Diary, October 1915, Lieutenant-Colonel F. Gathorne Hardy to Infantry Brigades, CRA, CRE, Signals and Logistics, 7 October 1915.

As Catignani demonstrated, ‘at any stage of the learning process, new knowledge can be lost or discarded’.¹⁰⁰ At the battalion level the overwhelming infantry officer casualties in the 1915 campaign ensured that the maximum potential knowledge of operations and lessons learned which could be transferred was significantly diminished. As the example of the 2nd Royal Irish Rifles at Aubers Ridge demonstrates, in some cases no officers who could evaluate the effectiveness of battalion operations remained with their units to pass on knowledge. While this could be tempered by the return of wounded officers and the capture of officers’ knowledge prior to medical evacuation, the loss of knowledge potential was heavily affected by battlefield casualties. Inasmuch as Nolan has suggested that a battalion’s officers were its ‘gatekeepers of organisational culture’ with regards to tradition, history and standard practice, the survivors of an offensive action became the gatekeepers of knowledge management for the battalion at that point.¹⁰¹ In terms of tactical effectiveness, the crucial post-battle knowledge at the decision-making level resided with a battalion’s surviving officers. However, input from further up the army’s hierarchy directly affected what those officers did with their newly acquired knowledge. In an organisational structure which lacked a formal, standardised system for gathering and transmitting knowledge gained through experience, some units were content to submit narrative accounts rather than operational analyses. While knowledge was created by front-line officers, mid-ranking officers at brigade and divisional headquarters retained more power in influencing how learning

¹⁰⁰ Catignani, ‘Coping with Knowledge’, 36.

¹⁰¹ Nolan, *Military Leadership*, 11. The term ‘gatekeepers of organisational culture’ is prominent in current organisational culture theory. See, for example, Marina du Plessis, *The Impact of Organisational Culture on Knowledge Management* (Oxford, 2006), 116.

occurred in their part of the organisation. Indeed, divisional senior officers and their staff were key in the collection and transfer of knowledge, even when faced with the deaths of the commanding officer. The informal and uneven system of data collection was spurred by the general staff at divisional level who then replaced the battalion officers as the gatekeepers of knowledge management.

Knowledge-Transfer in the BEF Hierarchy

While the tactical effectiveness of divisions was affected by their internal learning processes, it is important to recognise that the First Army existed as part of the wider British Expeditionary Force and was influenced by knowledge and input from outwith its own structure. In the 1915 campaign this occurred in three ways. First, the war managers of the First Army transmitted and received knowledge in a formal manner from British General Headquarters (GHQ). This represents the traditional top-down command structure of the British Army in which information and orders are passed from senior to subordinate officers. Second, the First Army could transfer information to and receive information from the Second and Third Armies, then also parts of the BEF in France and Flanders. This level of knowledge-transfer is more akin to Foley's ideas of 'horizontal military innovation' albeit at the level of high command rather than individual front-line units.¹⁰² Finally, the war managers of the First Army could be affected from outwith the military hierarchy completely by the intervention of politicians and civilians on an informal basis. This section will examine the extent to which these

¹⁰² Foley, 'A Case Study in Horizontal Military Innovation', 799–827.

three factors influenced the organisational development of the First Army in the 1915 campaign.

As the first section of this chapter demonstrated, in many ways British GHQ was content to stand back from the First Army's operational planning in 1915. Indeed Simon Robbins has shown that GHQ was a 'hastily and imperfectly improvised' institution which did not 'function properly as the "brain" of the army' during the 1915 campaign.¹⁰³ A contributing factor to this was the influence of the commanding officer, Sir John French, a soldier of 'undisciplined intellect and mercurial personality' whose strategic and tactical ideas remained firmly entrenched in a nineteenth-century ideal of warfare.¹⁰⁴ French was assisted at GHQ by a war management team split into three sections: the Quartermaster-General's branch which had responsibility for the supply of the army; the Adjutant-General's branch with responsibility for the management of military personnel; and the General Staff whose duties involved the planning and implementation of offensive actions.¹⁰⁵ The most influential of these divisions was the General Staff whose commander (the CGS) was the BEF's senior administrator. When Lieutenant-General Sir William Robertson took over as CGS on 25 January 1915 he chose to alter the structure and personnel of GHQ to increase efficiency and spread the

¹⁰³ Robbins, *British Generalship on the Western Front*, 116.

¹⁰⁴ Holmes, *Little Field Marshal*, 367. For recent analysis of Sir John French's leadership in the 1914 campaign see Stephen Badsey, 'Sir John French and Command of the BEF', in Spencer Jones (ed.), *Stemming the Tide: Officers and Leadership in the British Expeditionary Force, 1914* (Solihull, 2013), 27-50.

¹⁰⁵ An in-depth summary of the workings of GHQ can be found in Dan Todman, 'The Grand Lamasonry Revisited: General Headquarters on the Western Front, 1914-1918', in Gary Sheffield and Dan Todman (eds), *Command and Control on the Western Front: The British Army's Experience, 1914-1918* (Staplehurst, 2004), 39-70.

overwhelming workload caused by the expansion of the army.¹⁰⁶ In addition, Robertson brought a new, more forceful attitude to GHQ which was manifested in ‘a mixture of rigorous attention to detail leavened by creative strategic thinking’.¹⁰⁷ His appointment was popular among the officers of the First Army. Haig considered that in talking to Robertson ‘one gets a feeling of confidence that he will be thorough and practical in whatever plans he takes in hand’, while Rawlinson at IV Corps headquarters thought the appointment of Robertson ‘will be a vast improvement [which] augers well for the future’.¹⁰⁸

Knowledge was transferred and information was shared between GHQ and the First Army in three main ways. First, formal communication by means of orders and written and verbal correspondence between the respective headquarters continued throughout the campaign. While Haig retained significant freedom in planning offensive actions, GHQ was able to influence First Army’s plans by dictating the date, and in some cases location, of the First Army attacks. Thus, the plans for the Aubers Ridge offensive in May were postponed by GHQ after consideration of the French inability to register their artillery on the German trenches; those for Givenchy in June were postponed twice to

¹⁰⁶ Sir William Robertson, *From Private to Field Marshal* (London, 1921), 219-23. For recent work on Robertson’s impact on the BEF see David Woodward, *Field Marshal Sir William Robertson: Chief of the Imperial General Staff in the Great War* (Westport, CT, 1998); John Spencer, ‘“The Big Brain in the Army”: Sir William Robertson as Quartermaster-General’, in Spencer Jones (ed.), *Stemming the Tide: Officers and Leadership in the British Expeditionary Force, 1914* (Solihull, 2013), 89-107. For a view of the work of Robertson’s predecessor, Sir Archibald Murray, see John Bourne, ‘Major-General Sir Archibald Murray’ in Jones (ed.), *Stemming the Tide*, 51-69.

¹⁰⁷ Spencer, ‘The Big Brain’, 107.

¹⁰⁸ NLS, Haig Papers, Acc.3155/100, Typescript Diary, 5 February 1915; CAC, Rawlinson Papers, RWLN 1/1, Rawlinson Diary, 25 January 1915.

conform with French attacks; and GHQ ordered the First Army to concentrate their offensive efforts south of the La Basse Canal following the failure of the Festubert offensive.¹⁰⁹ The role of GHQ in determining the parameters of offensive action is an important factor when constructing the Organisational Development Model, discussed further in chapter two, which demonstrates how the First Army learned in the 1915 campaign.

Second, information was shared between GHQ and First Army in person through formal visits and conferences and informal lunches and dinners. Analysis of Haig's diary shows the personal interactions of French, Haig and Robertson as the 1915 campaign progressed. Over the course of Haig's tenure as the commander of the First Army there were eighty-eight instances when the war managers of the First Army met with those from GHQ.¹¹⁰ The majority of the meetings happened in the first five months of the campaign with April and May 1915 seeing seventeen meetings between French and Haig alone, as they grappled with the planning of the Aubers Ridge and Festubert offensives. The meetings between the two men tailed off dramatically from June onwards, save for a peak in September during the planning of the Loos offensive. Conferences including all three senior war managers peaked in March, May and September and reflect their use as a forum for the discussion of impending operations.

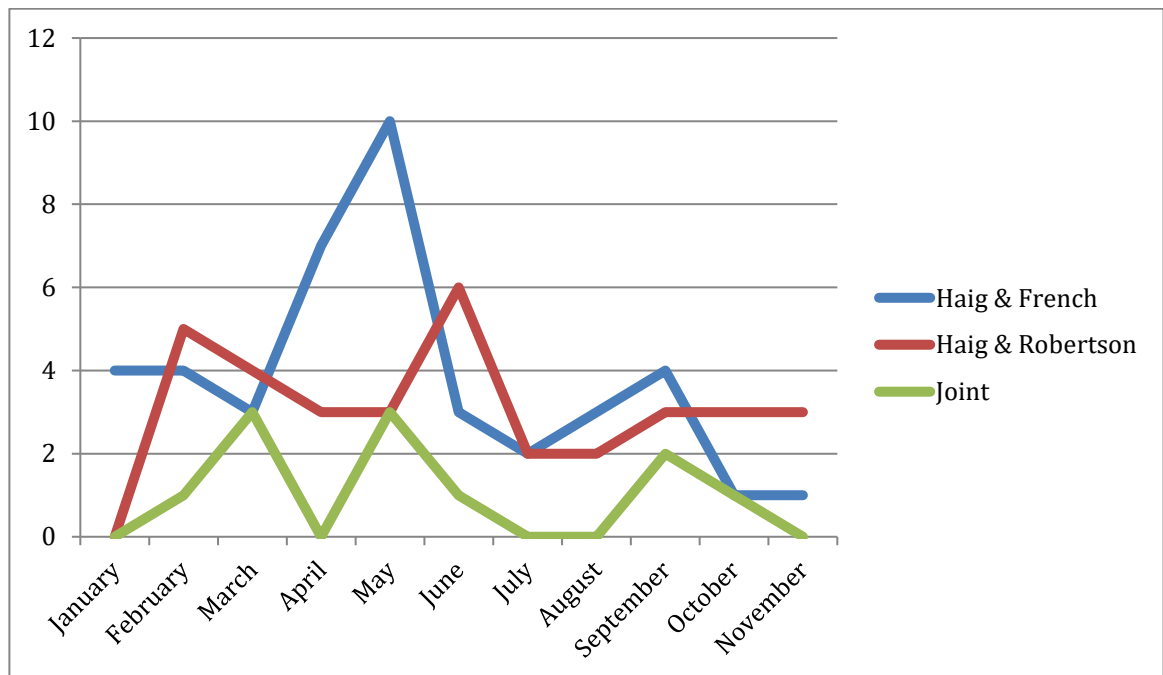
In February, March, June, October and November, Haig spent more time in meetings

¹⁰⁹ TNA, WO158/183/38, First Army Operations File, Robertson to Haig, 7 May 1915; TNA, WO158/183/80-81, First Army Operations File, Maurice to First Army, 8 June and 10 June 1915; NLS, Haig Papers, Acc.3155/101, Typescript Diary, 29 and 31 May 1915.

¹¹⁰ This data is based on the events as recorded in Haig's personal diary; while Haig specifically mentions joint conferences and meetings with French and Robertson others in which he met with French may well have included Robertson in some capacity.

with Robertson than with Sir John French. This reflects the changing dynamic between First Army and GHQ over the course of the 1915 campaign. Haig's relationship with French began to sour in late-March when Haig returned to First Army headquarters following a period of leave in England. He found that GHQ had ordered Sir Richard Butler, Haig's chief of staff, to amend the official despatch on the battle of Neuve Chapelle, substituting French's name for Haig's 'so the report now reads as if the action was taken on the orders of GHQ rather than First Army'.¹¹¹ In private Haig thought that 'the whole thing is so childish...it seems unmanly to wish to take the credit which really belongs to others!'.¹¹²

Figure 1.6: Monthly Meetings between First Army and GHQ War Managers, 1915



Source: NLS, Haig Papers, Acc.3155/100-103, Typescript Diary, 26 December 1914–21 December 1915.

¹¹¹ NLS, Haig Papers, Acc.3155/101, Typescript Diary, 27 March 1915.

¹¹² NLS, Haig Papers, Acc.3155/101, Typescript Diary, 31 March 1915.

Relations deteriorated further with the controversy surrounding the handling of the reserve XI Corps during the Battle of Loos. Confusion over whether command of the corps resided with GHQ or First Army meant that the 21st and 24th Divisions did not manage to exploit the initial break-in to the German positions; when they eventually arrived on the battlefield on 26 September, they were overwhelmed by the reinforced German defences and the chance of a breakthrough was lost.¹¹³ The argument which resulted increased a simmering tension between the two men, and Haig concluded that French was ‘incapable of realising the nature of the fighting which has been going on’.¹¹⁴ Robertson, himself sidelined by French in favour of the counsel of Sir Henry Wilson, became increasingly frustrated with French’s command style which ‘chopped and changed every day and was quite hopeless’.¹¹⁵ Following the Battle of Loos, communication between GHQ and First Army increasingly excluded Sir John French, as Haig and Robertson both lobbied for French’s removal from the position of commander-in-chief. As Figure 1.5 shows, Haig and French met only once in October and once in November before Haig succeeded French as commander-in-chief and Robertson was promoted to Chief of the Imperial General Staff in London.

The third means of information sharing between GHQ and First Army can be described as informal ‘back-channel’ communication in which officers acted outwith the formal

¹¹³ Current thinking suggests that neither Haig nor French were blameless in the poor handling of the reserves at Loos, see Lloyd, *Loos:1915*.

¹¹⁴ NLS, Haig Papers, Acc.3155/103, Typescript Diary, 5 October 1915.

¹¹⁵ Imperial War Museum, Private Papers of Field Marshal Sir Henry Wilson [afterwards IWM, Wilson Papers], Doc.2040, HHW1/24/2, Wilson Diary, 29 July 1915.

command structure. As Sir John French's position at GHQ became more isolated from late-August onwards, Robertson in particular used back-channel communication to pass information to the First Army. On 4 September, Robertson arrived at First Army headquarters to let Haig know 'very secretly and at once' that the Loos offensive had been postponed for another ten days, rather than wait for Sir John French to communicate the same information.¹¹⁶ Ten days later, at GHQ, Robertson provided Haig with information regarding discussions from the Inter-Allied conference at Chantilly on 14 September. As Haig recorded, 'the information I now got from the CGS was given to me privately and he begged me not to mention to the CinC that he had discussed the matter at all!'.¹¹⁷ Nor was Robertson the only member of GHQ staff who used back-channel communication; on 31 October, Colonel Frederick Maurice, Robertson's head of operations, wrote a 'personal and secret' letter to Haig regarding French's discussions on the despatch of troops to the Balkans.¹¹⁸ In this manner, GHQ staff circumvented their commander-in-chief and shared information with the First Army which was not shared with the Second and Third Armies. In a similar fashion, Haig learned of French's removal from command informally from Robertson, rather than from the War Office or from French himself.¹¹⁹ In the most part, information shared between GHQ and First Army existed at the political and strategic levels with commentary on operations at a minimum save for wishes of luck and expressions of thanks. As such, the top-down method of information sharing had little impact on the

¹¹⁶ NLS, Haig Papers, Acc.3155/102, Typescript Diary, 4 September 1915.

¹¹⁷ NLS, Haig Papers, Acc.3155/102, Typescript Diary, 15 September 1915, original italix.

¹¹⁸ NLS, Haig Papers, Acc.3155/103, Typescript Diary, 31 October 1915.

¹¹⁹ NLS, Haig Papers, Acc.3155/103, Typescript Diary, 25 November 1915.

organisational development of the First Army. However, as this section has shown, GHQ was able to influence the operational practices of the First Army in selecting the time and place of offensive actions. High-level communication breakdowns culminated in the senior war managers seeking back-channel rather than formal communication towards the end of the campaign, as the war managers jostled for position for the 1916 campaign.

Analysis of Haig's personal diary and the First Army war diary also reveals that communication between the different armies of the BEF was conspicuously absent throughout the 1915 campaign.¹²⁰ Haig met with Smith-Dorrien of the Second Army three times between the formation of the First Army on 25 December 1914 and 11 January 1915, and on each occasion the main topic for discussion was the employment of Kitchener's new armies, then training in Britain but soon expected as reinforcements.¹²¹ Thereafter, Haig met with Smith-Dorrien only once more, immediately prior to the opening of the Neuve Chapelle offensive. Haig shared Sir John French's poor opinion of the troops of the Second Army, and described them as having 'no initiative or real offensive spirit'.¹²² His opinion was shaped by a professional rivalry but also from experience; Kitchener selected Haig to inspect the Second Army in July to ensure their defensive arrangements were satisfactory – they were not, according

¹²⁰ On 4 October 1914, Smith-Dorrien sent Haig 'a few salient lessons of the war'. There is no indication that Haig reciprocated. See TNA, WO95/589, I Corps General Staff War Diary, Smith-Dorrien to Haig, 4 October 1914.

¹²¹ NLS, Haig Papers, Acc.3155/99-100, Typescript Diary, 29 December 1915, 4 January 1915, 11 January 1915.

¹²² NLS, Haig Papers, Acc.3155/102, Typescript Diary, 3 October 1915.

to Haig.¹²³ There appear to have been no attempts by either the First Army to learn from the defensive efforts of the Second Army at Ypres or, conversely, by the Second Army to learn from the multitude of offensive actions undertaken by the First Army in the campaign. However, once Haig was installed as commander-in-chief in late December 1915, weekly conferences between the First, Second and Third Army commanders and their staff were instituted to ‘ensure mutual understanding and closer touch’.¹²⁴ These conferences established a forum for high-level horizontal learning which had been absent in the 1915 campaign. Meetings in early-1916 focussed on the necessity for the uniformity of training, the supply of high-quality equipment to all parts of the BEF and the dissemination of lessons from recent fighting at Ypres.¹²⁵ The idea that information should be shared at army commander level was Haig’s and was one which he could only implement when in command of the BEF. The need for a standardisation of knowledge and its transfer throughout the wider organisation seems to have been a key lesson that Haig learned in war management from his experiences in the 1915 campaign.

While information was shared between GHQ and First Army both formally and informally, and there was little information shared between the armies, there was a third way in which knowledge-transfer in the First Army was affected from outside its own hierarchy. Chief among Haig’s external correspondents was the King. During a visit to London in July 1915, Haig was invited to Buckingham Palace to give his opinion on the

¹²³ NLS, Haig Papers, Acc.3155/102, Typescript Diary, 15 July 1915.

¹²⁴ NLS, Haig Papers, Acc.3155/103, Typescript Diary, 8 January 1916.

¹²⁵ NLS, Haig Papers, Acc.3155/103, Launcelot Kiggell, ‘Notes of a Conference of Army Commanders’, 24 January 1916 and 19 February 1916.

tension between Sir John French and Lord Kitchener, the Secretary of State for War. Haig noted that the King hoped correspondence could be continued ‘and said that no-one except he and W[igram, the King’s private secretary] would know what I had written’.¹²⁶ It was a correspondence Haig would cultivate as the campaign developed. In October, Robertson urged Haig to ‘write to friends in government’ to ensure that troops meant for the western front were not diverted to the Balkans.¹²⁷ While Haig stated that he ‘hate[d] intriguing in such a way’, he did agree to raise the topic with the King with whom he dined that evening.¹²⁸ Sir John French was acutely aware of Haig’s cordial relations with the British political establishment and was ‘evidently pleased’ when Haig informed him that he [Haig] ‘had seen no one of the Official world’ during a recent trip to London.¹²⁹ Similarly, French warned Haig not to speak to Lord Kitchener about forthcoming operations during the latter’s visit to the front in August.¹³⁰ Besides the King, Kitchener and Asquith, Haig also hosted Lord Esher, Viscount Haldane and members of Lloyd George’s ammunitions committee at First Army headquarters. It is clear that Haig was particularly politically well-connected and he used those connections to his advantage throughout the 1915 campaign. However, information largely flowed from First Army to other interested parties rather than their patronage influencing the operations of the First Army directly.

¹²⁶ NLS, Haig Papers, Acc.3155/102, Typescript Diary, 14 July 1915.

¹²⁷ NLS, Haig Papers, Acc.3155/103, Typescript Diary, 24 October 1915.

¹²⁸ NLS, Haig Papers, Acc.3155/103, Typescript Diary, 24 October 1915.

¹²⁹ NLS, Haig Papers, Acc.3155/100, Typescript Diary, 28 March 1915.

¹³⁰ NLS, Haig Papers, Acc.3155/102, Typescript Diary, 17 August 1915.

This section has demonstrated the extent to which the First Army was affected from outwith its own structure. It has shown that the largest input came from GHQ which was able to influence the planning of First Army's offensive actions by selecting the time and place of attacks to coordinate British and French battle plans. Communication between GHQ and First Army took three forms: the traditional transfer of knowledge through the issue of formal operational orders, normally of a general nature, the organisation of formal conferences and visits and informal lunches and dinners which provided platforms for the discussion of policy and plans; and informal back-channel communication which provided a useful way of circumventing formal command structures. As the campaign progressed, and the relationships between Haig and Robertson on one hand and Sir John French on the other deteriorated, face-to-face communication between GHQ and First Army lessened and back-channel information sharing increased. Secondly, this section has demonstrated that no attempts were made to transfer knowledge or share information between the First, Second and Third Armies within the BEF structure in the 1915 campaign. This style of high-level horizontal learning only began with Haig's elevation to commander-in-chief in December 1915. In the third place, the section has shown how actors from outside the military hierarchy communicated with First Army. External influence and the transfer of knowledge from outside the First Army hierarchy occurred at the political and strategic levels and while this had important implications for the overall running of the BEF, it had little real impact on the organisational development of the First Army, in terms of its operational and tactical adaptation.

The Anglo-French Framework for Knowledge-Transfer

Studies of the relationship between the British and French war management hierarchies in 1915 tend to focus on political and strategic decision-making regarding the opening of alternative fronts in Salonika and Gallipoli, and their influence on the timing of offensives on the western front.¹³¹ Despite the special instructions issued to Sir John French upon his departure from Britain in August 1914, which stated that the BEF was to ‘support, and cooperate with, the French Army against our common enemies’, the commander of the BEF tried to retain as much strategic independence from the French as his orders allowed.¹³² The early part of the 1915 campaign was characterised by confusion over French strategic plans. Sir William Robertson, writing shortly after the Battle of Neuve Chapelle in March, was aware that the French were planning offensive actions but noted that the British had been given ‘no clear idea as to the scope of the operations, nor of the general strategic conception upon which they are based’.¹³³ Problems at the strategic level were compounded by entrenched views of the military capabilities of the other. The French high command thought that the British were

¹³¹ See, for example, William Philpott, *Anglo-French Relations and Strategy on the Western Front, 1914–1918* (London, 1996), chapter 4; David French, *British Strategy and War Aims, 1914–1916* (London, 1986), chapters 4 and 5; Elizabeth Greenhalgh, *Victory through Coalition: Britain and France during the First World War* (Cambridge, 2005); Gary Sheffield, *Command and Morale: The British Army on the Western Front, 1914–1918* (Barnsley, 2014), chapter 2; Rhodri Williams, ‘Lord Kitchener and the Battle of Loos: French Politics and British Strategy in the Summer of 1915’, in Lawrence Freedman, Paul Hayes and Robert O’Neill (eds), *War, Strategy and International Politics* (Oxford, 1992), 117-32.

¹³² Edmonds, *British Official History, 1914*, Vol.1, Appendix 8, ‘Instructions to Sir John French from Lord Kitchener’, 444-5; William Philpott, ‘The Strategic Ideas of Sir John French’, *Journal of Strategic Studies* 12.4 (1989), 474.

¹³³ TNA, WO158/17, General Headquarters Operations File, Sir William Robertson, ‘General Staff Note on the Situation’, 14 March 1915.

‘lacking imagination, creatures of habit, slow to change [and] suspicious of all things foreign’, whereas the British looked down on the French due to their tendency to select officers from the middle rather than upper classes.¹³⁴ However, despite these unfavourable views, British war managers acknowledged early in the 1915 campaign that the best military results could only be achieved by the British and French armies working in close cooperation.¹³⁵

Elements of that cooperation can be viewed in terms of learning and knowledge-transfer. Communication between the British First Army and the French Tenth Army on their flank occurred in two main ways. First, knowledge was passed formally between high-level units through conferences and meetings; and second, knowledge was passed informally through visits, tours of trenches, and lunches. At a formal level, First Army was one step removed from the information sharing process. The passing of information between British GHQ and the French Grand Quartier General (CQG) was coordinated by Lieutenant-General Sir Henry Wilson and Colonel Victor Huguet, the heads of the respective missions at CQG and GHQ, respectively. Haig had a dislike of both men, describing Wilson as ‘the wicked intriguer’, who was inclined to side with the French during disputes, and he replaced Huguet when he took command of the BEF in December.¹³⁶ Perhaps as a result of this discord, neither Haig, nor any other First Army

¹³⁴ Sir John French quoted in Greenhalgh, *Victory through Coalition*, 7-8.

¹³⁵ TNA, WO158/17, General Headquarters Operations File, Sir William Robertson, ‘Government Military Policy’, 22 March 1915.

¹³⁶ NLS, Haig Papers, Acc.3155/141/84, Haig to Lady Haig, 26 January 1915; NLS, Haig Papers, Acc.3155/100, Typescript Diary, 1 March 1915; Sheffield and Bourne, *Douglas Haig: War Diaries and Letters*, 95, footnote 1.

war manager was present at formal Allied conferences in March, July, September or December. Rather, following a meeting with the French high command, Sir John French personally briefed Haig on proceedings. While this could be viewed as following the correct chain of command, by shutting out Haig the Allied conferences lost the input of an operational planner with considerable experience of the strategic conditions of the war, especially towards the end of the campaign. With Haig and the rest of the First Army staff excluded from the formal knowledge-transfer forum, the potential for learning through the experiences of others was severely limited.

To make up for this deficiency in the formal knowledge-transfer framework, the Allies increasingly used informal methods of communication to increase learning potential. In the planning phase of the Neuve Chapelle battle in late February, Haig liaised personally with General de Maud'huy, the commander of the French Tenth Army, positioned to the immediate south of the British First Army.¹³⁷ When the two men met, Haig was 'warmly received' with de Maud'huy commenting that the two 'were old friends'.¹³⁸ As a result of the meeting with de Maud'huy, Haig managed to secure support of the Tenth Army's artillery to protect the flank of the British attack at Neuve Chapelle. One factor greatly aided Haig's relationship with the French officers – his command of the French language. While Sir John French was notoriously bad at conversing in French and Foch and Weygand, his chief of staff, could not speak English, Haig proved remarkably

¹³⁷ Greenhalgh notes that Marshal Foch, the commander of the *Groupe Provisoire du Nord* (Army Group North) also authorised de Maud'huy to deal direct with Haig 'so as to ensure close cooperation': see Elizabeth Greenhalgh, *Foch In Command: the Forging of a First World War General* (Cambridge, 2011), 102.

¹³⁸ NLS, Haig Papers, Acc.3155/100, Typescript Diary, 28 February 1915.

proficient in communicating with French officers in their own language.¹³⁹ This was true to the extent that Lieutenant-Colonel Clive, a British staff officer attached to CQG, recalled that Haig was able to discuss things with the French first hand without anyone else present to assist with translation; John Charteris, Haig's chief of intelligence, went as far as to suggest that Haig could converse better in French than he could in English.¹⁴⁰ Haig realised that one of the keys to operational success was clear communication with the French. From July 1915 Haig began to develop his skills in the French language through daily, two-hour lessons with his liaison officer, Captain Gemeau; a practice which continued into Haig's tenure as commander-in-chief.¹⁴¹ De Maud'huy's successor as commander of the Tenth Army was General Victor d'Urbal. He too was impressed by Haig's attitude towards the French and expressed gratitude that Haig chose to discuss matters of cooperation with him direct rather than to involve GHQ and CQG.¹⁴² The ties between the two armies were solidified in May when the French were forced to postpone their attack on the Vimy Ridge, which was to be coordinated with the British battle at Aubers Ridge. In the face of Sir John French's anger on the matter, Haig backed d'Urbal's standpoint and diffused a tense situation.¹⁴³

As a result of the near success of the Battle of Neuve Chapelle, the level of informal communication between Haig and the French increased. As early as a week after the battle, Haig heard that the French general staff were 'much impressed' by the First

¹³⁹ Greenhalgh, *French Army*, 9-10.

¹⁴⁰ Lieutenant-Colonel Clive to Lord Esher, 9 January 1916, quoted in Greenhalgh, *Victory through Coalition*, 10; John Charteris, *Haig* (London, 1932), 152.

¹⁴¹ Harris, *Douglas Haig and the First World War*, 201-2.

¹⁴² NLS, Haig Papers, Acc.3155/102, Typescript Diary, 24 July 1915.

¹⁴³ NLS, Haig Papers, Acc.3155/101, Typescript Diary, 9 May 1915.

Army's methods of attack in breaking in to the Neuve Chapelle defences.¹⁴⁴ The following month, Marshal Foch, commander of the French Northern Army Group, and General Weygand visited Haig to learn first hand the methods First Army had used in the attack and what lessons they had subsequently drawn from it. Haig produced a written report which was forwarded to Marshal Joffre who, in turn, disseminated it to each of his corps commanders.¹⁴⁵ The lessons which the French learned from Haig were applied practically in the opening phase of the Second Battle of Artois (9–11 May) and were also included in French Army doctrine through the drafting and dissemination of a paper known informally as 'Note 5779'.¹⁴⁶ This document contained early drafts of key concepts which would shape French offensive policy not only for the rest of 1915 but also for subsequent campaigns. The conclusions drawn by Marshal Petain from the Second Battle of Artois – and enshrined in Note 5779 – highlighted that a breakthrough was possible given sufficient preparation and a predominance of artillery, which echoed the conclusions of the British First Army war managers based on their experience of Neuve Chapelle.¹⁴⁷ Indeed, Petain's report specifically mentioned that the British experience at Neuve Chapelle provided lessons of how a trench-to-trench attack would unfold. As both Krause and Greenhalgh have shown, in the 1915 campaign the French were keen to learn lessons quickly at both the operational and tactical levels.¹⁴⁸ This is a key example of information sharing and knowledge-transfer affecting the organisational

¹⁴⁴ NLS, Haig Papers, Acc.3155/100, Typescript Diary, 21 March 1915.

¹⁴⁵ NLS, Haig Papers, Acc.3155/101, Typescript Diary, 19-20 April 1915.

¹⁴⁶ Jonathan Krause, *Early Trench Tactics in the French Army: The Second Battle of Artois, 1915* (Farnham, 2013), 5-9. In French, the doctrinal document was called *But et conditions d'une action offensive d'ensemble*.

¹⁴⁷ Petain, quoted in Krause, *Early Trench Tactics*, 6.

¹⁴⁸ Krause, *Early Trench Tactics*, 165; Elizabeth Greenhalgh, *The French Army in the First World War*, (Cambridge, 2014), 88.

development of the French Army. As a result of the lack of a formal system for Inter-Allied knowledge-transfer, French commanders sought out the most recent information, considered it, disseminated it, incorporated it into a battle plan and then enshrined it into official doctrine.

Despite the successes of the information sharing between Haig, Foch and Joffre in April, the British made no attempt to replicate the endeavour nor to actively seek out French advice from their experiences. On 22 July, Joffre asked that Haig spend the day with French staff officers at CQG, suggesting that he was keen to cultivate the relationship. Haig acknowledged that he needed Sir John French's approval for such a visit and, as no visit occurred, it is reasonable to assume that permission was denied. While this could have been a manifestation of Sir John's determination to maintain strategic independence as per his orders of August 1914, by denying information sharing between the allies he reduced the potential for reciprocal learning. Despite this, elements of French lessons learned were passed to the British high command. In June 1915, GHQ published translations of French doctrinal documents in the form of both a version of Note 5779 from 16 April and an amended version from 20 May.¹⁴⁹ However, while the intended audience of this document and the extent to which it was disseminated throughout the BEF cannot be ascertained, there are similarities between the lessons drawn from it and changes in Haig's thoughts on future operations. The 20 May amended version of Note 5779 (published by GHQ as *SS.23*) alluded to the necessity of

¹⁴⁹ The original version of Note 5779 was called *SS.24, Object and Conditions of Combined Offensive Action*, and its successor was *SS.23, Preliminary Deductions for Instruction, from Recent Engagements*.

‘simultaneous and coordinated attacks, delivered on a broad front’.¹⁵⁰ In a meeting with Robertson on 18 June, Haig used the same terminology for the first time and suggested that Robertson ‘did not seem to understand the necessity for attacking on a broad front in order to make sure of breaking through’.¹⁵¹ By the first week of July, Haig’s chief of staff, Major-General Sir Richard Butler, had drafted a paper entitled ‘Memorandum on the Strength of Force required for an Attack on a Front of 25 miles’ which anticipated making an attack on a scale far larger than anything the BEF had previously undertaken.¹⁵² The subsequent Battle of Loos in September 1915 saw the BEF adopt these principles and attack on a wider front as part of a larger allied action. Inter-Allied knowledge-transfer was a largely informal process, which was driven by the desire of French high command to learn from the British experience. This and the subsequent incorporation of knowledge into both French and then British strategic thinking illustrates that horizontal learning was not restricted to front line units as suggested by Foley but also occurred in a meaningful way at higher levels of the war management hierarchy and between national militaries within a wider alliance.

Conclusion

In examining the formation and development of the First Army over the course of the 1915 campaign, this chapter has highlighted three areas which affected the First Army’s organisational development: institutional structure, organisational memory, and the use

¹⁵⁰ IWM, GHQ, SS.23 - *Preliminary Deductions for Instruction, from Recent Engagements*, 20 May 1915 [translated June 1915], 2.

¹⁵¹ NLS, Haig Papers, Acc.3155/101, Typescript Diary, 18 June 1915. He reiterated this point in a letter to Clive Wigram on 27 June.

¹⁵² TNA, WO158/184, First Army Operations File, Sir Richard Butler, ‘Memorandum on the Strength of Force Required for an Attack on a Front of 25 Miles’, July 1915.

of formal and informal knowledge-transfer frameworks. The study of the creation of the First Army supports Martinez-Leon and Martinez-Garcia's conclusions that an organisation's structure plays an important role in its learning process. The insertion of a new layer of management into the existing BEF hierarchy actively impeded the organisational development of the First Army by failing to consider who should take responsibility for the army's professional development and by failing to establish a formal system for knowledge capture. These problems were exacerbated by the decision to rotate divisions through different corps. When lessons were identified, the movement of divisions from their place in the structure meant that the lessons they had identified were carried with them and were lost to the higher formation. This put the onus on divisions to consider their own experiences outside the wider First Army structure and assume the role of *ad hoc* learning organisations. The failure to establish a formal framework for creating, collating and disseminating new knowledge had important implications for the First Army's organisational memory. This chapter has demonstrated that the potential to create new knowledge resided with the officers who survived a particular battle and were tasked with the creation of after-action and lessons-learned reports. In several cases the casualty rate in individual battalions was so high that no officers remained who were able to consider their experiences and share their conclusions. Catignani's study of the British Army in the Helmand Campaign in Afghanistan found that at any stage of the learning process new knowledge can be lost. This chapter has shown that the loss of knowledge played an important role in the organisational development of the First Army in 1915 not only in terms of the changes in organisational structure but also through the challenges of managing that knowledge

within the army's institutional memory. Indeed, the high casualties suffered by the First Army increased the difficulties in turning individual knowledge into institutional knowledge by reducing the maximum potential to create new knowledge.

In lieu of a formal framework for data capture and information sharing the war managers of the First Army increasingly turned to a variety of informal methods for knowledge-transfer. The 1915 campaign was characterised by political gamesmanship and poor communication within the BEF. Throughout the campaign Sir John French was removed from much of the operational planning and was content with setting the parameters for offensive action in terms of time and place of attack. When constructing a model of how the First Army developed over the campaign instruction from GHQ represents an important short-term input to the First Army's battle planning process.¹⁵³ Inasmuch as there was no formal system for creating and collecting new data in the BEF, there was no formal attempt to transfer knowledge between the other British armies on the western front until Haig became Commander-in-Chief in December 1915. By then, Haig appeared to have realised, at least in part, the benefits of information sharing between army commanders, although his creation of formal weekly knowledge-transfer meetings could be seen as being designed to keep a tighter control on his subordinates. At the level of inter-allied knowledge-transfer, the exclusion of the First Army war managers from the information sharing process encouraged more informal methods of knowledge-transfer. Indeed, the visits of French general and staff officers to First Army headquarters to study Haig's battle planning methodology and to learn from

¹⁵³ The inputs to the Organisational Development Model will be discussed in Chapter Two

his experiences of the Battle of Neuve Chapelle marked the origin of their attempts to learn from the British experience. That the French quickly published and disseminated these lessons indicates that they understood that the institutionalisation was a crucial part of organisational learning. The British also appear to have realised this, albeit belatedly and partially, and only sought to publish their own version of documents once they had been received back from the French.¹⁵⁴ However, the example of the British and French war managers sharing information extends the horizontal learning concept to include not only the low-level front line units identified by Foley for the German Army, but also senior Allied war managers who sought to learn from each other's experiences. Additionally, while Foley's idea of horizontal learning was limited to a formal knowledge exchange system, this chapter has demonstrated that horizontal learning also occurred on an informal basis.

¹⁵⁴ The processes of institutionalisation of lessons learned through training and doctrine creation is discussed in Chapter Five.

Chapter Two

Organisational Development at the Operational Level

One would think our commanders had enough experience now to know what is practicable and what is not, but if they do know this, they do not act on their knowledge.¹
Major-General Sir Henry d'Urban Keary

Learning in large institutions, such as national armed forces, takes place at a number of different levels. Millett, Murray and Watman identified four levels of military activity: political, strategic, operational and tactical.² The political level involves the cooperation of the military and civilian elites in obtaining financial, manpower and munitions resources and converting them into military capabilities and the strategic level sees the use of national militaries to achieve the goals defined by the political leadership.³ This thesis follows the example set by Jonathan Boff's study of the British Third Army in the Hundred Days campaign of 1918 in not addressing the grand political and strategic questions on the conduct of the Great War.⁴ Rather, this thesis contends that analysis of the organisational development of the First Army is best served by studying institutional change at the operational and tactical levels. This chapter examines how the First Army learned from its experiences at the operational level of war. Delineating the various levels of war is not a straightforward matter: Millett, Murray and Watman concluded that the four categories overlap; and Milan Vego asserted that the boundaries between

¹ IWM, Papers of Lieutenant-General Henry d'Urban Keary, Doc.2160 [hereafter, IWM, Keary Papers], Henry Keary to Frank Keary, 30 May 1915.

² Allan Millett, Williamson Murray and Kenneth Watman, 'The Effectiveness of Military Organisations', in Allan Millett and Williamson Murray (eds), *Military Effectiveness. Volume 1: The First World War* (Cambridge, 2010), 3.

³ Millett, Murray and Watman, 'Effectiveness of Military Organisations', 4-7.

⁴ Boff, *Winning and Losing on the Western Front*, 4-5.

the levels of war are not constant inasmuch as the relationship between them depends on the circumstances of a particular war.⁵ However, in broad terms, the operational level of war sees available resources used to attain strategic goals through the analysis, planning and conduct of offensive operations in a specific campaign.⁶ In terms of the army hierarchical structure, the split between the operational and tactical levels of war occurs between the levels of corps and divisional command.⁷ Andy Simpson asserted that for the soldiers of the Great War the operational level of war normally referred to corps or army-level operations.⁸ This thesis follows the broad acceptance that the operational level of war concerns large-unit operations undertaken by corps and armies, whereas smaller actions – such as the ‘Affair at Cuinchy’ in February 1915 in which the British 2nd Division recovered ground lost the previous month – are better termed ‘tactical actions’.

Over the course of the 1915 campaign the First Army planned and conducted five large offensive operations: Neuve Chapelle in March, Aubers Ridge and Festubert in May, Givenchy in June, and finally Loos in September and October. Analysis of these operations forms the basis of this chapter. It focuses on the activities of the headquarters

⁵ Millett, Murray and Watman, ‘Effectiveness of Military Organisations’, 3; Milan Vego, *Joint Operational Warfare: Theory and Practice* (Washington DC, 2009), II-18.

⁶ David E. Johnson, *Learning Large Lessons: The Evolving Roles of Land Power and Air Power in the post-Cold War Era* (Santa Monica, CA, 2006), 17; Millett, Murray and Watman, ‘Effectiveness of Military Organisations’, 12.

⁷ Christopher Tuck, ‘The Future of Warfare’, in David Jordan et al., *Understanding Modern Warfare* (Cambridge, 2016), 447; Elizabeth Snoke (ed.), *The Operational Level of War: An Historical Bibliography* (Fort Leavenworth, 1985), v. Snoke noted that ‘the line between operational and tactical levels of war is blurred at the corps and divisional level’ while Tuck asserted that the Indian Army informally began to recognise the operational level of command as sitting at the corps level from the late 1980s.

⁸ Simpson, *Directing Operations*, xv.

of the First Army headquarters and the I, IV and Indian Corps which were responsible for planning and undertaking offensive operations in the campaign.⁹ The chapter addresses two main questions. First, what factors shaped the war managers' decision-making processes in the 1915 campaign? Second, what methods did they use for data creation and collection and how did this change over the course of the campaign? Finally, this chapter presents the first three layers of the Organisational Development Model for the operational level of war and highlights how the First Army's senior war managers – at corps and army level – learned in the campaign. In terms of structure, the chapter first evaluates the 'organisational learning inputs', which formed the base for subsequent operational activity before considering how learning occurred during the campaign.

Identifying Organisational Learning Inputs

Serena's work on US military adaptation in Iraq has shown that 'organisational inputs help shape how the army conducts operations in pursuit of its institutional missions and goals'.¹⁰ For the British First Army in the 1915 campaign five linked inputs can be identified. Taken together these represent the first stage in the Organisational Development Model. These inputs are both institutional and personal in nature and occur in the long, medium and short term. The first two inputs recognise that for the British war managers the processes of organisational and individual learning did not

⁹ During the Battle of Loos the III and XI Corps were also involved in offensive actions, however their activities were limited to a diversionary attack on 25 September and a follow-up attack on 26 September, respectively.

¹⁰ Serena, *A Revolution in Military Adaptation*, 44.

begin with the 1915 campaign on the western front. Rather, their decision-making was based on an accumulation of knowledge which was split into that gained through formal instruction and knowledge gained through consideration of their own experiences of warfare both in the medium-term prior to the Great War and also in the short-term as the conflict progressed. The third and fourth inputs are linked, being the prevailing institutional ethos of the British Army and the existing doctrine which set the parameters for offensive operations. The final input to the Organisational Development Model for the First Army is the short-term immediate strategic conditions of battle as set by GHQ, both in terms of the provision of resources and by determining the date and location of offensive actions.

The war managers' existing knowledge base can be said to constitute the platform upon which their future learning was built. On a formal level, the war managers' ability to adapt were influenced by knowledge gained through instruction during their initial officer training at either Sandhurst or Woolwich, and then, for some, from their experiences of the staff college at Camberley. From 1892, the staff college became a 'school of thought' in which the Professor of Military Art and History, Colonel G.F.R. Henderson sought to use military history as a means through which future staff officers could draw 'valuable lessons on every aspect of tactics and strategy'.¹¹ During Henderson's tenure at the staff college he focussed on teaching the lessons of the American Civil War, in particular the strategy of Stonewall Jackson, and concluded that

¹¹ Field Marshal Lord Roberts, 'Memoir' in Neill Malcolm (ed.), *The Science of War: A Collection of Essays and Lectures 1891-1903, by the late Colonel G. F. R. Henderson* (London, 1912), xxix.

that war had demonstrated that ‘a superiority of fire...decides the conflict’.¹² However, it has been suggested that officers learned the wrong lessons from Henderson’s teachings, becoming ‘captivated by the romantic elan’ of Jackson’s campaigns rather than learning the tactical lessons of the increase in firepower.¹³ Henderson’s teachings left a lasting impression on Haig, who graduated from the staff college in 1898 with a belief that the key to modern warfare was the decisive defeat of the main enemy army.¹⁴ The continued importance of the early professional education of the war managers was demonstrated at a conference at First Army headquarters on 6 September 1915, when Haig noted that the planning process for the Battle of Loos was based on the ‘principles which were taught by the late Colonel Henderson at Camberley’.¹⁵ By the start of the 1915 campaign, the officers who occupied the senior war management positions in the First Army, with the exception of Sir James Willcocks of the Indian Corps, were all graduates of the British staff college. The junior staff officers in 1915 - brigade majors and staff captains - were usually graduates, either of Camberley or of the new staff college in Quetta. Indeed, at the end of the 1914 campaign some 93% of the members of the British General Staff ‘G’ Branch, who had responsibility for offensive planning, were graduates of one of the staff colleges; by the end of the 1915 campaign the number

¹² G. F. R. Henderson, ‘Tactics of the Three Arms Combined’, in Neil Malcolm (ed.), *The Science of War: A Collection of Essays and Lectures 1891-1903, by the late Colonel G. F. R. Henderson* (London, 1912), 71.

¹³ Keith Simpson, ‘Capper and the Offensive Spirit’, *Journal of the Royal United Services Institute* 118.2 (June 1973), 52.

¹⁴ Douglas Scott (ed.), *The Preparatory Prologue: Douglas Haig, - Diaries and Letters 1861–1914* (Barnsley, 2006), 60; De Groot, *Douglas Haig*, 50-1.

¹⁵ TNA, WO95/711, IV Corps General Staff War Diary, ‘Notes on First Army Conference on Monday, 6th September 1915’. This document is also found in the private papers of Major-General Sir Richard Butler, the chief of staff of the First Army in 1915. See IWM, Private Papers of Lieutenant-General Sir Richard Butler, Doc.14150, I/1.

had fallen to 71% as the pool of trained staff officers was eroded by war service.¹⁶ While over the course of the Great War the number of officers who had passed the staff college course diminished significantly, in the 1915 campaign the knowledge gained through formal instruction remained an important influence in planning offensive actions.

The second form of knowledge with which the war managers began the 1915 campaign was knowledge gained through consideration of their own professional experiences. This can be broken down into two sections: knowledge gained in the campaigns before the war and knowledge gained through fighting in 1914. In the fifty years prior to the Great War the British Army was largely employed in ‘imperial policing duties’ which often involved the fighting of ‘small wars’ against a technologically inferior enemy.¹⁷ The fighting of these wars represented the war managers’ only practical experience of war prior to 1914: of the war managers who crossed to France in August 1914, 88% had seen active service in one of more of Britain’s small wars.¹⁸ While 69% had seen service in the Boer War, 53% had also gained experience in fighting colonial wars across Asia and Africa in the late-nineteenth century.¹⁹ The Boer War had proven to be a catalyst for change in the British Army by demonstrating the challenges in attacking a

¹⁶ Paul Martin Harris, ‘The men who planned the war: A Study of the Staff of the British Army on the Western Front, 1914–1918’, unpublished PhD thesis, King’s College London (2014), 199.

¹⁷ Nolan, *Military Leadership*, 45; Charles Callwell, *Small Wars: Their Principles and Practice* (Lincoln, 1996).

¹⁸ Robbins, *British Generalship on the Western Front*, Appendix 9, 209.

¹⁹ Robbins, *British Generalship on the Western Front*, Appendix 9, 209.

well-armed and tactically astute enemy across the fire-swept zone of battle.²⁰ It highlighted that the initiative in battle had passed to those who stood on the defensive, protecting their troops and forcing the enemy to attack them over open ground. Establishing a superior base of firepower from machine-guns, artillery and well-aimed rifle fire became the dominating principles, with the bayonet rendered largely obsolete.²¹ This meant that for the British war managers successful future offensives would involve the concentration of troops against the weakest point of the enemy position from which 'long and exhausting' attacks in the form of 'methodical progression from point to point, each successive advance being deliberately prepared and executed'.²² The main lesson taken from the Boer War, then, was that fire-power had become the decisive factor in battle.

While this lesson of war was identified, or rather remembered, by Sir William Robertson in February 1915, events between the Boer War and Great War caused it to be forgotten. The battles of the Russo-Japanese War (1904–05) demonstrated that victory could still be achieved through frontal bayonet attacks on prepared positions, albeit at the cost of extraordinarily high casualties, as long as the troops were imbued with the spirit of the offensive and displayed strong moral qualities.²³ Some British observers reported that the Russians lost the war despite having the advantage in terms of number of soldiers and quality of artillery and concluded that offensive elan was the key to operational

²⁰ Spencer Jones, *From Boer War to World War: Tactical Reform of the British Army, 1902–1914* (Norman, OK, 2013), 23.

²¹ Bidwell & Graham, *Fire-power*, 47; Simpson, 'Capper and the Offensive Spirit', 52.

²² Simpson, 'Capper and the Offensive Spirit', 52.

²³ Simpson, 'Capper and the Offensive Spirit', 51, 53.

success.²⁴ However, more astute commentators, typically from the British Army's artillery and engineering corps maintained a focus on the importance of a firepower advantage and identified alternative lessons such as the need to increase the number of howitzers, machine-guns, mortars and grenades, and suggested that alternative methods of offensive action, such as night attacks, should be incorporated into British operational thinking and training.²⁵ In practice, the former position dominated. Speaking at the annual staff college conference in 1910, the then Director of Staff Duties Brigadier-General Launcelot Kiggell, commented that 'everyone admits' that firepower was not the decisive factor in battle and asserted that 'victory is now won actually by the bayonet, or by the fear of it'.²⁶ The practical experience of the Boer War and the theoretical experience of the Russo-Japanese War created the base of knowledge with which the British war managers went to war in 1914.

The outbreak of the Great War interrupted the wider institutional learning process which had been gaining momentum in the British Army in the late-nineteenth and early-twentieth centuries as a result of its participation in imperial small wars.²⁷ Despite this, the war managers were quick to react to the challenges of a continental war, modifying tactics and readily incorporating new technology to improve the effectiveness of the

²⁴ Philip Towle, 'The Russo-Japanese War and British Military Thought', *Journal of the Royal United Services Institute* 116 (December 1971), 65.

²⁵ Towle, 'Russo-Japanese War', 65.

²⁶ Launcelot Kiggell, quoted in Tim Travers, 'The Offensive and the Problem of Innovation in British Military Thought, 1870–1915', *Journal of Contemporary History* 13 (1978), 531.

²⁷ Nolan, *Military Leadership*, 45-6.

BEF.²⁸ Brigadier-General Henry Horne, the artillery commander (CRA) of I Corps noted in 1914 how the BEF achieved ‘good results’ in using observers in aeroplanes to improve ‘the efficiency of our artillery’ and to ‘compensate for the superiority in armaments of the Germans’.²⁹ Horne took the lead in seeking to learn lessons from the opening campaign, concluding as early as September 1914 that ‘this war is really an artillery war’.³⁰ While this stance is perhaps unsurprising given Horne’s background as an artilleryman it does demonstrate a willingness to engage with his experiences, identify lessons and incorporate them into operational planning. At a lower level of command, the experiences of Major G. V. Horden, GSO2 of the 8th Division, led him to suggest, in January 1915, that ‘to attack the line by a general advance in force along the whole front had been proven by previous experience to be a method to be avoided if possible’.³¹ Horden’s assessment, while astute, was not adopted as standard practice by the formation’s war managers. Elements of the Indian Corps sought to utilise their ‘north-west frontier training’ to conduct small localised attacks aimed at infiltrating the German lines, a tactic more commonly associated with the German Army in the post-Somme period or the British in the Hundred Days campaign in 1918.³² Attempts were also made to consolidate and disseminate the lessons learned from the 1914 campaign, even as they were occurring. A series of pamphlets entitled *Notes from the Front* was

²⁸ Nikolas Gardner, *The Beginning of the Learning Curve: British Officers and the Advent of Trench Warfare, September–October 1914* (Salford, 2003), 1.

²⁹ IWM, Horne Papers, Doc.12468, Henry Horne, ‘Notes on Artillery during the attacks of 13th and 14th [September 1914] and subsequent operations on the Aisne’ quoted in Robbins, *British Generalship during the Great War*, 65-6.

³⁰ IWM, Horne Papers, Doc.12468, Horne to Lady Horne, 24 September 1914.

³¹ TNA, WO95/707, IV Corps General Staff War Diary, Major G. V. Horden, ‘Memorandum on the Attack of Neuve Chapelle’, 23 January 1915.

³² Morton-Jack, *Indian Army on the Western Front*, 187-96.

produced by GHQ from November 1914.³³ The first of these informal publications, written by ‘a General Officer at the front’ and augmented with the comments of various contributors of different ranks, emphasised the necessity to screen defensive positions from the enemy’s artillery, the concealment of important positions from the enemy’s aircraft, and cooperation between British ground and air forces.³⁴ However, those drafting the ‘Notes’ still retained elements of pre-war thinking in late-1914, through the passing on of advice on the most effective means to cross rivers, a skill which was rendered obsolete from November 1914 with the onset of trench warfare. For Haig, as the general officer commanding the I Corps, the experiences of the 1914 campaign were mixed. While his performance in the retreat from Mons was subject to some scrutiny, his leadership during the First Battle of Ypres was considered to have been instrumental in saving the position.³⁵ However, in considering his own experiences of the 1914 campaign, Haig concluded that ‘there seems to be nothing new to be learnt, only [to] pay attention to [the] old principles’ of war.³⁶ Those principles paid more attention to the British army’s institutional ethos and operational doctrine than to practical lessons drawn from the opening campaign of the conflict.

³³ IWM, GHQ, *CDS.2 - Notes from the Front - Part 1*, November 1914; IWM, GHQ, *CDS.3 - Notes from the Front - Part 2*, December 1914; IWM, GHQ, *CDS.4 - Notes from the Front - Part 3*, January 1915.

³⁴ IWM GHQ, *Notes from the Front - Part 1*, November 1914.

³⁵ See, for example, Elizabeth Greenhalgh, ‘Did Sir Douglas Haig panic and Landrecies in August 1914 during the Great Retreat’, *Journal of the Society of Army Historical Research* 93.3 (Autumn 2013), 226-56; Nikolas Gardner, *Trial by Fire: Command and the British Expeditionary Force in 1914* (Wesport, 2003).

³⁶ Liddell Hart Centre for Military Archives, Private Papers of Lieutenant-General Sir Launcelot Kiggell [hereafter LHCMA, Kiggell Papers], Haig to Kiggell, 4 October 1914.

Institutional ethos represents the third input to the first stage of the Organisational Development Model. Ethos can be described the prevailing character of the British Army, through which the institution's members interpreted the nature of the war, identified problems and posed solutions, and implemented change.³⁷ In general terms, the ethos of the British war managers was manifested through a sense of fair play, gentlemanly conduct, obedience, loyalty, and self-sacrifice.³⁸ For Tim Travers, the ethos of the British Army shaped the paradigm of war in which the war managers operated by emphasising the importance of discipline and morale, conducting a vigorous offensive and continuously seeking out the decisive war-winning blow.³⁹ It was fostered through the regimental system in which a soldier's regiment became his family and his bravery and stoicism in battle added to regimental traditions. This ethos was displayed by Brigadier-General Edward Bulfin, the commander of 2 Brigade, at a meeting with Haig on 20 September 1914 when he remarked that during the Battle of the Aisne his brigade 'never asked to be relieved...we would have held our trenches until we were all destroyed'.⁴⁰ This bravery and self-sacrifice was, according to Haig, the display of 'fine soldierly qualities'.⁴¹ Similarly, when the 2nd West Yorkshires retreated from their trenches in the face of a German attack on the same day Haig asked them to immediately attack in order to 'regain their good name and reputation'.⁴² For Haig, a failure of courage in battle stemmed from a loss in morale and discipline and which was

³⁷ Fox-Godden, 'Putting Knowledge into Power', 28.

³⁸ Robbins, *British Generalship on the Western Front*, 1-17; Fox-Godden, 'Putting Knowledge into Power', 25-57.

³⁹ Tim Travers, 'Learning and Decision-Making on the Western Front, 1915–1916: The British Example', *Canadian Journal of History* 18.1 (April 1983), 92-93.

⁴⁰ NLS, Haig Papers, Acc.3155/98, Typescript Diary, 20 September 1914.

⁴¹ NLS, Haig Papers, Acc.3155/98, Typescript Diary, 20 September 1914.

⁴² Haig quoted in Gardner, *The Beginning of the Learning Curve*, 9.

brought about by prolonged periods on the defensive.⁴³ In senior officers, this failure was often characterised by a loss in ‘offensive spirit’. For Major-General Sir Thompson Capper, who would go on to command the 7th Division in the 1915 campaign, the basic ethos for all ranks was the ‘determination to conquer or die’ in the attempt.⁴⁴ This ethos was also displayed by Major-General Sir Richard Haking, the commander of the 1st Division and then XI Corps in the 1915 campaign. Haking, in a lecture to his division in April 1915 announced that ‘I can tell you that nether I nor my brigadiers will stop until we have used up every man we have got to drive these Germans from the field of battle’.⁴⁵ The British focus on the offensive was underpinned by the example of the Japanese victory over the more defensive, firepower-driven Russians in 1905 and was reinforced by the failure of the Germans to press home their offensives during the First Battle of Ypres in November 1914.⁴⁶

The fourth input – the existing, albeit rather limited, doctrine of the British Army – overlaps with the institutional ethos. Doctrine provides large military institutions with a common outlook and a uniform basis of operations through the provision of approved principles and methods.⁴⁷ In short, it is ‘the institutionalised beliefs about what works in war and military operations’ based on an organisation’s past experiences and predictions

⁴³ Gardner, *Beginning of the Learning Curve*, 9.

⁴⁴ Liddell Hart Centre for Military Archives, Papers of Major-General Sir Thompson Capper [afterwards LHCMA, Capper Papers], 2/4/16, Sir Thompson Capper, ‘The Principles of Strategy’, June 1908.

⁴⁵ TNA, WO95/1228, 1st Division General Staff War Diary, ‘Lecture on the Attack by Major-General Sir Richard Haking’, April 1915.

⁴⁶ Sheffield, *The Chief*, 98.

⁴⁷ Harald Hoiback, *Understanding Military Doctrine: A Multi-Disciplinary Approach* (London, 2013), 9-10.

for future conflict.⁴⁸ The British Army of the Great War was inherently suspicious of formal rules and proscribed practices, preferring to maintain a flexible approach appropriate for the diverse nature of British global military commitments. This pragmatism was allied to a tendency towards anti-intellectualism among senior war managers, which rejected theory and doctrine and promoted experience, initiative, intelligence and common sense.⁴⁹ The anti-intellectual approach was typified by Major-General Sir Thompson Capper who asserted that ‘war is an art, and not a science’.⁵⁰ The prevailing opinion in British military thinking prior to 1914 emphasised that the next war would be won in a single campaign rather than a protracted engagement. This meant that not only did Britain lack a strategy for fighting in the long-term, its army did not have the inclination nor apparatus to continually evaluate and formulate doctrine.⁵¹ While the British Army eschewed a formal doctrine in the Great War, the closest thing was the Field Service Regulations (FSR), a two-part publication from 1909 drawn up under the auspices of Haig in his then role as Director of Staff Duties at the War Office, and a development which represented an ‘important advance in British military thinking’.⁵²

⁴⁸ Hoiback, *Understanding Military Doctrine*, 10. See also Albert Palazzo, *Seeking Victory on the Western Front: The British Army and Chemical Warfare in World War I*, (Lincoln, NE, 2000), 8-10.

⁴⁹ Travers, *Killing Ground*, 37-41; Murray, *Military Adaptation in War*, 83.

⁵⁰ LHCMA, Capper Papers, 2/4/1, Sir Thompson Capper, ‘Lecture on the Strategic Exercise set to the Senior Division at the Staff College’, 1908. Capper’s original emphasis.

⁵¹ Sanders Marble, *British Artillery on the Western Front in the First World War* (Farnham, 2013), 60.

⁵² See, *Field Service Regulations, Part 1 - Operations* (London, 1909) and War Office, *Field Service Regulations, Part 2 - Organisation and Administration* (London, 1909); Jones, *From Boer War to World War*, 37.

Sheffield has described the FSR as being ‘an organisational and administrative manual for the army in the field that also served as a rudimentary doctrine’.⁵³ It was a flexible and adaptable document which emphasised decision-making based on the experience and best-judgement of the commander on the spot. Throughout the campaign, and indeed the war, Haig viewed the FSR as the basis of the BEF’s operations.⁵⁴ The FSR viewed battle as a structured, four-stage process in which the enemy was engaged on a wide front, his reserves were forced to be drawn in and exhausted, the decisive blow was dealt and finally a sweeping cavalry charge routed the defeated enemy.⁵⁵ Andy Simpson, in his work on corps command, highlighted the importance of FSR on the thinking of senior war managers and demonstrated that they consistently applied the regulations to battle planning, albeit his work focussed more on the post-Somme period.⁵⁶ That the senior British war managers considered their actions in terms of the FSR in the 1915 campaign can be demonstrated by examining Sir William Robertson’s lessons learned report following the Battle of Neuve Chapelle in March 1915. In the report, Robertson concluded that the battle split into two distinct phases – the preparatory action and the decisive attack – and noted that they corresponded with the textbook style attack as presented in the FSR.⁵⁷ In a letter from GHQ to First Army Headquarters during the same time, Robertson explained how the concept of the four-stage battle related to the entrenched conditions on the western front. Following the experience of Neuve Chapelle, Robertson noted that ‘It is however always understood

⁵³ Sheffield, *The Chief*, 60.

⁵⁴ Simpson, *Directing Operations*, 5.

⁵⁵ Lloyd, ‘With Faith and Without Fear’, 1059-60; Travers, *Killing Ground*, chapter 4.

⁵⁶ Simpson, *Directing Operations*.

⁵⁷ TNA, WO158/17, General Headquarters Operations File, ‘General Staff Notes on the Offensive’, n.d. [but late-March 1915].

that in trench warfare the first infantry attack takes the form of what our regulations call the final assault in a battle'.⁵⁸ In a widely-circulated memorandum from early April, Major-General Richard Butler, the Chief of Staff at First Army Headquarters drew on the lessons identified from the fighting at Neuve Chapelle. Butler noted that in future battles 'all ground gained must be secured' and highlighted the relevant section from the FSR – Part I, Section 105 (5) – which reinforced the lesson.⁵⁹ This section of the FSR had also been mentioned specifically by Haig in his diary entry of 28 March 1915.⁶⁰ The importance of FSR in the eyes of the war managers persisted through the campaign; at an army commander's conference in January 1916, Haig stressed 'the need for adhering to the principles of FSR' when planning and conducting operations.⁶¹ Haig viewed the FSR as providing regular army officers with 'a sound framework for decision-making' and while that may have been the case, he failed to recognise that the First Army in the 1915 campaign – and the entire BEF after his promotion to C-in-C in December 1915 – was not an exclusively professional force.⁶² Rather, the collection of regular, volunteer, Territorial Force and colonial soldiers described in chapter one required a more basic, prescriptive doctrine which was found lacking throughout the 1915 campaign.

⁵⁸ TNA, WO158/258, Neuve Chapelle Operations: Memoranda and Reports, Robertson to First Army Headquarters, n.d. but March 1915.

⁵⁹ NLS, Haig Papers, Acc.3155/172, 'Paper B - General Principles for the Attack', 13 April 1915. This paper was widely circulated throughout the First Army and copies exist in most unit war diaries down to brigade level.

⁶⁰ NLS, Haig Papers, Acc.3155/100, Haig's Typescript Diary, 28 March 1915.

⁶¹ NLS, Haig Papers, Acc.3155/104, Haig's Typescript Diary, 8 January 1916.

⁶² Sheffield, *The Chief*, 147-8. See also, Niall Barr, 'Mobile to Static Warfare', 15.

These four general organisational development inputs – knowledge from education and experience, institutional ethos, and operational doctrine – formed what Tim Travers described as the ‘mental horizons’ of British war managers.⁶³ This was the paradigm of war in which they took decisions, considered their experiences and identified lessons. However, the Organisational Development Model has one further, more specific, input which shaped the abilities of the war managers to conduct offensive operations. As mentioned in the previous chapter, the war managers of the First Army were affected by decision-making from outside their own structure, mainly through GHQ setting the date and place of offensive actions and through the provision of resources – particularly artillery weapons and ammunition – to assist in those attacks.

The expansion of British industry during the opening months of the war did not match the speed of the expansion of the British military. As a result, ammunition for the British artillery was at a premium. At Neuve Chapelle, the First Army used up a third of the BEF’s total ammunition stock in three days’ fighting, a state which led to the premature closure of that battle.⁶⁴ A shortage of shells had affected the capabilities of the BEF since the declaration of war: Sir John French noted that as early as September 1914, that ‘the maintenance of the supply of Artillery Ammunition was already causing the gravest anxiety, owing to the fact that receipts from home were greatly below the expenditure’.⁶⁵ The shells expended at Neuve Chapelle represented seventeen days’

⁶³ Travers, *Killing Ground*, xx, 37.

⁶⁴ Marble, *British Artillery*, 77.

⁶⁵ IWM, French Papers, JDPF 7/2 (2), Sir John French, ‘Memorandum on the Supply of Artillery Ammunition to the Army in the Field’, 10 June 1915.

worth of British ammunition production in March 1915.⁶⁶ The supply of ammunition to the First Army was further hampered by the need to support the Dardanelles expedition. As Haig noted on 16 March, '[t]his lack of ammunition seems serious. It effectively prevents us from profiting by our recent success and pressing the enemy before he can reorganise and strengthen his position'.⁶⁷ Haig was pressured by Robertson into being economical with the ammunition supplies, and in turn Robertson was pressed by Kitchener. 'It is not possible to judge over here how you expend this most valuable adjunct', Kitchener wrote to Robertson on 16 March, 'but we hope that everything possible is being done to economise the principal means at your disposal to enable you to attack the enemy or to advance with any success'.⁶⁸ This was something of a paradox. The Secretary of State for War told the Chief of the General Staff not to use too much ammunition to attack the German positions as it may be needed to attack the German positions.

The Battles of Aubers Ridge and Festubert in May further exposed the shortages in ammunition. While at Neuve Chapelle First Army was able to expend 1,546 tons of ammunition over six days, at Aubers Ridge the army attacked on a wider front and expended 1,800 tons of ammunition in twelve days.⁶⁹ The majority of that ammunition was used on 8 and 9 May in the preliminary bombardment of the Aubers Ridge. Immediately, GHQ became concerned with the amount of rounds being fired by First

⁶⁶ Marble, *British Artillery*, 77.

⁶⁷ NLS, Haig Papers, Acc.3155/100, Typescript Diary, 16 March 1915.

⁶⁸ IWM, French Papers, JDPF 7/2 (2), 'Kitchener to Robertson', 16 March 1915.

⁶⁹ Ian Malcolm Brown, *British Logistics*, 91.

Army's artillery. Sir William Robertson wrote to Haig on 10 May that 'if yesterday's expenditure is kept up we shall run out of ammunition on the lines of communication after 3 days'.⁷⁰ The ensuing 'shells scandal' marked a low point in the British war effort and exposed significant problems in Britain's war policy.⁷¹ However, as much as the shortage of shells and other war matériel did affect British military effectiveness in the 1915 campaign it must be noted that resources alone do not win wars; rather, those resources are manipulated by senior commanders to achieve specific operational and tactical goals.⁷² While the provision of resources affected the First Army's ability to take the offensive, it did not directly affect the learning process of the First Army as an institution. It is fair to suggest that the First Army war managers did not have the resources to fight the war they wished in the 1915 campaign, however they continually sought to fight battles in a manner which sat outside the parameters established by GHQ and the political war management hierarchy and which eclipsed their own capabilities.

These five inputs shaped how the First Army war managers thought about battle planning in the 1915 campaign. In terms of the organisational development of the First Army, these inputs represent the first level of the Organisational Development Model, as shown in Figure 2.1. The second level of the model can be described as the 'Planning

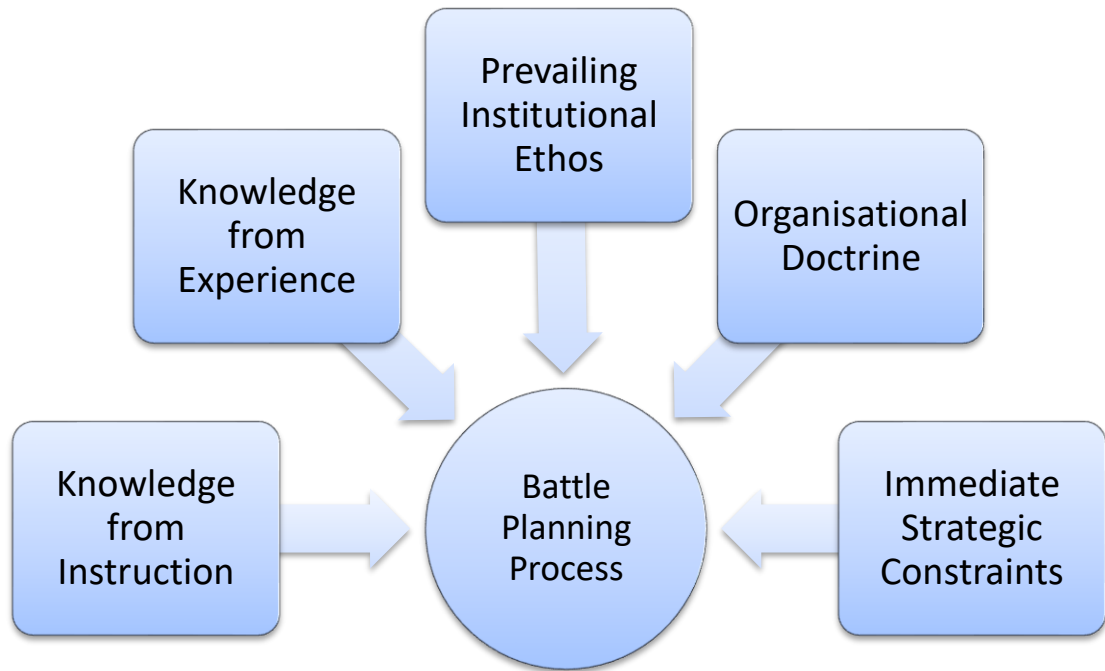
⁷⁰ NLS, Haig Papers, Acc.3155/101, Typescript Diary, 10 May 1915.

⁷¹ See Peter Fraser, 'The British "Shells Scandal" of 1915', *Canadian Journal of History* 18.1 (1983): 69-87; Peter Fraser, 'British War Policy and the Crisis of Liberalism, 1915', *Journal of Modern History* 54.1 (1982): 1-26; David French, 'The Meaning of Attrition, 1914-1916', *English Historical Review* 407 (1988): 385-405; and John Mason Sneddon, 'The Supply of Munitions to the Army, 1915' in Jones (ed.) *Courage without Glory*, 56-79.

⁷² Paul Kennedy, 'Britain in the First World War', in Allan Millett and Williamson Murray (eds), *Military Effectiveness. Volume 1: The First World War* (Cambridge, 2010), 34-5.

and Execution Level’ where the inputs came together and set the war managers’ parameters for battle planning.

Figure 2.1: Stages One and Two – Inputs to Learning



The remainder of this chapter examines how the war managers sought to make sense of their experiences over the course of planning and executing the five major offensive actions of the 1915 campaign and introduces the third level of the Organisational Development Model. This third level can be described as the ‘Data Creation and Collection Level’ where experiences are considered, new knowledge is created and collated, and lessons are identified. Analysis of official unit war diaries and supplementary papers and the letters and diaries of senior officers has revealed that there were three main ways in which the First Army war managers learned from their

experiences in the 1915 campaign. In the first place, war managers considered the immediate experience of battle and were proactive in identifying lessons themselves. The second means of data collection was identified by Catignani with respect to the British Army in Afghanistan and consists of the war managers' formal requests for after-action reviews and lessons learned reports from their subordinate formations.⁷³ This corresponds with Grissom's ideas of change in military institutions originating from the top-down.⁷⁴ The third means of data collection was through the receipt of lessons learned reports from members of the general staff who sat outwith the First Army's operational planning hierarchy. The following sections examine each of these means to assess their relative importance in the wider Organisational Development Model.

Self-Identification of Lessons

This section examines the extent to which war managers at First Army headquarters and those at the headquarters of the constituent corps attempted to draw lessons from their experience of battle. As the war managers were necessarily removed from the fighting 'on the ground', this section evaluates decisions made during the planning and review of offensive actions and the incorporation of self-identified lessons into future battle plans. This process hinged on the ability and willingness of war managers to analyse their experiences and create a body of what Foley described as new 'tacit knowledge' from which future policy can be developed.⁷⁵ This section necessarily examines learning from the perspective of a small group of individuals: one army staff and three corps

⁷³ Catignani, 'Coping with Knowledge', 36.

⁷⁴ Grissom, 'Future of Military Innovation Studies', 925.

⁷⁵ Foley, 'Dumb Donkeys', 281.

staffs across the campaign. While Haig's staff at First Army headquarters numbered some 33 members, only his chief of staff Brigadier-General Sir Richard Butler and his assistant Lieutenant-Colonel John Davidson, his head of intelligence Major John Charteris and his artillery advisor Major-General Mercer were actively involved in the planning process.⁷⁶ Over the course of the 1915 campaign data collection and creation was largely reliant on the identification of lessons by the war managers themselves and then their *ad hoc* incorporation into the wider battle planning process. This was driven primarily by war managers at First Army headquarters and the first part of this section analyses changes in operational methodology in attempting to overcome the deadlock of trench warfare. The second sub-section examines the application of firepower, specifically the lessons which could be drawn from preparatory artillery bombardments. The third sub-section examines the processes of data creation and collection at the level of corps commanders.

There is an historiographical disagreement over the extent to which the war managers sought to learn from their experiences. Paul Harris suggested that following the Battle of Neuve Chapelle in March 1915, the First Army war managers made little attempt to examine the reasons for the failure to break through the German lines.⁷⁷ This position has been countered by Gary Sheffield who asserted that Haig carefully incorporated the lessons of Neuve Chapelle into the planning of the next battle at Aubers Ridge.⁷⁸ Prior

⁷⁶ NLS, Haig Papers, Acc.3155/141/80, Haig to Lady Haig, 20 January 1915. Butler joined Haig's staff on 22 February 1915 as a replacement for Brigadier-General Sir John Gough.

⁷⁷ Harris, *Douglas Haig and the First World War*, 127.

⁷⁸ Sheffield, *The Chief*, 113.

and Wilson believed that Lieutenant-General Sir Henry Rawlinson, the commander of IV Corps, ‘strove to divine the lessons’ of the battle of Neuve Chapelle and tried ‘to derive from them a coherent theory for further trench-warfare battles’.⁷⁹ Finally, Nick Lloyd asserted that following the Battle of Loos in September 1915 at the operational level ‘a number of key lessons remained unlearnt by a number of senior British commanders’, which would later have disastrous implications for the planning of the Battle of the Somme in the 1916 campaign.⁸⁰ It is important to note here, however, that the identification of lessons by war managers did not equate to a critical examination of their own conduct and capabilities either in the planning phase nor in the actual execution of offensive actions, rather it was an attempt to view the experience of battle at the macro level and formulate subsequent battle plans based on their own observations. The Battle of Neuve Chapelle affords the first opportunity to examine the extent to which the war managers used their initiative to identify lessons from their experiences in the campaign. At this stage in the campaign the learning process involved the identification of things which succeeded and should be replicated and the identification of things which went badly and which should be improved. In this, the learning process of the war managers at the start of the 1915 campaign aligns itself with Catignani’s view of adaptation which sees formations correcting errors within the current system of institutional norms, and also the first of Farrell’s two key components

⁷⁹ Prior and Wilson, *Command on the Western Front*, 77

⁸⁰ Lloyd, *Loos: 1915*, 223.

of military adaptation, namely that units refine or modify their existing tactics, techniques and technologies as a campaign progresses.⁸¹

The Battle of Neuve Chapelle was the first large-scale planned British offensive of the Great War.⁸² As such, the experience was ‘in the nature of an experiment’ in how to confront the deadlock of trench warfare.⁸³ Drawing on the organisational development inputs of ethos and doctrine described in section one, Haig envisioned the Battle of Neuve Chapelle in the model of the decisive four-stage action as exemplified in the FSR. The intended operation was described by Haig as ‘a serious offensive movement with the object of breaking the German line, and consequently our advance is to be pushed vigorously’.⁸⁴ Haig further elaborated that, ‘the idea is not to capture a trench here or a trench there, but to carry the operation right through; in a sense surprise the Germans, carry them right off their legs...and exploit the success this gained by pushing forward mounted troops forthwith’.⁸⁵ This mode of thinking also aligned with Haig’s education at Camberley which promoted the power of the offensive and emphasised that war would end with a decisive victory. His general aim at Neuve Chapelle was to break through the German trench system, pour cavalry through the gap, restore mobility to the battlefield and end the war. To do so, Haig selected objectives for the attacking troops which were situated some 6,000 yards behind the German front line on the strategically

⁸¹ Catignani, ‘Coping with Knowledge’, 38; Farrell, ‘Improving in War’, 570.

⁸² For a more complete examination of the planning of the battle see Patrick Watt, ‘Sir Douglas Haig and the Planning of the Battle of Neuve Chapelle’, in Spencer Jones (ed.), *Courage without Glory: The British Army on the Western Front in 1915* (Solihull, 2015), 183-203.

⁸³ IWM, Keary Papers, Doc.2160, Henry Keary to Frank Keary, 23 April 1915.

⁸⁴ TNA, WO95/154, First Army General Staff War Diary, Haig to GHQ, 12 February 1915.

⁸⁵ NLS, Haig Papers, Acc.3155/171, ‘Notes at Conference on 5/3/1915’.

significant Aubers Ridge. The original battle plan saw the British operations as part of a wider Allied breakthrough attempt in which the British 8th Division of the IV Corps and the Meerut Division of the Indian Corps would attack alongside the French to the south. However, on 28 February, the French withdrew their support for the operation thus ensuring that the Battle of Neuve Chapelle would be undertaken solely as a British endeavour. This, coupled with limitations placed on artillery expenditure by GHQ on the same date, was a serious blow to Haig's hopes of achieving a decisive breakthrough, as 'even if [the First Army was] successful at first, a point will be reached in a very short time, i.e., in two or three days at most when we will have to re-establish our line'.⁸⁶ Haig, then, acknowledged that 'the scope of the operation was [now] limited' but chose to press on with planning a decisive breakthrough battle regardless.⁸⁷

In the event, the Battle of Neuve Chapelle laid the foundations for British offensive planning not only for the remainder of the 1915 campaign but also for the battles of 1916 and 1917. It was characterised by the use of new technologies and careful preparation, including the use of aerial photography to create detailed maps of the Germans positions, the withdrawal of attacking battalions for rest and training, the creation of forming-up trenches close behind the front line, and the use of artillery timetables to ensure maximum destruction of the German front line positions.⁸⁸ The initial attack, made by the IV and Indian Corps on 10 March, captured a front of 4,000

⁸⁶ TNA, WO158/181, First Army: Neuve Chapelle Operations File, 'Confidential Memorandum by GOC First Army', 28 February 1915.

⁸⁷ TNA, WO158/181, First Army: Neuve Chapelle Operations File, 'Confidential Memorandum by GOC First Army', 28 February 1915.

⁸⁸ TNA, WO158/182, First Army: Neuve Chapelle Report on Action, 'Memorandum on the Attack on Neuve Chapelle by First Army'.

yards to a depth of 1,200 yards but broke down once the initial German trench lines had been captured. One reason for this was the extent of the aerial photography; the trench systems were photographed only for a depth of 700–1,500 yards in front of the British lines and encompassed only the attacking battalions' primary objectives.⁸⁹ As Haig's breakthrough battle plan hinged on an advance of 6,000 yards to capture the ultimate objective of the Aubers Ridge, this methodology was fundamentally flawed. While Sheffield has suggested that a line of obstacles had been missed in the photographic reconnaissance, it is clear that the aerial photography had never been intended to map out the rear areas.⁹⁰ As a result the attacking battalions of the IV and Indian Corps were left blind once they had captured their first objectives and encountered a line of fortifications which had not been marked on their trench maps and which they had not been trained to attack. Despite repeated attempts until the end of 12 March, no further ground was gained. While Haig was undoubtedly open to the idea of incorporating new technologies as part of a general battle plan, it is also apparent that he was sometimes unclear about how to apply these new technologies to his operational idea of the four-stage breakthrough battle. Nevertheless, he realised their worth, and the use of air reconnaissance which originated at Neuve Chapelle was, by 1918, a staple of the British battle plan.

The main methodological lesson in battle planning which Haig identified from First Army's experience at Neuve Chapelle was that 'given sufficient ammunition and

⁸⁹ TNA, WO158/182, First Army: Neuve Chapelle Report on Action, 'Memorandum on the Attack on Neuve Chapelle by First Army'.

⁹⁰ Sheffield, *The Chief*, 107.

suitable guns we can break through the enemy's line whenever we like'.⁹¹ In Haig's opinion his breakthrough battle-plan was vindicated by the successes of the morning of 10 March. Haig believed that for several hours there existed an opportunity to pour troops through the gap made in the German trenches; this view was backed up by at least one battalion commander from the 8th Division, who had participated in the attack and had witnessed the opportunity himself.⁹² According to Haig, the First Army's failure to secure the objectives on the Aubers Ridge was not due to a faulty plan, but to poor execution by his subordinate commanders, Henry Rawlinson of the IV Corps and James Willcocks of the Indian Corps, who he deemed guilty of mishandling their reserves and halting their advance, thus allowing the Germans time to regroup and reinforce their lines.⁹³ Indeed, Haig later asserted that for five hours British troops were 'walking about in and beyond [the primary objectives] without being fired upon at all' but, because leadership from their corps commanders was missing and training in 'infiltration techniques' had not yet been adopted, no concerted advance was organised.⁹⁴

In terms of First Army Headquarters' reflection on the Battle of Neuve Chapelle, Butler drafted a briefing note entitled 'Memorandum on the Attack on Neuve Chapelle by First

⁹¹ NLS, Haig Papers, Acc.3155/214, Haig to Rothschild, 13 March 1915.

⁹² TNA, WO158/374/3, Neuve Chapelle: Report on Operations, Major-General Cecil Lothian Nicholson, 'Neuve Chapelle', 1 May 1920. During the Battle of Neuve Chapelle Nicholson was the lieutenant-colonel commanding the 2nd East Lancashire in the 8th Division. Nicholson believed the opportunity existed between 11.30am and 5pm on 10 March.

⁹³ NLS, Haig Papers, Acc.3155/100, Haig Typescript Diary, 13 March 1915.

⁹⁴ TNA, CAB44/19, Haig's Comments on Sir James Edmonds, *British Official History*, Volume III, Chapter IV: Battle of Neuve Chapelle, July 1925, 21. This was an erroneous assumption - Prior and Wilson demonstrated that a lack of artillery support and equipment meant that the infantry could not advance during this time. See, Prior and Wilson, *Command on the Western Front*, 44-67; Lloyd, 'With Faith and Without Fear', 1066.

Army' which was passed to GHQ on 22 March.⁹⁵ This document is far from being introspective and is primarily a narrative summary of operations with a heavy focus on the detailed planning undertaken by the Royal Engineers and Royal Artillery. One factor which inhibited the First Army's war managers from drawing the maximum potential lessons from Neuve Chapelle was Haig's desire to press on and conduct the campaign at a high tempo. As early as 12 March, the First Army began planning an attack to the north of Neuve Chapelle to be undertaken by the 7th Division of the IV Corps and by the newly arrived Canadian Corps and supported by the 2nd Cavalry Division.⁹⁶ This desire to immediately renew the offensive matched with Sir John French's own operational ideas in which the attack on Neuve Chapelle was the first step in a larger 'Battle of Lille' which, like Haig's own methodology, was to be fought as a decisive breakthrough battle.⁹⁷ In the event, GHQ was forced to call off First Army's attack due to the diversion of ammunition away from the western front, a decision which, wrote Haig, 'effectively prevents us from profiting by our recent success and pressing the enemy before he could strengthen his position'.⁹⁸ Following Neuve Chapelle, the general plans were in place, at least at the operational level, to fight a high-tempo style of war more akin to that of the Hundred Days campaign in 1918, however the lack of key resources meant that it remained unachievable.

⁹⁵ TNA, WO158/182, First Army: Neuve Chapelle Report on Action, 'Memorandum on the Attack on Neuve Chapelle by First Army'.

⁹⁶ CAC, Rawlinson Papers, RWLN 1/1, Diary, 14 March 1915.

⁹⁷ IWM, French Papers, JDPF 1, Diary of Sir John French, 10 March 1915.

⁹⁸ NLS, Haig Papers, Acc.3155/100, Typescript Diary, 16 March 1915.

Scrutiny of the First Army official war diary and Haig's personal diary affords an opportunity to examine the extent that the war managers at First Army headquarters altered their perception of battle based on their own assessments of Neuve Chapelle. The first evidence of Haig's thinking post-Neuve Chapelle appears in his comments on draft attack plans created in late March and early April by the staff of the 7th and Canadian Divisions and the Indian Corps and which would evolve into the plans for the Battle of Aubers Ridge. Haig's intention was that planning should 'be worked out by Corps and Divisions...on the same lines as those for the attack on Neuve Chapelle' although it was hoped that they would 'lead to more far reaching results' than the first battle of the campaign.⁹⁹ This reiterates Haig's belief that the plan for Neuve Chapelle – his plan – had not been responsible for the failure to break the German lines. The plan for the Battle of Aubers Ridge followed that of Neuve Chapelle in the originality of its design; a two-pronged attack some 6,000 yards apart was to converge on the Aubers Ridge, the same final objective as the battle two months previous. For Haig, in the early stages of planning, the objective of the attack was 'not a local success and the capture of a few trenches or even a portion of the hostile position on a more or less extended front, but is to employ the entire force at our disposal and fight a decisive battle' and cause a 'general retirement' of the enemy's line.¹⁰⁰ As in the planning stage at Neuve Chapelle, Haig identified that flaws existed in his plan and that the results might be limited. At a meeting with Sir John French, Haig informed him that in his opinion 'we had not

⁹⁹ TNA, WO95/155, First Army General Staff War Diary, Butler to Corps, Divisions and Brigades, 13 April 1915.

¹⁰⁰ TNA, WO95/155, First Army General Staff War Diary, Butler to Corps, Divisions and Brigades, 13 April 1915; TNA, WO95/155, First Army General Staff War Diary, Butler, 'Paper B: General Principles for the Attack', 13 April 1915.

enough troops and guns to sustain our forward movement, and reap decisive results...[Sir John French] wished me to attack and do the best I could with the troops available'.¹⁰¹ Again, as at Neuve Chapelle, Haig chose to continue with his plan even against his better judgement and, at a conference of senior war managers on 6 May, reiterated his orders that the corps were to break through the German lines.¹⁰²

The Battle of Aubers Ridge, undertaken on 9 May 1915, failed to replicate even the initial successes of Neuve Chapelle. Again, Haig strove to maintain a high tempo to operations, even in the face of an overwhelming defeat, and planned to concentrate his next attack back at Neuve Chapelle, from where the I and Indian Corps had attacked on 9 May.¹⁰³ By the following day, Haig was 'carefully investigating the causes of the failure', but was hampered by the slow flow of information from subordinate formations to First Army headquarters.¹⁰⁴ Reflecting on the experiences of Aubers Ridge, Haig deduced three main lessons, the first of which related to operational methodology and the others to specific artillery preparations. Haig asserted that the improved strength of the German positions meant that a long and methodical bombardment carried out by both field guns and howitzers would be required before the infantry attack began.¹⁰⁵ After consideration of his options, Haig decided that 'it is necessary to recourse [sic] to

¹⁰¹ NLS, Haig Papers, Acc.3155/101, Typescript Diary, 30 April 1915.

¹⁰² TNA, WO158/183, First Army Operations File, 'First Army Operation Order No.22', 6 May 1915.

¹⁰³ NLS, Haig Papers, Acc.3155/101, Typescript Diary, 10 May 1915.

¹⁰⁴ TNA, WO158/183, First Army Operations File, Haig to Robertson, 11 May 1915.

¹⁰⁵ NLS, Haig Papers, Acc.3155/101, Typescript Diary, 11 May 1915; TNA, WO95/155, First Army General Staff War Diary, 'Situation at Daylight', 10 May 1915.

more deliberate methods' of attack.¹⁰⁶ This marked the first occasion in the war that Haig considered an operational methodology other than the decisive breakthrough battle. While Haig had expressed doubts over his plans at both Neuve Chapelle and Aubers Ridge, these were quickly dismissed and replaced by a renewed confidence in the model of warfare which Haig had been conditioned, through education and experience, to believe offered the greatest chance of strategic success. That Haig swiftly changed focus following the defeat at Aubers Ridge demonstrates at least a willingness to assess his own experiences and alter his perceptions based on his observations.

Haig's assertion that a more deliberate methodical approach was necessary was agreed to by Sir John French, who believed that the results of the Battle of Aubers Ridge showed that the First Army should aim at a more limited objective than those which had characterised the earlier breakthrough attempts.¹⁰⁷ Rather than being a decisive attack, the next operation should be, according to GHQ, 'deliberate and persistent...the enemy should never be given complete rest either by day or night, but be gradually and relentlessly worn down by exhaustion and loss until his defence collapses'.¹⁰⁸ The First Army planned the next battle – the Battle of Festubert – with this in mind and selected a position only 1,000 yards away as the objective for the attacking troops.¹⁰⁹ The battle, launched on 15 May, succeeded on the front of the I Corps but the Indian Corps became bogged down amid stubborn German resistance. Applying a lesson learned from earlier

¹⁰⁶ TNA, WO95/155, First Army General Staff War Diary, Butler to Corps, 10 May 1915.

¹⁰⁷ TNA, WO95/155, First Army General Staff War Diary, Robertson to First Army, 11 May 1915.

¹⁰⁸ TNA, WO95/155, First Army General Staff War Diary, Robertson to First Army, 14 May 1915.

¹⁰⁹ For a recent analysis of the battle see, Robert Williams, 'The Battle of Festubert', in Spencer Jones (ed.), *Courage without Glory: The British Army on the Western Front in 1915* (Solihull, 2015), 258-81.

battles, Haig chose not to reinforce the failure of the Indian Corps' attack and concentrated on supporting the localised successes of the I Corps. Operations at Festubert continued until 25 May when low ammunition stocks and a reinforced German trench system forced the cessation of the battle. The net gain for this first limited attack was an advance of an average of 600 yards on a front of four miles. The limited success of the Battle of Festubert reveals a change in the nature of learning in the First Army. Between Neuve Chapelle and Aubers Ridge the operational plan remained largely the same save for the incorporation of certain tactical lessons. This mirrors Farrell's first example of adaptation in which tactics were refined given the same strategic situation. Between Aubers Ridge and Festubert the change in methodology from a decisive breakthrough to an attritional wearing down battle represents the second of Farrell's means of adaptation, in which a new means of conducting operations was conceived.¹¹⁰

At the conclusion of the fighting at Festubert, the First Army was told by GHQ to limit itself to small aggressive threats that would not require much ammunition or many troops.¹¹¹ Accordingly, Haig ordered the IV Corps to attack the German positions on the Rue d'Ouvert near Givenchy with the 7th, 51st and Canadian Divisions. While Haig approved of a deliberate artillery bombardment of the type employed at Festubert, the timing of the attack was subject to coordination with the French, who had proposed to attack near Arras. After several postponements, the attack commenced at 6pm on 15 June. At its conclusion the following day no ground had been gained and the IV Corps

¹¹⁰ Farrell, 'Improving in War', 570.

¹¹¹ NLS, Haig Papers, Acc.3155/101, Typescript Diary, 25 May 1915.

had sustained over 3,500 casualties. The battle was the smallest of the five undertaken by the First Army in 1915 but its repercussions were large and long-lasting. The failure of an attack by a single corps to break through the enemy trenches was seen by Haig as an indication that more was required. Success would come with more guns, more ammunition and more men. Indeed, with the dispatch of the first of the new armies to France and the establishment of the Ministry of Munitions in the summer of 1915, this looked more likely. In a letter to Clive Wigram, the King's private secretary, Haig opined that 'In order to be successful in breaking the lines in our front, it is necessary to attack on a much wider front than has hitherto been possible'.¹¹² This opinion was laid out in a general staff memo from early July which advocated an artillery bombardment of several days across the whole front followed by an advance on a wide front, estimated to be some twenty-five miles.¹¹³ The plans showcased therein showed a return to the planning of the decisive battle laid out in the FSR. The main lesson that Haig identified from the first four battles of the 1915 campaign reinforced his conclusions from the 1914 campaign – that the old principles of war still applied and only the scale of the operations needed to change.¹¹⁴ This was the germ of the idea which formulated into the operational plans for the Battle of Loos in September.

The prospect of launching an offensive in coordination with a proposed French attack on the Vimy Ridge to occur in the summer was first mooted to Haig in late May. Until

¹¹² NLS, Haig Papers, Acc.3155/101, Typescript Diary insert, Haig to Wigram, 27 June 1915.

¹¹³ TNA, WO158/184, First Army Operations File, Sir Richard Butler, 'Memorandum on the Strength of Force Required for an Attack on a Front of 25 Miles', July 1915.

¹¹⁴ Haig to Asquith, 25 June 1915, quoted in Sheffield, *The Chief*, 121.

early August, Haig's and GHQ's preference was for a renewed attack to capture the Aubers Ridge however, on 7 August GHQ informed First Army that the area of the attack would be decided by the French.¹¹⁵ It was decided that the attack would take place on 25 September and that the British I and IV Corps would attack towards the strategically important Hohenzollern Redoubt and Hill 70, respectively.¹¹⁶ The 8th Division of III Corps and the Indian Corps were ordered to mount diversionary attacks at Bois Grenier and Mauquissart, to the north of the main attack.¹¹⁷ The plan included the use of poisonous gas which would be released from the British trenches prior to the infantry attack. The scale of the battle of Loos was in line with the change in Haig's operational methodology and was larger than anything the First Army had attempted before; at Loos the front to be attacked was 11,200 yards, compared to 1450 at Neuve Chapelle, six months earlier.¹¹⁸ Despite the limited success of the more cautious approach taken at Festubert, Haig again reverted back to attempting a decisive battle. At a conference of war managers on 6 September, Haig outlined that 'It is not enough to gain a tactical success...the question is how to turn our tactical success into a strategical [sic] victory'.¹¹⁹ His conclusions were that decisive results would be obtained through a rapid advance pressed home 'with the necessary vigour and strength' using 'initiative amongst all ranks' and would culminate in a 'vigorous pursuit' using

¹¹⁵ NLS, Haig Papers, Acc.3155/102, Typescript Diary, 7 August 1915.

¹¹⁶ For an excellent academic treatment of the battle see Lloyd, *Loos: 1915*.

¹¹⁷ For details of these diversionary actions see Alun Thomas, '8th Division and the Action at Bois Grenier, 25th September 1915', in Spencer Jones (ed.), *Courage Without Glory; The British Army on the Western Front, 1915* (Solihull, 2015), 390-407; Corrigan, *Sepoys in the Trenches*, 222-43.

¹¹⁸ Harris, *Douglas Haig and the First World War*, 158; Lloyd, *Loos: 1915*, 100.

¹¹⁹ TNA, WO158/184, First Army Operations File, 'Precis of Conference; First Army Conference on Monday, 6th September'.

cavalry.¹²⁰ In preparation for this breakthrough, four aeroplanes from Royal Flying Corps (RFC) attached to First Army were designated for aerial reconnaissance in cooperation with the Cavalry Corps. The RFC were ordered that this duty was to take precedence over all other work assigned to them.¹²¹ The Battle of Loos began on 25 September and lasted until 13 October. In some places, notably on the front of the 15th (Scottish) Division in the IV Corps sector, the troops nearly succeeded in breaking through the German lines. However, once surprise was lost the Germans were able to reinforce their positions and the advance ground to a halt. Despite repeated attempts over the next two weeks, territorial gains were few and far between.

The Battle of Loos, much like Neuve Chapelle, reinforced Haig's belief that his operational methodology was sound. A memorandum of November 1915 drafted by Richard Butler, Haig's chief of staff, further demonstrated First Army headquarters' willingness to consider their experiences and develop policy accordingly. Butler's work drew certain conclusions from 'a study of all the various attacks carried out by the First Army since Neuve Chapelle'.¹²² Experience during the 1915 campaign had shown that attacks had to be made with a minimum of five waves of attacking troops to have best chance of success. In order to maximise the power of the attack, it should be delivered on a front of eleven miles using at least twenty-two infantry divisions. Above all, 'the

¹²⁰ TNA, WO158/184, First Army Operations File, 'Precis of Conference; First Army Conference on Monday, 6th September'.

¹²¹ TNA, WO158/184, First Army Operations File, GHQ to First Army, 17 September 1915.

¹²² IWM, Private Papers of Lieutenant-General Sir Richard Butler [afterwards IWM, Butler Papers], Doc.14150 I/1, Butler, 'Memorandum', November 1915.

most important point is to break the line'.¹²³ Following his rise to command the BEF in December, Haig set out to develop his operational methodology for the 1916 campaign. He recognised that operations 'intended merely to cause loss to the enemy, at a less cost than ourselves' should not be pushed beyond the limits of artillery support. While operations which were 'designed to wear down the enemy' appeared a prudent course of action, Haig thought of them as a way to 'prepare the way for a decisive offensive effort later on' rather than a strategy in themselves.¹²⁴ In this, Haig dismissed a more limited attritional methodology and persisted with his favoured principle of fighting the decisive breakthrough battle.

The decision to continually revert to the breakthrough battle, although on a far larger scale than before, is evidence of Haig's failure to adapt his critical thinking to the strategic conditions of trench warfare. Catignani's study of organisational learning in the British army in Afghanistan demonstrated that until there were significant changes in institutional data creation and collection processes, the identification of lessons learned, and training and education provision, commanders were bound to revert to what they had been trained to do.¹²⁵ The same process is evident in the First Army in 1915. The absence of a formal system for data capture and collation gave increased importance to the learning process of the senior war manager, in this case, General Haig. The operational methodology of the First Army was dictated by what Haig thought best and

¹²³ IWM, Butler Papers, Doc.14150 I/1, Butler, 'Memorandum', November 1915.

¹²⁴ TNA, WO158/19, General Staff Notes on Operations, Douglas Haig, 'General factors to be weighed in considering the allied plan of campaign during the next few months', 16 January 1916.

¹²⁵ Catignani, 'Coping with Knowledge', 39.

Haig heavily leaned on his own formative experiences when devising operational procedure. While he demonstrated a willingness to consider his experiences and identify lessons, this reversion to a breakthrough battle at Loos shows that a willingness to think does not necessarily mean that the correct lessons are identified or applied. It follows, then, that at the 'Data Collation and Collection Level', the Organisational Development Model must make no judgement on the correctness or success of a specific lesson which has been identified by war managers. Indeed, generating ideas only makes learning a possibility, and it is the continual process of identifying, evaluating, selecting and implementing these ideas which defines the process of organisational development.¹²⁶ It also follows that some lessons may remain unidentified by the war managers.

When examining organisational development at the operational level it would be incorrect to focus solely on Haig, although he did have the greatest influence on First Army's battle planning process. In total, seven corps commanders – Monro and Gough at I Corps, Pulteney at III Corps, Rawlinson at IV Corps, Willcocks and Anderson at the Indian Corps, and Haking at XI Corps – all contributed to the wider learning process. Following the Battle of Neuve Chapelle, Sir James Willcocks, GOC of the Indian Corps, was content to produce only a loose narrative of operations which drew more attention to units he felt worthy of praise rather than a consideration of his experiences and recommendations for future best practice. After the Battles of Aubers Ridge and Festubert, Willcocks did not think it necessary to submit a corps report detailing the action of the Indian Corps in those battles. Rather, he was content to forward the report

¹²⁶ John Denton, *Organisational Learning and Effectiveness* (London, 1998), 16.

of the GOC Meerut Division which was ‘very full and contains every possible information’.¹²⁷ It is clear that Willcocks did not view his role as a corps commander as having any involvement in considering his experiences nor trying to discern lessons from the work of others. Instead, he saw himself as the guide of the Indian Corps, protecting their interests and largely leaving the planning of offensive actions to his chief of staff, Brigadier-General Hudson.¹²⁸ Lieutenant-General Charles Monro, GOC of I Corps, was also content to submit a report created by a subordinate to First Army headquarters, however that report was different in content to the narrative account of the Meerut Division. Created by Major-General Sir Richard Haking of the 1st Division, and ‘based on notes taken down by [him] as each event occurred during the course of the battle’ the report was a blend of narrative and lessons Haking had identified based on things he had witnessed.¹²⁹ It was a detailed account including recommendations on the future selection of the ground to be attacked, the effect of shell-fire on enemy trenches, and the necessity of neutralising machine gun position, among others. There is no question that this document was created by Haking based on his own consideration of the battle rather than those of his subordinates as the 1st Division headquarters only received reports from their brigadiers on 17 May, the day after the report was written by Haking and passed to I Corps. The speed of passing the report, from the 1st Division through I Corps to the First Army in one day meant that the contents had the potential to influence operations undertaken by First Army during the Battle of Festubert.

¹²⁷ TNA, WO95/155, First Army General Staff War Diary, Willcocks to First Army, 14 June 1915.

¹²⁸ Regarding Willcocks’ protection of the Indian Corps see his first letter to Haig of 14 June 1915 in TNA, War Office, WO95/155, and on his experiences in France in general see Sir James Willcocks, *With the Indians in France* (London, 1920).

¹²⁹ TNA, WO95/155, First Army General Staff War Diary, Sir Richard Haking, ‘Report on the Attack of the 1st Division from the Rue du Bois on 9th May 1915’, 16 May 1915.

The overriding opinion following the opening phase at the Battle of Loos was that a breakthrough had almost been achieved. For Rawlinson, the battle reinforced his opinions from Neuve Chapelle, that ‘experience teaches us that in these attacks one does not make much progress after the first day’.¹³⁰ The learning process was dominated by attempts to discover why an attack by the reserve XI Corps was delayed and made no impact on the battle.¹³¹ The forensic examination that followed had important implications for the handling of reserve forces in battle but, in the short term, had more of an impact on the war management hierarchy of the BEF. Following a protracted disagreement which drew in individuals from across the political and military spectrum, Sir John French was relieved of his duties and replaced as commander-in-chief by Sir Douglas Haig. In terms of the corps commanders involved in the opening phase of the battle, Rawlinson again reverted to forwarding a narrative report of operations to First Army for their information.¹³² The wider IV Corps war management team did, however, attempt to evaluate their experiences, although what they then did with the information is uncertain. Rawlinson drafted an unofficial paper that identified the specific artillery lessons which could be drawn from the preparatory bombardment while his CRA, Brigadier-General Budworth, examined the role of corps artillery staff in the planning

¹³⁰ CAC, Rawlinson Papers, RVLN 1/3, Diary, 28 September 1915.

¹³¹ See, for example, TNA, WO158/261, Battle of Loos; 24th Division Report; WO158/262, Battle of Loos; 21st Division Report; WO158/263, Report on Action of 21st and 24th Divisions; WO158/264, Correspondence on the 21st and 24th Divisional Reports; WO158/265, Allotment of Reserves for Operations: Extracts from Memoranda, among others

¹³² TNA, WO95/711, IV Corps General Staff War Diary, ‘IV Corps Narrative of Operations, 21st September–7th October 1915’.

process, infantry-artillery cooperation, and the role of howitzers in the bombardment.¹³³ First Army headquarters were also keen to focus on the artillery lessons and produced a separate report in November detailing their findings.¹³⁴ Rawlinson's chief of staff, Brigadier-General Sir Archibald Montgomery, was more proactive, creating a lecture from his observations which he then presented to the Second and Third Armies, the GHQ Intelligence Course at Bethune, and at a variety of army training schools, in the period between the close of the Battle of Loos and the opening of the Somme offensive in July 1916.¹³⁵ Following the final operations at Loos in October, Haig asked Haking 'to let him know as soon as possible' what lessons could be learned from XI Corps' attack on 13 October.¹³⁶ Haking responded the following day, even though 'the full details...are not yet available'. While some of Haking's judgements in battle planning in 1915 have been criticised, his ability to identify lessons himself and quickly transmit them up the chain of command is evidence of his willingness to consider his experiences.¹³⁷

The identification of lessons by war managers themselves represented the most influential means of data creation and collection used in the First Army in the 1915 campaign. On a formal level, this took the form of narrative accounts and occasional lessons learned reports although this varied substantially between the individual

¹³³ LCHMA, Montgomery-Massingbird Papers, 6/4, Sir Henry Rawlinson, 'Artillery Lessons' and Brigadier-General Budworth, 'Artillery Lessons'.

¹³⁴ TNA, WO95/160, First Army General Staff War Diary, 'Some Artillery Lessons to be Learnt from the Recent Operations in September–October 1915', November 1915.

¹³⁵ LCHMA, Montgomery-Massingbird Papers, 7/1, Sir Archibald Montgomery, 'Lecture given on action of IV Corps at Loos, 25th September 1915'.

¹³⁶ TNA, WO95/159, First Army General Staff War Diary, Haking to First Army, 14 October 1915.

¹³⁷ For criticism see Senior, *Haking: A Dutiful Soldier*, 42-73.

commanders involved. As has been shown, of the corps commanders, Haking was quick to consider and transfer lessons he had identified himself while Willcocks gave little credence to identifying lessons, preferring to pass the reports of his subordinate officers up the chain of command with little or no comment and after a substantial delay. Rawlinson, the most operationally active of the corps commanders in the campaign, demonstrated a willingness to consider the bigger picture and suggest changes to operational methodology. The lack of a formal system of data capture and collation meant that there was no standard method of sharing information or deducing what information should be shared. This inadvertently gave Haig as the GOC an increased importance in the organisational development of the First Army. As a result, the organisational development of the First Army as an institution was inextricably linked with the learning process of its most senior war manager. While Haig was willing and able to identify lessons himself over the course of the campaign, little changed in his mindset to alter his preferred operational methodology.

Top-Down Requests for Lessons

While the identification of lessons based on their own experiences represented by far the greatest means of data creation used by the First Army war managers, other methods of data capture were employed. John Denton asserted that in large institutions, 'organisational learning is invariably introduced in a top-down senior-management-led manner'.¹³⁸ Foley's studies in understanding how learning occurred in the German Army of the Great War demonstrated the importance of lessons-learned reports to

¹³⁸ Denton, *Organisational Learning and Effectiveness*, 204.

organizational learning.¹³⁹ The German system for data capture directed that on leaving the front lines, each corps or division was required to complete a report which contained practical lessons based on their experiences in the previous period of combat.¹⁴⁰ While there was no standard formula for creating a lessons-learned report, each was an analytical document rather than the narrative reports which characterised the British approach to recording the experiences of battle. This process can best be described in terms of ‘feedback loops’ in which information was systematically relayed to commanders to keep them apprised of operational performance.¹⁴¹ Because the British Army of 1915 did not have a formal system of data capture, ‘feedback loops’ were employed on an *ad hoc* basis at the discretion of senior war managers. As the previous section has shown, some higher commanders were adept at analysing experiences and transmitting this information up the chain of command, while others were less effective. This section examines the extent to which the war managers sought out new information from subordinate units in order to achieve greater operational effectiveness. This took two main forms: in the first place, war managers could formally request lessons-learned reports to augment their own observations; and second, they could seek out new information through informal means to assist with the specifics of battle planning.

Formal requests for information from below, beyond the production of the expected narrative report of operations which followed the close of hostilities, were uncommon in

¹³⁹ Foley, ‘Dumb Donkeys’, 287; Foley, ‘Horizontal Innovation’, 214-16.

¹⁴⁰ Foley, ‘Dumb Donkeys’, 287; Foley, ‘Horizontal Innovation’, 214-16.

¹⁴¹ Kristen A. Harkness and Michael Hunzeker, ‘Military Maladaptation: Counterinsurgency and the Politics of Failure’, *Journal of Strategic Studies* 38.6 (2015), 784.

the First Army in the 1915 campaign. At the highest level, Haig rarely formally sought out lessons identified by subordinate officers, although by the end of the campaign he appears to have become more open to the idea as his urgent letter to Haking seeking for a lessons-learned report ‘as soon as possible’ after the action of 13 October demonstrates.¹⁴² Other members of the First Army war management group were more flexible; Major-General Rice, the CRE at First Army headquarters wrote to the CREs of the IV and Indian Corps, requesting their observations on the engineering difficulties identified at the Battle of Neuve Chapelle. When he had collated them and considered the content, he added his own observations and passed them for circulation to the rest of the First Army headquarters general staff officers.¹⁴³ Following the use of poison gas as an offensive weapon at the Battle of Loos, requests were made to infantry divisions for ‘brief reports on the effect of our gas on the enemy’, as ‘information is required on which to base suggestions likely to make a gas attack more effective in future’.¹⁴⁴ These requests were, however, informal in nature and were initiated by the ‘gas advisor’ at GHQ rather than from First Army headquarters. That it was the engineers and technological specialists who were more proactive in identifying lessons from below is in-keeping with the pre-war attitude that the technical branches of the army were more open to considering their experiences.

¹⁴² TNA, WO95/159, First Army General Staff War Diary, Haking to First Army, 14 October 1915.

¹⁴³ TNA, WO158/258, Neuve Chapelle Operations: Memoranda and Reports, Rice to First Army, 17 March 1915.

¹⁴⁴ TNA, WO95/2699, Forty-Seventh Division General Staff War Diary, Divisional Headquarters to 140 and 141 Brigades, 21 October 1915.

For the most part, the responsibility of formal data collection from subordinate units resided with officers of the general staff posted to individual infantry divisions. Thus, following the Battle of Neuve Chapelle, Lieutenant Colonel Hoskins, chief of staff of the 7th Division, sent a request to the three infantry brigade commanders, plus the CRE and CRA, asking for their recommendations on how to 'improve our training and arrangements for battle, what modifications in our formations for attack should be adopted, and generally what lessons we can we deduce from our experiences'.¹⁴⁵ Hoskins' replacement as chief of staff, Lieutenant-Colonel Francis Gathorne-Hardy, was also proactive in requesting information from subordinate formations. In writing to the infantry, artillery, signals and engineer commanders after the Battle of Loos, Gathorne-Hardy noted that 'it is important that the causes which led to failure as well as those which led to success should be carefully analysed, so that one may be avoid one in the future, and exploit the other'.¹⁴⁶ While written reports were more common, Major-General Hubert Gough, also of the 7th Division, interviewed commanders involved in the Battle of Givenchy to ascertain the reasons for the failure of the attack prior to receiving their formal reports.¹⁴⁷ The 7th Division is something of an anomaly in terms of its ability or desire to seek out analysis from its constituent parts. Examination of the war diaries and supplementary papers from the other ten divisions which planned and conducted offensive operations with the First Army reveals that there was no general practice of collection of analytical data from subordinate formations in the 1915

¹⁴⁵ TNA, WO95/1628, Seventh Division General Staff War Diary, Hoskins to 7th Division Infantry, Artillery and Engineer Commanders, 21 March 1915.

¹⁴⁶ TNA, WO95/1629, Seventh Division General Staff War Diary, Gathorne-Hardy to Infantry, Artillery, Engineer and Signals Commanders, 9 October 1915.

¹⁴⁷ TNA, WO95/1629, Seventh Division General Staff War Diary, Gough to IV Corps, 19 June 1915.

campaign. Indeed, only two examples deviate from the production of a standard narrative account of battle. After the Battle of Loos, Major-General Arthur Holland circulated his own findings into why the 1st Division failed to capture Hulluch to his brigadiers; and in the 9th Division, Lieutenant-Colonel S E Hollond, prepared a lecture based on the reports he had collated from his formation's brigades, batteries and battalions.¹⁴⁸ In the absence of any evidence of the desire of divisional war management teams to request analytical reports from their subordinate formations, it may be suggested that there existed an informal culture at 7th Division headquarters that encouraged its war managers to actively seek out new information from below. The examples highlighted in this section took place across the campaign, were initiated by different senior staff officers, and occurred under the supervision of different divisional commanders.

The second means by which war managers requested information from subordinates occurred on a more informal level. In developing the artillery plan at Neuve Chapelle, Haig consulted with the First Army CRA, Major-General Freddy Mercer, and Brigadier-General Arthur Holland, the then CRA of the 8th Division. The main problem he identified in the planning stage was that 'none of the artillery commanders seem to be able to agree as to the amount of ammunition or time required to destroy a given length

¹⁴⁸ TNA, WO95/1229, First Division General Staff War Diary, Hollond to GOCs Infantry Brigades, 9 October 1915; TNA, WO95/1733, Ninth Division General Staff War Diary, Lieutenant-Colonel S. E. Hollond, 'Lecture on the Part Played by the 9th Division in the Battle of Loos', October 1915.

of hostile position'.¹⁴⁹ To counter this Haig sought the counsel of artillery specialists who were not involved in the official planning for the battle. Among these were Major-General the Lord Horne, the commander of the 2nd Division who had served as the CRA of I Corps in 1914 when Haig was the commanding officer. Horne was consulted because he had drawn up the scheme for the capture of a German position at Cuinchy on 6 February which 'was a very well arranged and well carried out attack' in which 'the guns...did extremely well'.¹⁵⁰ As a result of the success of the 'Affair at Cuinchy' as the action became known, Haig instructed Mercer, to visit the 2nd Division to consult with the commanders of the six-inch howitzers who had 'the latest and most practical experiences of any' in the First Army.¹⁵¹ This suggests that as early as the start of the 1915 campaign Haig was prepared to engage with the thinking of his subordinate officers if they had practical technical experience of which he knew little.

Haig's willingness to consult with 'subject experts' from outside the armed forces led to significant reform of the British systems of logistics and the development of new technology.¹⁵² In the 1915 campaign, Haig was equally willing to consult with technological experts who were beneath him in the army structure in order to incorporate their expertise into battle plans. Of particular importance was the input of specialists in air power and chemical warfare. During the planning of the Battle of Neuve Chapelle,

¹⁴⁹ NLS, Haig Papers, Acc.3155/100, Typescript Diary, 28 February 1915.

¹⁵⁰ IWM, Horne Papers, Doc.12468, Horne to Lady Horne, 6 February 1915.

¹⁵¹ NLS, Haig Papers, Acc.3155/100, Typescript Diary, 1 March 1915.

¹⁵² See, for example, Rosen, *Winning the Next War*, 109-29; Foley, 'Dumb Donkeys'; Christopher Phillips, 'Logistics and the BEF: The Development of Waterborne Transport on the Western Front, 1914-1916', *British Journal of Military History* 2.2 (2015): 42-58; and Christopher Phillips, 'Not your Typical Soldier, not your Typical Service: Sir Francis Dent and the First World War', *The Historian* 122 (Summer 2014): 28-31.

Lieutenant-Colonel Hugh Trenchard, the commander of the First Wing of the Royal Flying Corps (RFC), was one of the first people to be taken into Haig's confidence regarding the battle plans, and he lobbied for the RFC to undertake a prominent role in the coming offensive.¹⁵³ The RFC's use of photography in the creation of the trench maps on which the offensive was planned, received significant criticism from some artillery officers. Haig informed these officers that 'he was going to use the air in this war, and they had to use it' too, adding that he would not tolerate any 'early Victorian methods'.¹⁵⁴ The relationship between the two men grew as the campaign progressed as Trenchard found Haig willing to take expert advice on aviation matters.¹⁵⁵ This progressed to the stage that Haig adopted Trenchard's suggestions that the RFC could be used to bomb strategic targets in the German rear positions and then incorporated them into the battle plan for Aubers Ridge.¹⁵⁶ Haig was similarly open to consulting with specialists over the use of poisonous gas prior to the Loos offensive. By the start of the battle Haig was of the opinion that by using gas 'decisive results were to be expected'.¹⁵⁷ While Haig's relationship with Lieutenant-Colonel Foulkes, the commander of the Royal Engineers' 'Special Brigade' – the unit responsible for preparing the chemical attack at Loos – was rather strained in the run-up to the battle over the delivery of enough gas cylinders for his proposed offensive, this did not stop him from consulting

¹⁵³ Trenchard, quoted in Peter Hart, 'The BEF takes off: The Royal Flying Corps in 1915', in Spencer Jones (ed.), *Courage without Glory: The British Army on the Western Front, 1915* (Solihull, 2015), 131.

¹⁵⁴ Haig quoted in David Jordan, 'The Battle for the Skies; Sir Hugh Trenchard as Commander of the Royal Flying Corps', in Matthew Hughes and Matthew Seligmann (eds), *Leadership in Conflict, 1914–1918* (Barnsley: 1990), 72.

¹⁵⁵ Jordan, 'Battle for the Skies', 73.

¹⁵⁶ NLS, Haig Papers, Acc.3155/101, Typescript Diary, 6 May 1915.

¹⁵⁷ NLS, Haig Papers, Acc.3155/102, Typescript Diary, 16 September 1915.

Foulkes on matters regarding gas as an offensive weapon. While the use of gas at Loos was not the success Haig envisioned, it did not hinder the BEF's development of a chemical warfare strategy. Indeed, Foulkes was given considerable leeway to experiment in new methods of delivery and production, the lessons of which Haig used in battle planning later in the war, albeit on a smaller scale than at Loos.¹⁵⁸

Transfer of Lessons from GHQ

While on operational matters GHQ was largely content to allow General Haig a free hand in planning offensive actions, they did attempt to consider the experiences of the First Army independently. As such, the lessons identified by war managers at GHQ also represent a method of data creation and collection in the third level of the Organisational Development Model. In terms of operational methodology, officers at GHQ also attempted to think in terms other than Haig's breakthrough battle concept. In early January 1915, Lord Kitchener advanced the view that 'the German lines in France may be looked upon as a fortress which cannot be carried by assault and also cannot be completely invested'.¹⁵⁹ Sir William Robertson was of a similar opinion. On 8 February 1915, Robertson authored a memorandum in which he described that the fighting on the western front had now reached a point where 'the principles of fortress warfare rather than those of field warfare apply'.¹⁶⁰ With that being the case, the Germans could only be beaten 'by a process of slow attrition, by a slow and gradual

¹⁵⁸ Lloyd, *Loos: 1915*, 222-3.

¹⁵⁹ IWM, French Papers, JDPF 7/2 (2), Kitchener to French, 2 January 1915.

¹⁶⁰ TNA, WO158/17, General Staff: Notes on Operations, Sir William Robertson, 'Memorandum on the Possibility of Undertaking Offensive Operations', 8 February 1915.

advance on our part, each step being prepared by predominant artillery fire and a great expenditure of ammunition'.¹⁶¹ This echoed the approach suggested by Capper in February, and Rawlinson in March, and indicates that the prevalence of alternative methodologies extended further than divisional and corps commanders within the First Army.

As chief of the general staff at GHQ, Robertson was quick to examine the First Army's experiences at Neuve Chapelle. Robertson's first paper on the subject was passed to Sir John French on 14 March, two days after the close of the battle. He asserted that the fighting at Neuve Chapelle had not changed the strategic situation but, by attacking, the BEF 'gained certain definite tactical and moral advantages' over the Germans and 'the next step is to consider how these advantages can be turned to account'.¹⁶² His thinking on the latter is demonstrated in his comments on Haig's draft proposals for the rapid follow-up action to Neuve Chapelle. In asserting that 'the whole question is one of the best way of using the available ammunition', Robertson hit upon the key to operational methodology in the 1915 campaign.¹⁶³ Both Haig's wide-fronted breakthrough battle plans and Rawlinson's idea of 'bite and hold' demanded the use of artillery ammunition that was not available to the BEF in 1915. Robertson's suggestion involved taking the ammunition supply as the base and then building an offensive plan on top of it, rather than the First Army method of devising a plan and then attempting to procure the

¹⁶¹ TNA, WO158/17, General Staff: Notes on Operations, Robertson, 'Memorandum on the Possibility of Undertaking Offensive Operations', 8 February 1915.

¹⁶² TNA, WO158/17, General Staff: Notes on Operations, Sir William Robertson, 'General Staff Note on the Situation', 14 March 1915.

¹⁶³ IWM, French Papers, JDPF 7/2 (2), Sir William Robertson, 'Notes on 1st Army Proposals', 18 March 1915.

ammunition. Interestingly, Robertson's comments also include a deleted passage in which he noted that 'the question arises...whether the Aubers-Bois du Biez line could not be reached by a succession of comparatively small attacks supported by a limited number of guns'.¹⁶⁴ His reasons for deleting the passage are unclear, however it does suggest that the experience of the Battle of Neuve Chapelle did little to alter Robertson's operational outlook.

A later, more considered, memorandum identified a number of lessons which stood out from the recent fighting. Robertson drew many of the same conclusions as war managers within the First Army structure. His report, prepared for Sir John French, highlighted the careful preparation of the artillery attack, the use of what he termed a 'tir de barrage' to stop German reinforcements reaching the battle zone, and the commonly identified theme that further attacks on fortified positions would not succeed without a preparatory bombardment.¹⁶⁵ Although staff officers at GHQ considered the lessons from the First Army's experience at Neuve Chapelle, the extent to which this information was transmitted to the First Army war managers is unclear. While Robertson and Haig corresponded both formally and informally, copies of Robertson's reports on the Battle of Neuve Chapelle are only found now in the GHQ General Staff file and not in the First Army war diary or the official First Army file on Neuve

¹⁶⁴ IWM, French Papers, JDPF 7/2 (2), Robertson, 'Notes on 1st Army Proposals', 18 March 1915.

¹⁶⁵ TNA, WO158/17, General Staff: Notes on Operations, Sir William Robertson, 'General Staff Notes on the Offensive', March 1915.

Chapelle.¹⁶⁶ The reports were passed to Sir John French and it is conceivable that they were never forwarded to the First Army headquarters for analysis.

Brigadier-General John DuCane, the artillery advisor at GHQ, was ordered by Robertson to write a further memorandum on the battle of Neuve Chapelle, which was also presented to Sir John French. However, the presence of that paper in the IV Corps reports on the battle suggest that the lessons identified therein may have been formally disseminated down the army hierarchy.¹⁶⁷ Alternatively, their presence in the IV Corps file might mean that they were shared informally between DuCane and his friend Sir Henry Rawlinson, the commander of IV Corps. The version of the report in the IV Corps file is dated 31 March and Rawlinson certainly received DuCane at IV Corps headquarters on 4 April to discuss the artillery situation for the upcoming Aubers Ridge attack.¹⁶⁸ DuCane asserted that 'it is desirable to examine as closely as circumstances permit the tactical lessons of the battle of Neuve Chapelle, and to consider their bearing on the strategical problem that confronts us.'¹⁶⁹ The main lesson identified by DuCane was that once the first assault had been delivered on the German trenches, the attacking troops 'got beyond the scope of [the] system of communications', meaning that the

¹⁶⁶ TNA, WO158/17, General Staff: Notes on Operations, William Robertson, 'Report on Battle of Neuve Chapelle'.

¹⁶⁷ TNA, WO158/17, General Staff: Notes on Operations, John DuCane, 'Tactical Lessons of the Battle of Neuve Chapelle and Their Bearing on the Strategic Problem that Confronts Us', 15 March 1915. A further copy of this document is found in the papers of Sir John French: IWM, French Papers, JDPF 7/2 (1), John DuCane to Robertson, 15 March 1915. This latter document is particularly valuable as it has been annotated by Robertson. It is the version used in this thesis.

¹⁶⁸ TNA, WO158/374, Neuve Chapelle: Report on Operations, John DuCane, 'Tactical Notes on Neuve Chapelle', 31 March 1915; CAC, Rawlinson Papers, RWLN 1/1, Diary, 4 April 1915.

¹⁶⁹ IWM, French Papers, JDPF 7/2 (1), DuCane to Robertson, 15 March 1915.

impetus of the attack rested on the initiative of junior commanders who, once the system of artillery observation broke down, were held up by fortified locations which had not been bombarded. DuCane advocated that by the concentration of superior resources in men, guns and ammunition an attack would proceed in stages 'each step in advance being consolidated before the next step is taken'. This 'more methodic mode of progression' he contended, fit better into the tactical conditions of the war 'than the more violent method of attack as illustrated by Neuve Chapelle'.¹⁷⁰ It is clear, then, that some officers at GHQ demonstrated a willingness to adapt their outlook and seek alternate solutions to the operational problems of trench warfare.

DuCane's memorandum of 15 March has been the subject of some recent historiographical confusion. It was first mentioned by Prior and Wilson as evidence that Henry Rawlinson was not the only officer who considered that limited 'bite and hold' attacks would be the most successful operational methodology for future offensive actions, however the memorandum itself was not analysed by the authors.¹⁷¹ The memorandum was also mentioned by Niall Barr, although he appears to have failed to recognise that DuCane was its author, attributing it to 'one far-sighted staff officer'.¹⁷² Prior and Wilson and Barr used two different versions of the same report; the first being the version contained in the GHQ General Staff file and the second being the version in Sir John French's personal papers which has been annotated by Sir William Robertson. The version of the memorandum from the GHQ General Staff file was also used by Paul

¹⁷⁰ IWM, French Papers, JDPF 7/2 (1), DuCane to Robertson, 15 March 1915.

¹⁷¹ Prior and Wilson, *Command on the Western Front*, 80, footnote 11.

¹⁷² Barr, 'Command in the Transition from Mobile to Static Warfare', 35, and footnote 62.

Harris and Sanders Marble, who described its contents as ‘a sensible solution to the problem of attacking on the western front’.¹⁷³ Harris and Marble used DuCane’s memorandum to suggest that there existed a school of thought at GHQ – including Robertson, DuCane and Frederick Maurice, Robertson’s deputy – which had developed a competing theory to Rawlinson’s ‘bite and hold’ method. Gary Sheffield also picked up on DuCane’s memorandum but rather than using it as a rebuttal of Haig’s breakthrough plans, Sheffield emphasised DuCane’s quotes that the breakthrough was ‘a good plan that failed’ because of the failures of subordinate commanders to push on rapidly after the initial successes on the morning of 10 March.¹⁷⁴ This marks a significant departure from earlier interpretations of DuCane’s memorandum. The reason for this is that Sheffield used the version of the report which is located in the IV Corps reports on the Battle of Neuve Chapelle and dated 31 March, rather than the one held in the GHQ General Staff file or in Sir John French’s papers which dates from 15 March. These are two fundamentally different papers.

The memorandum used by Prior and Wilson, and Harris and Marble, constitutes the first draft of DuCane’s personal investigation into the lessons of the Battle of Neuve Chapelle. The copy he passed to the CGS, Sir William Robertson, on 15 March is the paper contained in the GHQ General Staff file. Robertson’s comments on that draft, including a rejection of DuCane’s claim that ‘we failed to penetrate the enemy’s front’ is

¹⁷³ Paul Harris and Sanders Marble, ‘The “Step-by-Step” Approach; British Military Thought and Operational Method on the Western Front, 1915–1917’, *War in History* 15.1 (2008), 17-42; Harris, *Douglas Haig and the First World War*, 129-31; Marble, *British Artillery*, 77-9.

¹⁷⁴ Sheffield, *The Chief*, 110.

the copy of the document found in Sir John French's personal papers. Presumably once Robertson commented on the memorandum it was returned to DuCane for further consideration and redrafting and was re-submitted to Robertson in late-March. In the intervening period, Sir Henry Rawlinson's reputation had diminished in the eyes of Sir John French. This occurred because Rawlinson placed the blame for the failure to break through the German lines at Neuve Chapelle on Major-General Francis Davies, the GOC 8th Division, rather than admit to his own failures of command. This, coupled with Haig informing French of his belief that the plan would have succeeded without Rawlinson and Willcocks delaying operations after the initial break-in, meant that an unofficial narrative had been created in which the breakthrough methodology was completely vindicated. It appears there was little room or appetite for alternative solutions. Robertson passed DuCane's second report to French on 31 March. Sir John French's comments on the revised papers reveal much about his critical thinking at the time. While DuCane asserted that cavalry was of limited use in the conditions of the western front, Sir John French erased that paragraph from the report commenting that while he agreed, the role of cavalry 'is so far open to argument that I should prefer to mind these remarks'.¹⁷⁵ In addition, DuCane advocated that all ranks should press on and advance irrespective of others around them and all ranks should hold to the principle that 'ground gained should never be abandoned except under compulsion, as it may prove to be of much greater importance than is apparent at the time'. According to French, this

¹⁷⁵ TNA, WO158/374, Neuve Chapelle: Report on Operations, Sir John French, comments on John DuCane, 'Tactical Notes on Neuve Chapelle', 3 April 1915.

recommendation would ‘inculcate a somewhat dangerous doctrine’ into the British operational methodology.¹⁷⁶

Far from viewing DuCane’s findings as backing up his own methodology articulated on 8 February, Robertson chose to amend the paper prior to sending it to Sir John French. While the reasons for this are unclear, a comment made by Robertson on DuCane’s memorandum of 15 March may shed some light. In referring to DuCane’s methodical mode of advance, Robertson commented that ‘this is the French method; I prefer ours’.¹⁷⁷ The French Army began the First Battle of Champagne in February 1915 and experience from this action had shown that small-scale limited attacks had failed and suffered terribly from German enfilade fire.¹⁷⁸ It seems that Robertson had paid attention to the experiences of the French Army and consideration of those experiences led him to reject the wisdom of his own, and subsequently DuCane’s, operational methodology. In place, he chose to present to Sir John French a paper which focused on the tactical lessons from Neuve Chapelle and erased all operational lessons. The result was that DuCane’s conclusions were never presented to an audience wider than a few members of the General Staff at GHQ.

For the most part, Sir John French and GHQ did not actively attempt to share lessons they identified from First Army’s offensive actions with the army’s war managers. The

¹⁷⁶ TNA, WO158/374, Neuve Chapelle: Report on Operations, Sir John French, comments on John DuCane, ‘Tactical Notes on Neuve Chapelle’, 3 April 1915.

¹⁷⁷ IWM, French Papers, JDPF 7/2 (1), Sir William Robertson, comments on John DuCane, ‘Memorandum’, 15 March 1915.

¹⁷⁸ Krause, *Early Trench Tactics*, 25.

exception was following the opening phases of the Battle of Loos. On 6 October 1915, GHQ staff passed a memorandum written by Sir John French to the commanders of the First and Second Armies. From there, the memorandum was cascaded down through corps headquarters to the headquarters of individual divisions.¹⁷⁹ Based on the experience of the 1915 campaign, Sir John French asserted that the main lesson he deduced was that the extra power that modern weaponry had conferred on to the side who sat on the defensive meant that limits were placed on the power and endurance of each offensive movement. French also noted that isolated attempts to retake lost positions by ‘energetic divisional and brigade commanders’ should be discouraged unless there was a supporting artillery bombardment. He also mentioned that that he had frequently pointed out the futility of local counterattacks delivered hours after the Germans had captured a position but, in an indication that few listened to his comments, he asserted that those exact tactics had been recently carried out by the 28th Division at Loos.¹⁸⁰ At the close of the campaign, GHQ issued a general staff note which set out their plans for the 1916 campaign. In it, the general staff announced that the lessons identified from the Battle of Loos conformed to that of all other offensives the First Army had undertaken in the 1915 campaign: ‘that given adequate artillery preparation, or some form of surprise such as a gas attack, there is no insuperable difficulty in

¹⁷⁹ TNA, WO95/711, IV Corps General Staff War Diary, Sir John French, ‘Memorandum on the lessons to be drawn from the recent offensive operations’, 5 October 1915. Copies can also be found in the general staff war diaries of the 15th Division as WO95/1911/1 and the 47th Division as WO95/2699.

¹⁸⁰ TNA, WO95/711, IV Corps General Staff War Diary, ‘Memorandum on the lessons to be drawn from the recent offensive operations’, 5 October 1915.

overwhelming the enemy's troops in the front line and in support'.¹⁸¹ The operation which the general staff proposed for the coming campaign was something of a hybrid attack. It began with an operation with limited objectives intended to exhaust the enemy's reserves paving the way for a decisive attack once those reserves had been committed. On one hand, this type of attack could be seen as adapting to the strategic conditions and applying lessons identified by analysis of the First Army's five offensive operations in which the decisive breakthrough battle failed to achieve its objectives. However, it could also be seen as being an application of the principles of the preparatory and decisive attacks as described in the FSR. Indeed, as the staff note offered, 'it cannot yet be admitted that [the conditions of trench warfare] have materially altered the basic principles upon which battles have been fought in the past. What we need to do is to apply these principles correctly, rather than think of casting them aside'.¹⁸²

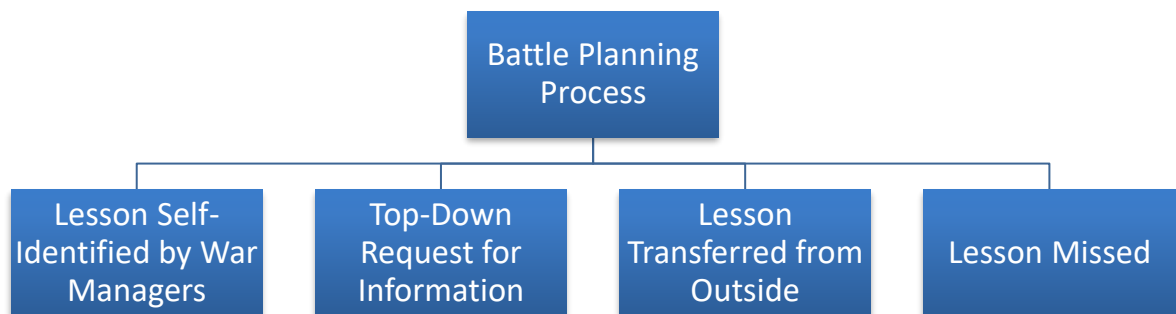
Analysis of the First Army war managers' operational methodology and decision-making over the course of the 1915 campaign allows for the addition of another layer to the Organisational Development Model. While the first stage of the model represented the five inputs which created the paradigm of war in which the war managers operated, the second layer represented the process of planning and conducting offensive actions, the third layer demonstrates how the war managers sought to make sense of their

¹⁸¹ TNA, WO158/17, General Staff: Notes on Operations, 'General Staff Note on the Next Offensive', 14 December 1915.

¹⁸² TNA, WO158/17, General Staff: Notes on Operations, 'General Staff Note on the Next Offensive', 14 December 1915.

experiences and shows how they could identify create and collate new knowledge in the post-battle period. The result of this layer was a body of new knowledge based on the collective experiences of the surviving participants of that battle. Figure 2.2, below, illustrates this layer of the Organisational Development Model.

Figure 2.2: Stage Three – Methods of Identifying Lessons



Conclusion

This chapter set out to answer three main questions: what factors shaped the decision making processes of First Army’s war managers; what methods did they use for data creation and collection; and what factors were responsible for inhibiting or aiding the learning process. In the first place, this chapter demonstrated that there were five organisational learning inputs which created the framework in which the war managers considered their experiences and made decisions. The war managers, especially Haig, were heavily influenced by their pre-war military education and their previous experiences of warfare both prior to the Great War and during the 1914 campaign. The formal education and informal knowledge gained through experience combined with the

prevailing institutional ethos and current doctrine to create the mental parameters in which the war managers considered the nature of the war. By dictating the amount of firepower and manpower the First Army could use in undertaking offensive operations, the general staff at GHQ added physical operational parameters to the mental dimension detailed above. These five inputs represent the first phase of the Organisational Development Model.

The second question addressed in this chapter examined the methods First Army's war managers used to create and collect new information. It demonstrated that there were three such methods: lessons could be identified by war managers themselves; war managers could request information from subordinate formations; and lessons could be passed to the First Army from outside its structure. The first method represented by far the most common practice, although there was no standardisation of operational procedure. Catignani's examination of the British Army in Afghanistan in the twenty-first century found that without a formal system for knowledge capture and evaluation commanders reverted to what they were conditioned to do. This chapter demonstrated that the same was true for the war managers of the First Army in the 1915 campaign. Faced with a style of warfare with which none were familiar, and with no system in place for understanding it, the war managers tended to revert to viewing the operational problems of the western front in terms of the existing Field Service Regulations. The reversion to the 'old principles of war' meant that Rosen's idea of a 'new theory of

victory' was absent at the operational level of war in the 1915 campaign.¹⁸³ While some war managers were willing and able to seek out information from below, this was not standard practice, and occurred as often on an informal basis as it did formally through the army hierarchy. The majority of war managers demonstrated a general willingness to consider their own experiences and to attempt to draw lessons from them. However, this willingness to learn did not necessarily mean that they identified the correct lessons from their experiences. As a result, the Organisational Development Model makes no judgement on the success or impact of the identified lesson. Overall, the experience of the First Army's war managers in the 1915 campaign showed that while the identification of lessons can be a straightforward process, learning is altogether more complicated.

¹⁸³ Rosen, *Winning the Next War*, 20.

Chapter Three

Organisational Development at the Tactical Level

A true understanding of the evolution of the British Army's operational method during the Great War must be sought not only below the level of high command but also below that of army and corps, principally at the level of the division.¹

John Bourne

Chapter two asserted that military activity takes place at a number of different but overlapping levels. This chapter builds on the study of learning at the operational level of war by examining organisational development at the tactical level. A modern interpretation defines this as 'the level of war at which battles and engagements are planned and executed to achieve military objectives assigned to tactical units'.² As chapter two suggested, there is a great degree of crossover between the operational and tactical levels of war. For the purpose of this thesis, the tactical level will be taken as being concerned with the actions of units no larger than an infantry division which Haig himself described as 'our real battle unit'.³ This agrees with Millett, Murray and Watman's definition which describes the tactical level in terms of the techniques used by combat units to fight localised engagements rather than the fighting of a specific campaign which characterises the operational level.⁴ By this definition, tactical superiority on its own cannot overcome poor planning and performance at the operational level, and a tactical concept will not lead to victory if it is not part of a wider

¹ John Bourne, 'British Divisional Commanders during the Great War: First Thoughts', *Gunfire: A Journal of First World War History* 29, nd, 22.

² United States Department of Defense, *Dictionary of Military Terms* (New York, 2009), 538.

³ NLS, Haig Papers, Acc.3155/103, Typescript Diary, 7 November 1915.

⁴ Millett, Murray and Watman, 'The Effectiveness of Military Organisations', 19.

operational concept.⁵ The study of the tactical level gives insight into a different kind of institutional change than that discussed in chapter two.

Studies of British operational performance have tended to focus on the infantry division as the main battle unit.⁶ Stuart Mitchell, in his examination of the performance of the 32nd Division, found that, by 1918, the divisional war managers had implemented a more sophisticated system of information feedback which consisted of interviews and formal after-action reports including evidence-based evaluations of how German soldiers in the divisional zone were killed.⁷ Mitchell found that institutional change in the 32nd Division was driven by an increase in battle wisdom, decentralisation of decision-making, effective structure and efficient leadership.⁸ Alun Thomas' study of the 8th Division also highlighted that 'cultural factors' such as morale, leadership and esprit de corps increased the effectiveness of the formation, which, by the Hundred Days campaign, was able to adopt a sophisticated approach to battle planning based on the specific tactical situation with which it was confronted.⁹ Furthermore, Thomas demonstrated that while many of the basic tactical ideas remained pertinent throughout the war, the main advances occurred in the specific techniques used and the firepower available to support infantry formations.¹⁰ Craig French's evaluation of the development of the 51st Division demonstrated that changes in the divisional structure

⁵ Milan Vego, *Joint Operational Warfare: Theory and Practice* (Washington, 2009), I-10.

⁶ The exception being Boff, *Winning and Losing on the Western Front*.

⁷ Mitchell, 'Learning in the 32nd Division', 117-20.

⁸ Mitchell, 'Learning in the 32nd Division', 272-6.

⁹ Thomas, 'British 8th Infantry Division', abstract, np.

¹⁰ Thomas, 'British 8th Infantry Division', 252

and firepower capabilities were key to its increasingly successful operational methodology.¹¹ While divisional studies are useful in presenting a snapshot of change over time in a particular formation, two problems can be identified through analysis of existing works. First, studies rarely evaluate how change occurred in the subject division, preferring to describe what the changes were and relating them to the wider debate on learning in the British Army. Second, the focus of many of these divisional studies have been on the second half of the war, leaving the 1915 campaign relatively neglected in comparison.¹² Despite this, in 1915 the BEF did begin to make tactical adaptations, so much so that by the first day of the Battle of the Somme the formations of the British Army had, as suggested by Griffith, ‘discovered most of the key points of modern warfare’.¹³

This chapter examines how institutional change affected tactical formations in the 1915 campaign. It is split into three sections each of which focuses on a significant area of institutional change and learning which was manifested at the tactical level of war. The first section concerns what can be termed tactical data creation and knowledge-transfer. It examines how the process of organisational development differed at the tactical level when compared to the operational level with respect to the creation, collation and

¹¹ Craig French, ‘The 51st (Highland) Division During the Great War’, unpublished PhD thesis, University of Glasgow (2006),

¹² The exceptions to this are French’s thesis on the Highland Division which includes a brief case study of the Battle of Givenchy and Thomas’ work on the 8th Division which examines that formation’s performance at both Neuve Chapelle and Bois Grenier. Oddly, Kathryn Snowden in her study of the 21st Division – which played such an important part in the Battle of Loos – chose to ignore that battle in her analysis, arguing that to include it ‘might not have led to the most authentic conclusion’ given the ‘obvious misdeployment of the reserves’.

¹³ Griffith, *Battle Tactics of the Western Front*, 53, 62.

transfer of new knowledge. The second section examines technological adaptation and demonstrates how the war managers sought to incorporate new inventions into their battle plans. The third section examines how the divisions and battalions of the First Army adapted their structure in response to the lessons they learned from their experiences in the 1915 campaign. It focuses on the structural changes that increased the firepower of the First Army's tactical units and formations. The conclusion evaluates the importance of these changes and demonstrates how they alter the overall Organisational Development Model.

Tactical Data Creation and Knowledge-Transfer

In terms of organisational development, there was no fundamental difference in the learning processes of divisions, brigades and battalions when compared to those of higher-level formations. War managers at these lower levels were subject to the same five inputs as those war managers who commanded corps and the First Army itself; namely, knowledge from education and experience, prevailing institutional doctrine and ethos, and the immediate strategic parameters as defined by GHQ. Similarly, the war managers at the tactical level used the same three main methods of data creation and collection as their counterparts at the operational level; they identified lessons themselves, they requested lessons from subordinate formations, and lessons were transferred to them from outside their immediate structure. There is, however, one key difference in data collection at this stage of the Organisational Development Model. Practitioners at the tactical level, from platoon commanders and specialist officers through to divisional commanders and their staffs, were sometimes proactive in

identifying lessons and transmitting them informally up the chain of command without waiting for official orders from above. The learning process being driven from below has been described as bottom-up adaptation, to distinguish from the more traditional top-down approach normally associated with institutions with rigid hierarchical structures.¹⁴ Adaptation from the bottom-up is viewed as representing small-scale institutional change in which errors in current practice are identified and corrected and new tactics, techniques and technologies are created, tested and implemented in and by combat units. Despite its small scope, adaptation at the tactical level represents an important facet of organisational development in the British Army during the Great War.

Analysis of the war diaries and supplementary files of the units and formations which made up the First Army reveal instances where junior officers took the initiative in passing reports up the chain of command without waiting for orders from above. Among the first of these reports was one authored by Lieutenant Francis Nosworthy of No.6 Company, 1st King George's Own Sappers and Miners, then attached to the Indian Corps. During the portion of the 1914 campaign commonly known as the 'race to the sea', elements of the BEF attacked the village of Neuve Chapelle. Lieutenant Nosworthy's report on that action – written on 30 October 1914 – was a particularly valuable document for a number of reasons. In the first place, Nosworthy was the only British officer who had knowledge of the specific positions in Neuve Chapelle, having

¹⁴ See, for example, Grissom, 'The Future of Military Innovation Studies', 920-4; Farrell, 'Improving in War', 567-73; Murray, *Military Adaptation in War*, Catignani, 'Coping with Knowledge', 31; Foley, 'Dumb Donkeys', 279-82.

spent several hours examining strongpoints, trenches and the enemy's dispositions.¹⁵ Second, Nosworthy included a number of recommendations for the future 'if an attack on the village becomes necessary'.¹⁶ These included the best preparation point for an assault, the need to effectively shell the strong German trenches he encountered in the village, and the necessity of withholding the attack until specific machine-gun positions had been destroyed. Finally, Nosworthy produced a detailed sketch map on which he marked a number of positions in the village of Neuve Chapelle including the position of trenches, fortified houses, snipers and machine gun emplacements. The exact paper trail of Nosworthy's report is unclear, however, as he specifically described that he 'ventured to send this' up the chain of command it can be demonstrated that the transfer of knowledge happened on his initiative.¹⁷ This is a clear example of data being created at the bottom of the command hierarchy and being passed up the chain of command without requests from above. While the degree to which war managers consulted Nosworthy's report in the planning phase of the Battle of Neuve Chapelle in February-March 1915 is unclear, its presence in the First Army operations file shows that it was transferred to the very top of the army structure.

¹⁵ TNA, WO158/258, Neuve Chapelle Operations: Memoranda and Reports, 'Copy of a Report dated 30-10-14 by Lieutenant F. P. Nosworthy, R.E., on the Attack on Neuve Chapelle on the 28th October 1914', 30 October 1914.

¹⁶ TNA, WO158/258, Neuve Chapelle Operations: Memoranda and Reports, 'Copy of a Report dated 30-10-14 by Lieutenant F. P. Nosworthy, R.E., on the Attack on Neuve Chapelle on the 28th October 1914', 30 October 1914.

¹⁷ TNA, WO158/258, Neuve Chapelle Operations: Memoranda and Reports, 'Copy of a Report dated 30-10-14 by Lieutenant F. P. Nosworthy, R.E., on the Attack on Neuve Chapelle on the 28th October 1914', 30 October 1914.

Following the Battle of Neuve Chapelle, some reports which were created by junior officers were transferred upwards to the top of the institutional hierarchy. On 4 April, Lieutenant-General Sir James Willcocks, GOC Indian Corps, forwarded a diary kept during the Neuve Chapelle operations by an engineer officer of the Indian Corps. The original handwritten copy was typed up at Indian Corps headquarters as 'it contain[ed] some interesting notes' on the battle that Willcocks 'was sure' Haig would like to see.¹⁸ The author of the diary was Captain Basil Condon Battye of No.21 Company, 3rd Sappers and Miners. During the Indian Corps' attack on the Bois du Biez on 10 March, Battye and his company were posted in an abandoned brewery, which afforded an excellent view of the battlefield, and from where Battye was able to send progress reports back to the headquarters of the Jullunder and Sirhind Brigades.¹⁹ Battye laid out a series of observations from the battle, including specific thoughts on engineering methods and on more general principles regarding the infantry and artillery components of the attack. He noted that while the first objective was taken on the morning of 10 March it was done so with heavy casualties from German machine-guns; if the infantry advance had taken place during the bombardment, then the same position would have been taken with no casualties, as British officers had walked freely around no-mans-land while the artillery bombardment was taking place. Battye also advocated a reappraisal of artillery objectives; in his opinion the failure to neutralise or destroy enemy positions on the flanks of the attack enabled the Germans to enfilade the British advance. In terms

¹⁸ TNA, WO95/708, IV Corps General Staff War Diary, Sir James Willcocks to General Sir Douglas Haig, 4 April 1915.

¹⁹ TNA, WO95/708, IV Corps General Staff War Diary, Diary of Neuve Chapelle by Capt. Battye', nd.

of engineering, he advocated a shift in policy away from building and concealing strongpoints known as ‘keeps’ in the British defensive lines to working out how to locate and destroy them in the German trenches. A theme evident in Battye’s thoughts is the necessity of incorporating other firepower weapons and techniques into the infantry and heavy artillery attack plan; he suggested that the Battle of Neuve Chapelle emphasised ‘the great importance of developing the high angle short range mortar and the machine gun in the assault’.²⁰ Battye’s diary, like Nosworthy’s report, was transmitted from the bottom of the army hierarchy to the top. Here, however, the knowledge-transfer pathway is more clear; the covering letter demonstrates that it was sent to Haig because Willcocks thought it would interest him. The presence of the document in the IV Corps war diary shows that for Haig, or his staff, the report was important enough to retain and to transmit to other corps of the First Army. This demonstrates not only that Willcocks was proactive in sending on reports written by subordinate officers, it shows that Haig was happy to receive them and to forward them to other parties.

While Nosworthy’s report presented ideas which could be used in future attacks and Battye’s diary presented lessons based on his eyewitness account, another type of report also originated at the tactical level. In the two days following the failure of the Battle of Aubers Ridge, a staff officer, Major Grant, took it upon himself to consult with ‘various

²⁰ TNA, WO95/708, IV Corps General Staff War Diary, Diary of Neuve Chapelle by Capt. Battye’, nd. The emphasis is original.

officers in the 1st Corps' to collect their thoughts on the recent operations.²¹ Once completed, Grant forwarded the report to the chief staff officers at I Corps headquarters. Grant noted that at Neuve Chapelle the German parapet had been completely destroyed whereas at Aubers Ridge gaps had only been made in the front line defences, indicating that they had been strengthened to protect dugouts or machine-gun emplacements. Furthermore, the guns situated in those emplacements were so placed to enfilade any British assault on the German positions. Reporting on the artillery bombardment, Grant noted that it was a failure and found that the Germans were able to open a heavy rifle and machine-gun fire on the British trenches during the preliminary bombardment. To counter this, Grant recommended that in future assaults the bombardment should be directed onto a smaller front and continued until the parapets were completely destroyed rather than firing until a pre-determined time. In agreement with Battye's observations from Neuve Chapelle, Grant noted that during the assault an intense shrapnel barrage should take place on the flanks of the attack to suppress enfilading machine-gun fire.²² In drawing together his conclusions, Grant found that while the 'leaders and staff...had foreseen everything that could have been thought of beforehand' the Germans 'had been able to profit by their experiences at Neuve Chapelle' and had significantly strengthened their defensive lines.²³ This is something of a paradox; it could be reasonably expected that the German Army would seek to adapt based on their experiences in the same way as the British sought to learn from theirs. Nevertheless, Grant's final recommendation

²¹ TNA, WO158/17/20, General Headquarters: Notes on Operations, 'Notes taken by Major Grant after I Corps operations', 12 May 1915.

²² TNA, WO158/17/20, General Headquarters: Notes on Operations, 'Notes taken by Major Grant after I Corps operations', 12 May 1915.

²³ TNA, WO158/17/20, General Headquarters: Notes on Operations, 'Notes taken by Major Grant after I Corps operations', 12 May 1915.

validated the British approach and agreed with many of the contemporary findings at the operational level. ‘With more explosives’, wrote Grant, ‘and with a larger number of heavy guns, there seems little doubt that we should have been successful’.²⁴

The reports created by Grant, Nosworthy and Battye were unusual in that they were transmitted from the very bottom of the army command structure to First Army headquarters at the top. Many other reports which considered the tactical experiences of war on the western front were passed no higher than the headquarters of the division or corps in which the author served. Following the Battle of Aubers Ridge, Brigadier-General Arthur Holland, CRA of the 8th Division, forwarded to the CRA of IV Corps a report on the effectiveness of artillery fire written by a junior officer.²⁵ The officer, Captain the Hon. B. J. Russell of the 104th Battery, Royal Field Artillery, reported his observations on the effect of high explosive shells on the German parapet based on his experiences on 9 May. This transfer of information highlights the difficulties of effective command in 1915. Russell sent his report to the chief artillery officer in the 8th Division who then sent it to the chief artillery officer in IV Corps; at no point can it be shown that the report was forwarded to any member of the general staff outside the artillery hierarchy. While this does not suggest that reports were deliberately hidden, it does demonstrate the difficulties in making effective command decisions at divisional

²⁴ TNA, WO158/17/20, General Headquarters: Notes on Operations, ‘Notes taken by Major Grant after I Corps operations’, 12 May 1915.

²⁵ TNA, WO95/1285, Second Division General Staff War Diary, Holland to IV Corps, 14 May 1915.

headquarters when the GOC was not always presented with the most up to date information.

The presence of Russell's report in the war diary of the 2nd Division CRA suggests that it was also transmitted horizontally to other artillery formations within the First Army. If this was indeed the case, it would not be the only time information was informally transferred from one group to another at the tactical level. Following the Battle of Loos the 46th Division was transferred to the First Army. Its first task was to capture the Hohenzollern Redoubt, a fortified position in the north of the battlefield which had been attacked by the 9th Division on 25 September. As the 46th Division was unfamiliar with the ground, two officers – Lieutenant Colonel S. E. Hollond, GSO1 of the 9th Division and Captain J. S. Drew, the adjutant of the 5th Cameron Highlanders – visited the headquarters of the 46th Division to pass on their experiences of the attack the previous week. While the advice was passed on verbally, the staff of the 46th Division did draw up a typed version of the conversation. Hollond and Drew illustrated twenty-two points which would be useful for the war managers of the 46th Division in drawing up their operational plans.²⁶ Their report covered where to site machine-guns for the attack, possible locations of German battlefield headquarters, what stores to take forward, particular points in the German line which caused trouble to the 9th Division, and the order in which to attack those points. As the 46th Division had no experience of trench-holding in the Loos sector, the topographical descriptions of the defences which were

²⁶ TNA, WO95/2662, Forty-Sixth Division General Staff War Diary, 'Notes made at a visit by Lt Col Hollond, GSO1 9th Division, and Captain Drew, Cameron Highlanders to Divisional headquarters, 6 October 1915'.

presented to the new division were especially welcome. The day after Hollond and Drew's visit, Lieutenant-Colonel Gathorne-Hardy, the GSO1 of the 7th Division, also attended the headquarters of the 46th Division and added his thoughts on the position to be attacked.²⁷ The two visits certainly affected how Major-General Stuart-Wortley, the GOC 46th Division, approached the planning of his attack on the Hohenzollern Redoubt; he noted he created his draft attack plan after consultation with 'staff and other officers who took part in the late attacks'.²⁸ That plan saw Stuart-Wortley champion a limited objective, citing that the majority of casualties in that sector on 25 September came when the 9th Division tried to fight their way to their second objective through a series of miners' cottages. By removing that position from the attack the 46th Division would suffer fewer casualties, and would provide the division 'with all we want' in terms of battlefield success.²⁹ This example highlights that, for the troops on the ground, information which stemmed from the experiences of other similar formations often had the greatest impact when transferred horizontally rather than vertically up the formal army structure. In this, it agrees with Farrell's study of the British Army in Afghanistan in the period 2006–2009, in which infantry brigades transferred new knowledge to their successors who could then transform that knowledge into structural and technological changes.³⁰

²⁷ TNA, WO95/2662, Forty-Sixth Division General Staff War Diary, 'Notes made at a visit by Lt Col Gathorne-Hardy to Divisional Headquarters, 7 October 1915'.

²⁸ TNA, WO95/2662, Forty-Sixth Division General Staff War Diary, Major-General Stuart-Wortley to XI Corps, 7 October 1915.

²⁹ TNA, WO95/2662, Forty-Sixth Division General Staff War Diary, Major-General Stuart-Wortley to XI Corps, 7 October 1915.

³⁰ Farrell, 'Improving in War', 588-92.

Technological Adaptation

When the BEF arrived in France in August 1914 it possessed little of the equipment necessary for fighting trench warfare. As a prolonged period of stalemate had not been foreseen by British operational planners, there existed no formal military or civilian infrastructure for the creation, development and manufacture of new types of weaponry.³¹ Despite this, the Great War - and the 1915 campaign in particular – provided a fertile ground for technological adaptation. In many cases, this adaptation was driven from the bottom-up as junior officers and specialists drew on their individual experiences, and used their initiative, to try and create new technology which could overcome the deadlock in their particular sector. This section examines how technological adaptation occurred in the First Army over the course of the 1915 campaign and demonstrates that – with the exception of the production and use of poison gas – the development of new technology was often small in scale, reactionary in nature and practical in implementation, rather than originating as part of a considered approach to increase force effectiveness.

One of the first performance gaps identified following the onset of strategic stalemate in the 1914 campaign was the need for a portable form of artillery which could be used

³¹ Anthony Saunders, *Reinventing Warfare, 1914-1918: Novel Munitions and Tactics of Trench Warfare* (London, 2012), 3.

against entrenched positions from close range.³² On 11 November, officers in IV Corps noticed the appearance of trench mortars in the German lines and Lieutenant-General Sir Henry Rawlinson, the GOC IV Corps, sent his brother Toby – an officer on his staff – to Paris ‘to make something to counter it’.³³ When he returned two weeks later, Toby Rawlinson brought with him four prototype trench mortars and began trials to test their viability in action. While their short range and small size of shell meant that IV Corps war managers could only describe the tests as ‘fairly satisfactory’, Rawlinson still sent the mortars to the trenches and dispatched his brother back to Paris to conduct more experiments.³⁴ By 12 December, engineering officers in I Corps had started work on making their own trench mortars out of steel piping found in the local district and, by the end of the year, had begun to adapt a model of trench mortar which the French Tenth Army had found to be simple and effective.³⁵ In the first week of January 1915, experiments were made by the 1st Irish Guards in which trench mortar fire was combined with that of snipers to dispel an enemy attack and, in March, Lieutenant Marion Crawford of the 4th Guards Brigade conducted his own experiments to find the most effective means of employing groups of trench mortars in offensive action.³⁶ That the reports created in both these experiments were passed up the chain of command and then disseminated across the force is further evidence of the importance of bottom-up adaptation at the tactical level. In the following months a number of adaptations and modifications were made to the trench mortars until, in July, a design by Wilfred Stokes

³² Saunders, *Reinventing Warfare*, 48.

³³ CAC, Rawlinson Papers, RWLN 1/1, Diary, 11 November 1914.

³⁴ CAC, Rawlinson Papers, RWLN 1/1, Diary, 28 November 1914.

³⁵ NLS, Haig Papers, Ac.3155/98, Typescript Diary, 12 and 30 December 1914.

³⁶ TNA, WO95/590, First Army General Staff War Diary, Major Trefusis to Brigadier-General Cavan, 2 January 1915.

was adopted as standard. Stokes' new weapon was safe, easy to use and quick-firing and was seen by Haig as being of 'great value...for trench warfare and for use against defended houses in which there are several machine-guns'.³⁷ The creation and use of trench mortars in offensive action demonstrate the process of battlefield adaptation at work: a performance gap was identified, experiments to resolve the problem were made, and a product was created and then refined until a successful version was mass-produced and supplied *en masse* to the force.

Another example of technological adaptation in the 1915 campaign was the development of rifle and hand grenades as both offensive and defensive weapons. Indeed, such was the importance of these weapons on the western front, that a training pamphlet, circulated in October 1915, opined that 'the grenade had become one of the principal weapons in trench warfare'.³⁸ Hand grenades were not new weapons for the British Army; they had been used throughout the Crimean War and in siege tactics during the Boer War although no provision had been made prior to 1914 in training troops for their use in trench warfare. Furthermore, the need to light a fuse on the grenade prior to throwing it was responsible for numerous casualties in the British ranks, particularly when the thrower hit the grenade on the back wall of their trench, causing a premature explosion.³⁹ For Haig, that the BEF did not have small, effective 'hand bombs' meant that they were 'certainly fighting at a disadvantage' compared to the Germans.⁴⁰ To

³⁷ NLS, Haig Papers, Acc.3155/102, Typescript Diary, 20 July 1915.

³⁸ IWM, GHQ, CDS74 – *The Training and Employment of Grenadiers* (October 1915). 1.

³⁹ Anthony Saunders, *Weapons of the Trench War, 1914-1918* (Stroud, 1999), 3.

⁴⁰ NLS, Haig Papers, Acc.3155/98, Typescript Diary, 24 December 1914.

counter these difficulties parties of the Royal Engineers began to experiment with making their own grenades in workshops close to the front lines. There was, however, no central coordination of grenade production in the First Army and this resulted in a great number of different types of grenades being produced and different formations referring to the same grenades by different names, leading to much confusion.⁴¹ Typically, individual infantry divisions created their own system of grenade production; in the 9th Division, the Royal Engineers preferred to supply the troops with the ‘Bethune Bomb’, in the 8th Division the engineers adapted petrol tins and jam pots to create rudimentary weapons.⁴² As with the production of trench mortars, adaptation and modification continued until a superior pattern was developed. The end product was the Mills Bomb which was first designed in February 1915 and sent for combat testing in March, although large quantities were not supplied to the BEF on the western front until September.⁴³ Thereafter, the Mills Bomb remained the standard pattern of hand grenade for the remainder of the war.

While the creation and adaptation of trench mortars and grenades represented two of the inventions with the most impact, others were less successful. Lieutenant Philip Christison, the machine-gun officer of the 6th Cameron Highlanders, recorded that his battalion went into action with a weapon known as a ‘ballista...a giant elastic catapult

⁴¹ John Ewing, *The History of the 9th (Scottish) Division, 1914-1918* (London, 1921), 13.

⁴² Ewing, *Ninth Division*, 14; J. H. Boraston and Cyril Bax, *The Eighth Division 1914-1918* (London, 1926), 15.

⁴³ Gordon Rottman, *The Hand Grenade* (London, 2015), 13.

which could hurl a grenade about 200 yards'.⁴⁴ Officially known as a Leach Catapult after its inventor, the ballista was a prime example of the experimental nature of battlefield adaptation in 1915. While it benefitted from being operated silently, the need to fire it in the open made a tempting target for German artillery and machine-gunners; as Christison noted, at Loos the teams operating the battalion catapults were all killed after being able to fire off only one or two grenades.⁴⁵ They were soon abandoned and replaced by more reliable technology. While the Leach Catapults were supplied to units by the War Office and by GHQ, other inventions originated within the units' own structure. The 1st Division created an 'Inventions Committee' with the remit of considering novel inventions devised by soldiers of its constituent infantry battalions, artillery batteries and engineering companies.⁴⁶ Evidence of only one of their inventions survives; the 'Reversible Trench-Stopper Mark I' was a piece of trench defence apparatus that would allow enemy soldiers to pass one way along a trench through a type of doorway while large 'projecting blades' meant that they would then be trapped on the other side, supposedly making them easier to kill.⁴⁷ The proposal was submitted to the Inventions Committee by Brigadier-General Cecil Lowther, the GOC 1 Brigade, but the committee decided not to forward it to other branches for implementation. While the creation and adaptation of new technologies was an important part of force development in 1915, the war managers of the BEF had a difficult task in analysing and assessing the

⁴⁴ IWM, Christison Papers, Doc.4370, unpublished memoir, 36.

⁴⁵ IWM, Christison Papers, Doc.4370, unpublished memoir, 36.

⁴⁶ TNA, WO95/1228, First Division General Staff War Diary, 26 June 1915.

⁴⁷ TNA, WO95/1228, First Division General Staff War Diary, Appendix 74, 'For Consideration by the Newly Appointed "Inventions Committee"'.

relative merits of small-scale tactical alterations which had been originally created to solve problems.

While the majority of technological adaptations on the western front resulted in the creation of new or improved weapons designed to increase the firepower effectiveness of tactical units, one development had the potential for greater impact in terms of winning the war.⁴⁸ During the Second Battle of Ypres, the German Army attacked the French, Canadian and British positions using poison gas. The British response was swift and two-fold; infantry divisions were trained to protect themselves from gas attacks and a programme of works was begun to develop Britain's own chemical warfare capabilities. Gas was quickly adopted by senior British war managers – and Haig in particular – as a weapon of great potential in unlocking the deadlock of trench warfare. Its ability to cause panic, as evidenced at the Second Battle of Ypres, could create a hole in the enemy's lines through which the BEF could channel its reserves.⁴⁹ This fitted well with Haig's operational methodology of fighting the decisive breakthrough battle. Indeed, Haig came to rely so heavily on the use of poison gas at Loos that he suggested to Sir William Robertson that the attack should only proceed if gas was to be used.⁵⁰ In the event, gas played a marginal role in the limited successes during the Battle of Loos. In many cases, the gas blew back onto the waiting British infantry and caused casualties in their ranks and, on several divisional fronts, made little impact on the German

⁴⁸ For an overview of the development of gas as a weapon during the Great War, see Edward Spiers, *Chemical Warfare* (Basingstoke, 1986, chapter two; and Donald Richter, *Chemical Soldiers: British Gas Warfare in World War I* (Barnsley, 2014).

⁴⁹ Palazzo, *Seeking Victory on the Western Front*, 44-56.

⁵⁰ NLS, Haig Papers, Acc.3155/101, Typescript Diary, 16 September 1915.

defences. Despite its fickle nature, gas became a familiar feature on western front battlefields. Its adoption by the British in 1915 demonstrates both the symbiotic relationship of technological adaptation and the willingness of British war managers to quickly and readily adopt new weapons with immense potential. While Palazzo has suggested that this shows a flexibility of approach in the mindset of the British war managers, it should be said that the technological innovations and adaptations of the 1915 campaign were employed firmly within the familiar, pre-war paradigm of war.⁵¹

While this section has focused on a limited number of the more important developments, the scale of technological adaptation in the Great War was astounding; between August 1915 and November 1918 47,949 inventions and ideas were submitted to the War Office's Munitions Invention Department.⁵² The creation and adaptation of trench mortars and rifle and hand grenades gives insight into the practical effects of organisational development at the tactical level of war. A war manager – Sir John French in the case of trench mortars – identified that the BEF required a weapon to carry out a specific task. Then, attempts were made to create or acquire such a weapon which was then tested, modified and used in the trenches. This demonstrates that one result of organisational development is the design or adaptation of a new piece of technology. The creation and improvement of trench mortars and grenades fits well into Catignani's categorisation of adaptation as a 'correction of errors' and agrees with Farrell's assertion

⁵¹ Palazzo, *Seeking Victory on the Western Front*, 55-6.

⁵² Saunders, *Weapons of the Trench War*, ix

that adaptation relates to a refinement of existing tactics, techniques and technologies.⁵³ The use of gas as an offensive weapon represents something different and can be seen as what Rosen described as ‘a new theory of victory’.⁵⁴ While Rosen coined this term with regards to intraservice innovation in peacetime, it suitably describes the approach adopted by the German Army at the Second Battle of Ypres and the British response at Loos. They had identified, created and used a weapon which had the potential, at least, to represent a new theory of victory; Haig certainly considered the use of gas as a means of making sure of gaining positions ‘in spite of the greatly improved defences’ which the enemy had created.⁵⁵ The creation and adaptation of trench mortars and grenades did not hold the same potential as the creation of a new gas. In short, the war managers complemented their adaptation of some minor weapons with the innovation of a new, potentially war-winning creation.

Structural Changes at the Tactical Level

Chapter one asserted that the structure of an organisation plays an important role in the organisation’s learning process. It found that at the operational level the creation of the First Army actively impeded that BEF’s ability to learn from its experiences by failing to determine who had responsibility for the force’s professional development and by failing to establish a formal system for data capture. However, structural changes in the 1915 campaign were not solely confined to the creation of the First Army. Rather, as the army underwent its mass expansion, new branches were established and the structure

⁵³ Catignani, ‘Coping with Knowledge’, 31; Farrell, ‘Improving in War’, 570.

⁵⁴ Rosen, *Winning the Next War*, 20. My emphasis.

⁵⁵ NLS, Haig Papers, Acc.3155/102, Typescript Diary, 21 July 1915.

of the division – the main battle unit – was changed, with many of these structural alterations stemming from technological adaptation and weapons creation discussed in the previous section. In terms of military innovation studies in twenty-first century conflict, alterations to the force structure have been shown to have sometimes originated at the tactical level.⁵⁶ For example, in Afghanistan in 2008, 3 Brigade recommended the creation of an ‘influence cell’ at brigade headquarters, a recommendation which was implemented by 19 Brigade in the subsequent tour then retained by 11 Brigade, such was its success.⁵⁷ In the First Army in the 1915 campaign, the process was different. While technological adaptations that originated at the bottom of the force hierarchy often resulted in changes to the force structure, the decision to alter the structure was taken at the top of the hierarchy and not by the individual divisions themselves. That any changes occurred is surprising given the position of the War Office in 1915, which opined that it had ‘objections to creating new organisations in the Army during the progress of the war if [it could] be avoided’.⁵⁸ This section examines how the tactical structure of the divisions of the First Army changed over the course of the 1915 campaign and evaluates the reasons for these changes.

During the Great War, the battalion was the standard operational unit of infantry in the British Army. At the declaration of war, infantry battalions were split into a headquarters, a transport section, a small machine-gun section, and four rifle companies,

⁵⁶ Farrell, ‘Improving in War’, 590.

⁵⁷ Farrell, ‘Improving in War’, 590.

⁵⁸ TNA, WO32/11239, Formation of Machine Gun Corps, Minute from the Director of Staff Duties to the Chief of the Imperial General Staff, 9 July 1915.

each of approximately 220 men. The rifle, then, was the primary weapon of infantry formations and British attack doctrine was shaped around its use both in the principle of ‘fire and movement’ which brought the infantry into contact with the enemy, and in the concept of the ‘mad minute’ in which a concentrated, intense period of rifle fire was designed to overwhelm the enemy.⁵⁹ Throughout the 1915 campaign, the idea of infantry as riflemen did not change substantially and it was not until February 1917 that the structure of an infantry platoon was formally altered from the pre-1914 model. Drawing upon lessons identified in the Somme campaign, war managers issued a pamphlet – *SS.143 – Instructions for the Training of Platoons for Offensive Action* – which recommended that each infantry platoon should ‘consist of a combination of all the weapons with which the Infantry are now armed’.⁶⁰ This pamphlet asserted that a ‘normal formation’ for each platoon would include a section of riflemen, a section of rifle grenadiers, a section of bombers, and a section of Lewis gunners. This structure was quickly implemented in the infantry battalions of the BEF; analysis of a platoon personnel list for Number Ten Platoon of the 6th Cameron Highlanders shows that this structure was certainly in use during the First Battle of the Scarpe in April 1917 and may have been informally adopted prior to the release of *SS.143*.⁶¹ However, while changes to the structure of infantry units did occur later in the war, there were few change of note over the course of the 1915 campaign.

⁵⁹ Griffith, *Battle Tactics of the Western Front*, 48-52; Jones, *From Boer War to World War*, ch.3.

⁶⁰ IWM, GHQ, *SS.143: Instructions for the Training of Platoons for Offensive Action* (Montreuil, 1917), 3.

⁶¹ LUSCD, Papers of Lieutenant Stuart Cameron, GS0256, handwritten list of platoon personnel, dated 1916. See also, Patrick Watt, ‘The Platoon: No.10 Platoon, 6th Queen’s Own Cameron Highlanders in the First Battle of the Scarpe, April 1917’, *Journal of the Society of Army Historical Research* 91.4 (Winter 2013), 299-319.

The alterations to the force structure, which occurred in the 1915 campaign, represented the war managers' attempts to increase the tactical capabilities of their main battle units, particularly in terms of the amount of firepower they could bring to the offensive. Indeed, many of the technological adaptations mentioned in the previous section led directly to adaptations of brigade and divisional structures. Following testing in the first three months of 1915, Haig ordered that all infantry brigades should be equipped with trench mortars 'so they will be able to deal at once with any defended locality without having to send back and wait for distant artillery support'.⁶² Haig then ordered that the mortars should be organised into brigade 'bomb batteries' under the command of a Trench Mortar Officer.⁶³ Early in the 1916 campaign, the structure of the divisional trench mortar batteries were 'placed on a more satisfactory basis' and 'Stokes Mortar Batteries' were established, each drawing their personnel from the divisional infantry.⁶⁴ In the context of organisational development, these structural alterations can be seen to have stemmed from war managers' identification of the need to have a portable system of artillery supporting the infantry attacks. Brigade Grenade Companies were organised on a more informal basis; the 7th Division formed their Brigade Grenade Company in December 1914 following their experiences in fighting at Ypres and in Artois but the Canadian Division took until April 1915 to form their own dedicated unit of grenadiers.⁶⁵ The use of gas on the western front also necessitated a change to the force

⁶² NLS, Haig Papers, Acc.3155/100, Typescript Diary, 9 April 1915.

⁶³ NLS, Haig Papers, Acc.3155/100, Typescript Diary, 13 April 1915.

⁶⁴ Ewing, *Ninth Division*, 81.

⁶⁵ Atkinson, *Seventh Division*, 125; Iarocci, *Shoestring Soldiers*, 72.

structure albeit at a level removed from the division. In July 1915 two ‘Specialist Companies’ were created under the guidance of Major Charles Foulkes of the Royal Engineers with two more following in August, half being attached to the First Army and half to the Second Army. Such was the success of the Special Companies that one of Haig’s first actions following his promotion to Commander-in-Chief in December 1915 was to recommend the expansion of the Special Companies into a Special Brigade, headed by a Director of Gas Services at GHQ.

Many of the structural changes occurred as a response to tactics adopted by the German Army and which had resulted in localised battlefield successes against the British and French. An example of this, which was not derived from a technological adaptation, was the creation of the Tunnelling Companies of the Royal Engineers. On 20 December 1914, German engineers dug tunnels under no-man’s-land at Givenchy and blew a series of ten small mines under basic trenches held by the Sirhind Brigade of the Indian Corps. The explosions were accompanied by an artillery bombardment and were followed by a rapid infantry advance which resulted in the capture of the entire Sirhind Brigade’s front and supporting trench systems.⁶⁶ The structural changes of the British infantry divisions which followed, demonstrates a rapid acceptance on the part of the war managers that the structure of tactical units would have to change in response to the conditions of war on the western front. While elements of the Indian Corps had been experimenting with small-scale mines since November 1914, few formal tests had been conducted and the

⁶⁶ Corrigan, *Sepoys in the Trenches*, 117-21.

units lacked trained engineers to advise on the practice of tunnelling.⁶⁷ However, in late-December 1914, GHQ ordered the First and Second Armies to select from among their ranks, 'suitable personnel' to form into Brigade Mining Sections.⁶⁸ The creation of these informal units was, however, haphazard in nature and unevenly implemented across the force; for example, the plans to form Brigade Mining Sections in the Canadian Division were interrupted by their participation in the Second Battle of Ypres in April 1915 and were not resumed until July.⁶⁹ However, in an example of tactical adaptation driven from the bottom-up, some officers within the Canadian Division structure undertook their own unofficial mining operations prior to the resumption of the creation of Brigade Mining Sections.⁷⁰

Concurrently, Major John Norton-Griffiths, a cavalry officer who had worked as an engineer before the war, wrote to the War Office in December 1914 suggesting that techniques he had used in improving drainage systems in Manchester could be used in support of the war effort to dig under German positions.⁷¹ Norton-Griffith's suggestion was initially dismissed, however, in February 1915, he was ordered to France to begin the organisation of eight specialist tunnelling companies, which were to be incorporated into the First Army structure, a development which marked the first permanent change in force structure which had resulted from the experience of fighting on the western

⁶⁷ Willcocks, *With the Indians in France*, 103-4.

⁶⁸ Edmonds, *British Official History*, 1915 Vol.1, 33.

⁶⁹ Iarocci, *Shoestring Soldiers*, 255.

⁷⁰ Iarocci, *Shoestring Soldiers*, 255.

⁷¹ C. R. Wilson, 'Lieutenant-Colonel Sir John Norton Griffiths', Royal Engineers Museum website, www.remuseum.org.uk (accessed 5 April 2017).

front.⁷² In what was a private, although officially sanctioned, enterprise, Norton-Griffiths visited the headquarters of New Army units that were likely to have trained miners among their ranks, including the Northumberland Fusiliers, Duke of Cornwall's Light Infantry and the Yorkshire Light Infantry of the 23rd Division, and arranged for men to be transferred to the new tunnelling companies.⁷³ Furthermore, he actively arranged for commissions for trained civilian mining engineers and appropriated the necessary tools of the trade so that the men arrived in France fully equipped for their task.⁷⁴ Such was the success of Norton-Griffiths' endeavour twenty-five tunnelling companies of the Royal Engineers were created by the start of the Somme campaign in July 1916.

A further, particularly influential, structural adaptation in the BEF during the Great War was the establishment of the Machine Gun Corps. While this was finalised in January 1916, its origins lay in the early days of the 1915 campaign. Each infantry battalion proceeded to war with two Maxim machine-guns, a number which doubled in February 1915, and which was supplemented by the arrival of four Lewis Guns prior to the Battle of Loos. The increase in number of machine-guns can be explained partly as a realisation of their power in both offensive and defensive situations, and as a result of the expansion of the army, which entailed a reduction in musketry standards. In early 1915, each division was given a Motor Machine Gun Battery whose original role had

⁷² TNA, WO158/129, Inspector of Mines: Formation of Special Mining Units Correspondence, Major J. Norton-Griffiths, "Moles" Diary, 13th February to 31st May 1915.

⁷³ TNA, WO158/129, Inspector of Mines: Formation of Special Mining Units Correspondence Major J. Norton-Griffiths, "Moles" Diary, 28 February 1915.

⁷⁴ TNA, WO158/129, Inspector of Mines: Formation of Special Mining Units Correspondence, Major J. Norton-Griffiths, "Moles" Diary, 1 March 1915; Norton-Griffiths to GHQ, 3 March 1915.

been as armoured despatch riders but who, with the onset of trench warfare, served mainly as auxiliary machine gun sections. Some commanders in the First Army viewed these units as ineffective, having ‘come out with the wrong ideas and little training’, and with leaders unsure of their roles in the wider divisional structures.⁷⁵

In the summer of 1915, the first steps were taken to draw together the various machine-gun units into one centralised corps. The catalyst for this change was the heavy rate of casualties incurred in the opening months of the 1915 campaign. At that point, officers commanding individual reserve infantry battalions were responsible for furnishing front line service battalions of the same regiment with trained machine gunners. This arrangement meant that, owing to the ‘unevenness of casualties’ during an attack, some units lost all their machine-gunners and others lost none, leading to a situation when half-trained men were being sent to the front to replace casualties.⁷⁶ The solution was devised by the Director of Military Training at the War Office, Sir Frederick Heath-Caldwell, who suggested setting up a dedicated Machine Gun Corps, with one machine-gun company attached to each infantry brigade, complementing rather than replacing the existing battalion Lewis gunners, and streamlining the training and replacement of those in France.⁷⁷ In terms of firepower, each battalion’s four Vickers machine-guns were replaced by four lightweight Lewis Guns and the sixteen Vickers guns then formed into a brigade machine-gun company in a move which was considered by the War Office to

⁷⁵ TNA, WO95/591, I Corps General Staff War Diary, Horne to I Corps headquarters, 17 March 1915.

⁷⁶ TNA, WO32/11239, Formation of Machine Gun Corps, Minute by Brigadier-General F. Heath-Caldwell, 5 July 1915.

⁷⁷ TNA, WO32/11239, Formation of Machine Gun Corps, Minute by Brigadier-General F. Heath-Caldwell, 5 July 1915.

be ‘a tactical necessity’.⁷⁸ These machine gun companies were drawn together under the auspices of the Machine Gun Corps on 30 November 1915 in a prime example of the structural adaptation of the force in response to the changing nature of war on the western front.

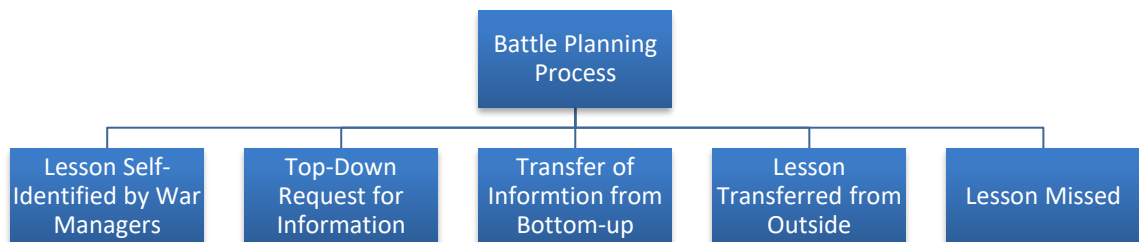
While the British Army was initially resistant to structural change during active operations, it displayed a remarkable ability to quickly adapt its structure in response to changes at the tactical level throughout the 1915 campaign. This change was driven by the war managers both in the field and at the War Office in London and often occurred in response to German tactics; Trench Mortar batteries, brigade grenade companies, the Special Companies of the Royal Engineers and the Tunnelling Companies were structural changes which originated after the British Army copied tactical experiments conducted by the German Army. This, then, could be termed adaptation through emulation. Furthermore, the creation of the Machine Gun Corps stemmed from administrative necessity rather than innovative thinking. In short, none of the structural changes which occurred at the tactical level in the British Army in the 1915 campaign originated as part of a considered approach to increasing force effectiveness; rather they were reactionary in nature and practical in implementation.

⁷⁸ TNA, WO32/11239, Formation of Machine Gun Corps, ‘Minutes of a Conference held on 10th September 1915’.

Conclusion

This chapter set out to address institutional change at the tactical level in the First Army in the 1915 campaign. It found that in terms of technological and structural adaptation the war managers were quick to embrace new, experimental weapons and to incorporate them into their force structure. In terms of knowledge-transfer some officers proved adept at using their initiative to transmit information up the army hierarchy without waiting for formal orders to do so. This information, which was created at the bottom of the army hierarchy, represents an important facet of institutional change and is reflected in alterations to the structure of the Organisational Development Model as it was described in chapter two. Figure 3.1, below, illustrates this change to the third stage of the Organisational Development Model.

Figure 3.1: Methods of Identifying Lessons at the Tactical Level



These five possibilities represent how the war managers of the First Army – at all levels – could consider their experiences and affect institutional change. When the four methods by which new data could be created are taken as a whole, the war managers

were presented with a collection of new information based on the experiences of individuals. Subsequent stages of the Organisational Development Model will demonstrate how this new knowledge was considered, whether it was accepted or rejected, and then how it was used to alter the norms and practices of the BEF. This chapter has briefly highlighted two results of this process. In the first place, experience on the front lines could result in the creation of new technology. This could either be minor in scope, such as the development of a new type of grenade, or it could be seen as being a new theory of victory such as the development of an offensive gas programme. Second, these technological adaptations could result in the alteration of the force structure as the war managers sought to increase the offensive firepower of their tactical units. However, these institutional changes relied on the willingness and ability of the war managers not only to consider the pool of accumulated new knowledge but also to be proactive in using it to affect force change.

Chapter Four

War Management: Leadership and Managing the Loss of Knowledge

If one tries to list all the qualities a good leader must have one gets bogged down in an attempt to define the perfect person – who does not exist.¹

General Sir John Smyth VC

The role of the war managers in the 1915 campaign, as in the wider war, has been the subject of sustained criticism since shortly after the end of hostilities.² Indeed, John Bourne opined that ‘few groups in British history have been the subject of such vilification as the Western Front generals of the Great War’.³ For Alan Clark, they were ‘the donkeys’; for Sir John Keegan, the war managers were ‘that hideously unattractive group’; and for A. J. P. Taylor the army consisted of ‘brave, helpless soldiers [and] blundering, obstinate generals’.⁴ In the post-war era these war managers presented an ‘easy scapegoat’ for the huge loss of life caused by the conditions of war on the western front and were often perceived as a privileged elite who did not share the dangers of the men they commanded.⁵ For some commentators, the Great War was dominated by ‘chateau generalship’, through which general and staff officers uncaringly sent British

¹ John Smyth, *Leadership in Battle, 1914-1918: Commanders in Action* (Newton Abbott, 1975), 9.

² For a summary of the debate see, for example, John Bourne, ‘Haig and the Historians’, in Brian Bond and Nigel Cave (eds), *Haig: A Reappraisal 80 Years On* (Barnsley, 2009), 1-11.

³ John Bourne, ‘British Generals in the Great War’, in Gary Sheffield (ed.), *Leadership and Command: the Anglo-American Experience since 1861* (London, 1997), 97.

⁴ Clark, *Donkeys*; Sir John Keegan, quoted in Ian F. W. Beckett and Stephen J. Corvi, ‘Introduction’ to Ian F. W. Beckett and Stephen J. Corvi (eds), *Haig’s Generals* (Barnsley, 2006), 2; A. J. P. Taylor, quoted in Bourne, ‘British Generals’, 93.

⁵ Harris, ‘The Men who Planned the War’, 280.

heroes to certain death in fruitless, repeated attacks on fortified German positions from the safety of their headquarters behind the lines.⁶ This is an image which has largely endured, at least in the public consciousness. However, these stereotypical images have been countered in recent years by reappraisals of the war managers' conduct during the war, both through evaluations of individual commanders and through systematic studies of the war managers as a group.⁷ In particular, Simon Robbins study of the backgrounds, performance and reputations of some 700 senior officers over the course of the Great War demonstrated that despite profound institutional constraints, the war managers were able to adapt their working practices by mid-1918 and succeeded in defeating the main German army in battle.⁸ Paul Harris examined the development of the British General Staff and found that they played a crucial role in the final Allied victory, successfully managing changes in structure, organisation and personnel.⁹ Finally, Peter Hodgkinson studied infantry battalion commanders and found that this group responded particularly well to the challenges of modern warfare and often took the lead in driving institutional adaptation.¹⁰ In short, the stereotypes of the war managers, which have prevailed since the 1920s, do little to aid understanding of how the army actually functioned.

⁶ Frank Davies and Graham Maddocks, *Bloody Red Tabs: General Officer Casualties of the Great War, 1914–1918* (Barnsley, 2014), 3.

⁷ See, for example, John Baynes, *Far from a Donkey: the Life of General Sir Ivor Maxse* (London, 1995); Senior, *Haking: A Dutiful Soldier*; Robbins, *British Generalship in the Great War*.

⁸ Robbins, *British Generalship on the Western Front*, 132-42.

⁹ Paul Harris, 'The Men who Planned the War', 280-94.

¹⁰ Peter Hodgkinson, *British Infantry Battalion Commanders in the First World War* (Farnham, 2015).

This chapter examines the fourth level of the Organisational Development Model, in which the body of new operational and tactical information that was created and collated in the third level is considered by the war managers. It further asserts the importance of the individual war managers in both promoting and inhibiting organisational development. In business studies, it can be demonstrated that ‘organisational learning is manifested through interrelated patterns of human actions, processes and objects’ and can be viewed as ‘a system of human actions’.¹¹ This focus on the human aspect of learning in institutions agrees with Jim Storr’s assertion that ‘warfighting is fundamentally a human activity, in which humans choose what to do, consciously or subconsciously; rationally, irrationally or non-rationally’.¹² The focus of this chapter is on the men who had the greatest ability to implement change in the BEF – the high command. The overarching questions addressed in this chapter are: first, how did war managers influence knowledge management practices and how did their actions affect the organisational development process; and second, what drove the actions and assumptions of those individual soldiers who had responsibility for considering new information and promoting or inhibiting force change?

The chapter is split into three sections. The first section relates the importance of the war managers to the Organisational Development Model and presents a new theory for understanding the role of leaders in terms of institutional change and learning. Traditional interpretations of institutional change in the British Army of the Great War,

¹¹ David Schwandt and Michael J. Marquardt, *Organizational Learning: Form World-Class Theories to Global Best-Practice* (Boca Raton, FL, 1998), 54.

¹² Storr, *The Human Face of War*, 17.

such as the study of the learning curve, see learning as a cumulative process in which new knowledge is continually acquired until a point is reached when that accumulated knowledge can be used to achieve a decisive victory on the battlefield.¹³ This section argues that while the accumulation of new knowledge was an important factor in promoting organisational development, the management of the loss of knowledge was equally as important in understanding the nature of institutional change in the First Army in 1915. Having asserted the importance of the war managers' role in considering newly-created information this chapter then examines the characteristics of the group of men with responsibility for making these decisions. The second section examines the war managers' self-image and group dynamics. It studies the war managers' relationships and opinions of each other as soldiers, and presents a platform for understanding how they, and their peers, perceived their role as leaders. The final section studies the development of the First Army war managers as a group over the course of the 1915 campaign. In order to provide a comparison, three datasets have been created which establish profiles of the war managers at three specific points in the First Army's campaigns of 1915 and 1916: the first dataset examines the group on the first day of the Battle of Neuve Chapelle, 10 March 1915; the second dataset studies the group on the first day of the Battle of Loos, 25 September 1915; and the third dataset looks at the group on the first day of the Battle of Fromelles, 19 July 1916. This section addresses two questions. First, how did the group of war managers change over the

¹³ This corresponds with ideas of learning curves in non-military institutions. See, Martin de Holan and Nelson Phillips, 'Organisational Forgetting' in Mark Easterby-Smith and Marjorie Lyles (eds), *The Handbook of Organisational Learning* (London, 2011), 434, who suggest that 'learning curve models establish a positive relationship between experience and positivity; as organisations repeat a certain task, they learn, leading eventually to an accumulation of knowledge that translates into improved outcomes'.

course of the 1915 campaign? Second, what factors caused these changes? Finally, the chapter demonstrates how leadership and war management are reflected in the wider Organisational Development Model.

Organisational Development and Knowledge Management

Chapters two and three demonstrated the importance of the war managers in identifying, creating and collating new information based on their experiences of battle. This section examines what they then did with that new information. In considering the new data, the war managers were faced with a choice to accept or reject the lessons identified in the post-battle analysis. In the short-term, lessons which were accepted were then used on an *ad hoc* basis in planning the next battle, and in the long-term were disseminated across the force and were institutionalised in official doctrine.¹⁴ This presents a positive interpretation of adaptation, in which learning occurs through knowledge being continuously accumulated. That model agrees with earlier interpretations of institutional change, such as the learning curve, through which the war managers learned more and more until they had accumulated enough experience and materiel to defeat the German Army in the field. However, this section demonstrates that while the acceptance of new information represented a crucial facet of the learning process, it was not the only factor that affected adaptation in the BEF. In terms of knowledge management, the complex manner in which new knowledge was rejected by war managers also played an important role in organisational development of the First Army.

¹⁴ These processes will be discussed in full in chapter five.

In his memoirs, British Prime Minister, David Lloyd George, asserted that when the Great War began the high command ‘had much to unlearn’ before they could begin to consider new lessons, as ‘their brains were cluttered with useless lumber in every niche and corner’.¹⁵ While Lloyd George’s views were coloured by his own distaste for the war managers in general, and Haig in particular, his comment highlights an aspect of knowledge management which has not been critically examined with respect to the First Army; namely, how did the high command manage the loss of knowledge in terms of discarding that which was not required or deemed relevant? Analysis of operational war diaries and private papers reveals that there were four main ways in which knowledge was lost: it could be rejected outright, it could be forgotten, it could be misinterpreted, and, finally, it could be discarded but remained available to be recalled at a future point. This section examines the relative importance of these factors in the organisational development of the First Army in 1915.

The first of the four means by which knowledge was lost involved the rejection of a lesson or observation because the immediate strategic conditions rendered it unachievable. A prime example of this concerns the war managers’ view that with more men and munitions a rapid Allied victory was inevitable. General Sir Douglas Haig met with Charles Repington, an influential correspondent with *The Times* at his headquarters in Merville on 22 January. During the meeting, Repington asserted that, to him, the German line was impregnable, and he asked Haig if he thought an advance could ever be

¹⁵ David Lloyd George, quoted in Hew Strachan, ‘Introduction’, to Hew Strachan (ed.), *Big Wars and Small Wars: The British Army and Lessons of War in the Twentieth Century* (London, 2006), 1.

made on the First Army's front in Artois. Haig's response says much about his optimism early in the 1915 campaign. 'As soon as we [are] supplied with ample artillery ammunition of high explosive', Haig opined, 'we could walk through the German lines at several places'.¹⁶ This observation, made before the First Army had taken the offensive in the 1915 campaign, seems to be a plausible statement; it was entirely reasonable at this stage to suggest that if the First Army had a substantial accumulation of artillery ammunition they would have had a greater chance of achieving a breakthrough of the German positions. Indeed, Haig's observation indicates that the lessons of fire-power supremacy which were identified following the Boer War did not totally disappear with the renewed emphasis on elan, personal bravery and offensive thought as taught by the experience of the Russo-Japanese War. Haig's opinion on the need for more artillery ammunition did not change following consideration of his, and the wider First Army's, experience at the Battle of Neuve Chapelle and, on 20 March, he confided in his diary that 'given sufficient H[igh] E[xplosive] we could drive the Germans out of France in 6 weeks'.¹⁷ The lesson identified here by Haig was to all intents and purposes moot; the poor supply of ammunition from Britain in 1915 meant that the war managers were never going to be able to accumulate enough ammunition to enable their forces to walk over the German lines on as broad a front as Haig desired. As a result of the failure to mobilise British industry on the same scale as its armed forces, the lesson that more ammunition would be key to winning the war could not be accepted and implemented.

¹⁶ NLS, Haig Papers, Acc.3155/100, Typescript Diary, 22 January 1915; see also, diary entry for 11 January.

¹⁷ NLS, Haig Papers, Acc.3155/100, Typescript Diary, 20 March 1915.

Evaluation of the evolution of the First Army's application of firepower in the preparatory bombardments provides examples of how specific lessons were incorporated into battle plans. It also demonstrates three further means by which knowledge could be lost to the institution: forgetting, misinterpreting, and discarding. The artillery plan for the Battle of Neuve Chapelle was innovative and speculative. While Major-General Freddy Mercer, the Commander of the Royal Artillery (CRA) at First Army headquarters proposed bombarding Neuve Chapelle 'by compartments' over a period of four days, Haig believed that it would be more effective to condense the fire into a 'terrible outburst' for three hours prior to the attack and to follow it by a 'sudden rush of our infantry'.¹⁸ This tactic, which placed a heavy emphasis on the destruction of the barbed-wire defences and the German trenches behind, became known as the 'hurricane bombardment'. At Neuve Chapelle, the hurricane bombardment used 535 artillery pieces and lasted for thirty-five minutes. Except on the extreme British left, the bombardment was successful and allowed the capture of the German front line by the British and Indian infantry. Sanders Marble demonstrated that while the plans for the wire-cutting were well thought out, the bombardment of the trenches was not.¹⁹ However, in the post-battle analysis, the bombardment was taken as the template for future attacks and the crucial links between the importance of the bombardment and the wire-cutting were forgotten.

¹⁸ NLS, Haig Papers, Acc.3155/100, Typescript Diary, 10 February 1915. Haig's views may have been shaped here by his chief of staff, Sir John Gough: see, for example, Watt, 'Douglas Haig and the Planning of the Battle of Neuve Chapelle', 194.

¹⁹ Marble, *British Artillery*, 74.

The Battle of Aubers Ridge demonstrated that just because something had worked in one specific set of conditions, it might not work in another. In relation to the scale of the operation, the battle represented a reduction in the strength of firepower used to destroy the German trenches in the preliminary bombardment: at Neuve Chapelle 535 guns had been used to attack a front of 1450 yards of German trench; at Aubers Ridge 623 guns attacked 5080 yards of front.²⁰ When the diversion of artillery resources onto points in the second and third lines of resistance are included, the intensity of the artillery barrage at Aubers Ridge was only a fifth of that at Neuve Chapelle.²¹ The result was that the protective wire around the German front line trenches remained unbroken by the reduced British artillery fire, leaving the infantry little chance of successfully breaching the German lines. Following the failure to replicate even the modest successes of the opening morning at Neuve Chapelle, the First Army war managers abandoned the lesson that the hurricane bombardment was an effective means of breaking into the German trench system and adopted more methodical, deliberate artillery bombardments which began several days before the infantry attack.

The reason for this change in methodology was not a sudden realisation that the new solution would be a war-winning development, rather it was a quick rejection of a lesson which they had identified, had tried to replicate, but which had failed. The fault for the incorrect deduction lay with the First Army's leadership. While they were correct to

²⁰ Lloyd, *Loos: 1915*, 101-2.

²¹ Prior and Wilson, *Command on the Western Front*, 84-5.

identify the hurricane bombardment as a successful lesson that could be drawn from the Battle of Neuve Chapelle, they were wrong to think it would work again without modification to the specific operational conditions present at Aubers Ridge. In this, the First Army's war managers did not realise the symbiotic nature of adaptation and learning on the western front in 1915. As much as they attempted to learn from their experiences, the German war managers also divined lessons from the Battle of Neuve Chapelle. While the lack of ammunition supplied from home meant that for the British the proposed offensive on Aubers Ridge was postponed, for the German Army it allowed time to turn their light field defences into semi-permanent fortifications.²² Furthermore, it allowed the creation of a German defensive doctrine which envisaged the creation of a front line trench system capable of resisting attacks by far superior numbers over a prolonged period of time, backed up by two further lines of trenches, the final line out of reach of the British artillery.²³ In directly applying the lessons of Neuve Chapelle to Aubers Ridge the war managers misinterpreted the lesson and failed to recognise that the German Army too would be looking to learn from its experiences.

Aubers Ridge marked the last time the hurricane bombardment was used in the 1915 campaign, however it did re-emerge as a popular tactic at the end of the 1917 campaign during the Battle of Cambrai and was used extensively in the Hundred Days campaign in

²² Alexander Kearsley, *1915 Campaign in France: The Battles of Aubers Ridge, Festubert and Loos considered in relation to the Field Service Regulations* (Aldershot, 1929), vii-viii.

²³ Graeme Wynne, *If Germany Attacks: The Battle in Depth in the West* (London, 1940). For a recent appraisal of the German defensive system opposite the First Army see Jack Sheldon, *The German Army on the Western Front, 1915* (Barnsley, 2012).

1918.²⁴ The re-emergence of this knowledge demonstrates that while a lesson could be identified and incorporated into the battle planning process for the next action, it might not be regarded as a permanent alteration of tactics and could be discarded if proven to be no longer applicable to the immediate conditions of war or else through mismanagement by the institutional leadership. In order for the lesson of the success of the hurricane bombardment to have been used in late-1917, it must have remained stored in the organisational memory of the First Army or that of the wider BEF. As chapter one asserted, the ‘knowledge repositories’ available to the war managers of the First Army were intangible and there was no formal system in place which provided for the storage of new information. Thirty months of preparing for battle using a methodical bombardment had seen few operational successes on the western front. In seeking a solution to the deadlock, war managers combined an old concept with new technology in the form of tanks and aeroplanes, and new infantry infiltration tactics, to create an all-arms battle plan which achieved more initial operational success than the battles of the 1915 and 1916 campaigns. In this, war managers were able to retrieve discarded lessons and modify them to suit the immediate conditions of war in a way that they did not do in earlier campaigns. The discarding of knowledge by institutions has been described as ‘unlearning’.²⁵ This concept was explained by Prahalad and Bettis as a ‘process by which [organisations] eliminate all logics and behaviours and make room for new

²⁴ Bidwell and Graham, *Fire-power*, 78; Boff, *Winning and Losing on the Western Front*, 123-59; and for Cambrai see Bryn Hammond, *Cambrai 1917: The Myth of the First Great Tank Battle* (London, 2008).

²⁵ Bo Hedberg, ‘How Organisations Learn and Unlearn’, in Paul Nystrom and William Starbuck (eds), *Handbook of Organisational Design: Adapting Organisations to their Environment* (New York, 1981), 18.

ones'.²⁶ In the case of the British First Army in 1915 this does not quite apply; it suggests a radical paradigm shift rather than the rejection of specific lessons learned from the experience of battle. Easterby-Smith suggested that there are two different forms of unlearning: the first is the radical process described by Prahalad and Bettis and the second is an incremental process in which new information is stored on top of old information, rendering the latter more difficult to retrieve.²⁷ Easterby-Smith's idea of incremental unlearning accurately describes how the First Army war managers rejected the hurricane bombardment after Aubers Ridge and replaced it with the alternative strategy of the long methodical bombardment, as it had itself replaced earlier methodologies after its success at Neuve Chapelle.

Catignani's assertion that at any stage of the learning process knowledge could be lost or discarded holds true for the artillery preparation in the First Army in 1915.²⁸ Lessons could be lost in four main ways. First, they could be viewed as unchangeable as in the manner that Haig realised he would achieve more operational success with more high explosive ammunition, and rejected on the basis that more high explosives would not be forthcoming. Second, new knowledge could be forgotten as in the case of the links between wire-cutting and the bombardment of trenches at Neuve Chapelle. Third, new knowledge could be misinterpreted, such as applying the fire-power lessons of Neuve Chapelle to Aubers Ridge without due consideration for the changes in operational

²⁶ C. K. Prahalad and Richard Bettis, 'The Dominant Logic: A New Linkage between Diversity and Performance', in Ken Stanley, Sue Tempest and Alan McKinley (eds), *How Organisations Learn: Managing the Search for Knowledge* (London, 2004), 87.

²⁷ Mark Easterby-Smith, 'Disciplines of Organisational Learning: Contributions and Critiques', *Human Relations* 50.3 (September 1997), 1093.

²⁸ Catignani, 'Coping with Knowledge', 38.

conditions caused by German battlefield adaptation and the increase in length of front to be attacked. Finally, new knowledge could be discarded when it did not work but could be retrieved from the organisational memory at a later date as demonstrated by the example of drawing on the experience of Neuve Chapelle when planning the Battle of Cambrai.

The four processes outlined above – rejecting, forgetting, misinterpreting and discarding – highlight the ways in which knowledge could be lost to the wider BEF. There is, however, a further way in which knowledge was lost to the war managers – deliberate human agency. In considering his experience at Neuve Chapelle, the immediate lesson identified by Lieutenant-General Sir Henry Rawlinson, the GOC IV Corps, was that it was not worthwhile pressing home an attack on the first day once the enemy had manned his second line defences, if those rearward positions had not been bombarded by heavy howitzers.²⁹ Rawlinson had been skeptical of Haig's plans to break through and advance on the Aubers Ridge, preferring to limit the attack to the capture of Neuve Chapelle itself. Indeed, Rawlinson only broached the subject of a further advance with his divisional commanders on 6 March, four days prior to the battle.³⁰ In its aftermath, as much as Haig viewed his breakthrough strategy as a success, Rawlinson viewed it as a costly failure. Again writing to Kitchener, Rawlinson opined that casualties would have been reduced with a more limited attack and that the determination of 'our leaders'

²⁹ TNA, Kitchener Papers, PRO30/57/51, Rawlinson to Kitchener, 15 March 1915.

³⁰ Prior and Wilson, *Command on the Western Front*, 31.

to try to get the cavalry through was ‘the origin of our heavy losses’.³¹ By the end of March, Rawlinson had developed an alternative strategy to Haig’s breakthrough battle. Termed ‘bite and hold’, the plan involved a limited attack on a specific position and then holding it against the inevitable German counterattack and inflicting more casualties on the enemy than they inflicted on the British.³² Rawlinson did, however, acknowledge the difficulties in adopting a policy of bite and hold in a letter to Kitchener, in which he asserted that the methodology ‘does not of course result in any decisive victory which could affect the final issue of the war’.³³ While Rawlinson has received the credit for devising this alternative strategy in March 1915, he was, in fact, informed of it as early as 9 February by Major-General Sir Thompson Capper of the 7th Division. Capper advocated undertaking a ‘bombard and storm’ operation, the result of which would be ‘a “bite” out of the enemy’s entrenched line. This “bite” could be enlarged by fresh attacks until a hole was made through which a sufficiently large operating force could be poured’.³⁴ Rawlinson received this report on 9 February and forwarded it to Haig the following day, demonstrating that both commanders were aware of, and rejected, the alternative methodology early in the planning phase.³⁵

³¹ TNA, Kitchener Papers, PRO30/57/51, Rawlinson to Kitchener, 1 April 1915; CAC, Rawlinson Papers, RWLN 1/1, Diary, 14 March 1915, 25 March 1915.

³² National Army Museum, Rawlinson Papers, Letter Book, 1952-01-33-17, Rawlinson to Wigram, 25 March 1915; TNA, Kitchener Papers, PRO30/57/51, Rawlinson to Kitchener, 1 April 1915; CAC, Rawlinson Papers, RWLN 1/1, 14 March 1915.

³³ TNA, Kitchener Papers, PRO30/57/51, Rawlinson to Kitchener, 1 April 1915.

³⁴ TNA, WO95/1628, Seventh Division General Staff War Diary, Capper to Rawlinson, 8 February 1915

³⁵ TNA, WO158/374/2, Neuve Chapelle Report on Operations, Rawlinson to Haig, 10 February 1915.

Of greater significance here is the nature of information sharing. Rawlinson was a prodigious letter writer and chose to air his views over the problems of operational methodology with a range of individuals. Among his frequent correspondents were Lord Kitchener, the Secretary of State for War; Lord Stamfordham and Major Clive Wigram, the King's private secretaries; Lord Derby, the Director-General of Recruiting; and Lieutenant-General Sir Henry Sclater, the Adjutant-General at the War Office. While Rawlinson's 'bite and hold' methodology was a viable alternative to Haig's breakthrough plans, he failed to transmit this information through the proper channels to anyone further up the First Army war management hierarchy. Indeed, there is no indication of any suggested methodological changes in the IV Corps report on the battle, which consists of a simple hour-by-hour narrative of operations.³⁶ Rawlinson's diary suggests that the reason for this was personal. Following the battle Rawlinson attempted to place the blame for the delay in advancing from Neuve Chapelle onto Major-General Francis Davies, the commander of the 8th Division. Davies countered and asserted that he only acted on orders, which had originated at IV Corps headquarters, and that any blame should be apportioned to Rawlinson. Faced with this criticism of his conduct, Rawlinson eventually confirmed Davies' version of events. While Sir John French and Sir William Robertson advocated Rawlinson's removal from command, he was saved by the intervention of Haig. This marked an important milestone in Rawlinson's career. With Sir John French 'furious' at him, Rawlinson could not lobby GHQ for a change in attack methodology; with Haig as his 'good friend and staunch ally' Rawlinson felt

³⁶ TNA, WO158/374, Neuve Chapelle, Report on Operations, 'Report on the Operations of the IV Army Corps, 10th-15th March 1915', nd.

obliged to acquiesce to his operational plans.³⁷ Out of touch with one commander and beholden to the other, Rawlinson had to content himself with directing his ideas to individuals with limited or no influence over operational planning, thus rendering them largely ineffectual. The affair demonstrates the importance of personal networks in the learning process. When personal relationships broke down or where one party felt obliged to another a culture was created in which identified lessons were not, or could not be, shared.

A similar situation existed regarding the transfer of information from GHQ to First Army headquarters. As mentioned in chapter two, Brigadier-General John DuCane, the artillery advisor at GHQ, authored a memorandum on the operations at Neuve Chapelle on the orders of the CGS, Sir William Robertson. However, instead of forwarding DuCane's original findings to Haig at First Army, Robertson rejected some of DuCane's observations, annotated the report himself, and returned it to DuCane for substantial redrafting. DuCane duly redrafted the paper incorporating Robertson's suggestions, which materially altered the nature and substance of the report and erased the thoughtful suggestions DuCane had presented on altering First Army's operational methodology. By choosing to forward a redrafted paper to Sir John French, Robertson ensured, perhaps unwittingly, that DuCane's conclusions were shared only with a few select members of staff at GHQ rather than with Haig, who was the officer who was best placed to incorporate them into his own operational thinking.

³⁷ CAC, Rawlinson Papers, RWLN 1/1, Diary, 17 March 1915.

The war managers made identifiable mistakes, both when they considered the data with which they were presented in the post-battle analysis, and by not transmitting relevant information to the right individuals within the formation structure. In business studies, the manner in which knowledge is lost can be described collectively as ‘knowledge traps’.³⁸ These are further described as being circumstances, times or events ‘in which there is a loss of project-specific knowledge, where the project lacks some relevant knowledge, or where knowledge is not created or applied optimally’.³⁹ This section has examined the five ‘knowledge traps’ which affected the First Army’s organisational development in the 1915 campaign: rejecting, forgetting, misinterpreting, discarding and withholding knowledge. While it would be incorrect to suggest that eliminating these knowledge traps would have ensured rapid success on the battlefield, an awareness of, and more careful management of, the loss of knowledge may have led to a more open, flexible system of leadership and decision-making among the First Army war managers.

First Army’s War Managers: Characteristics and Image

When evaluating the consideration of new information, leadership and decision-making theory is not enough and a more complete understanding requires historical analysis of the human element in these specific circumstances. Only by examining the backgrounds and characteristics of the individuals who comprise a social group can the true nature of that group be realised. This section presents a demographic study of the characteristics and dynamic of the First Army war managers both as individuals and as a group. The

³⁸ Blaize Horner Reich, ‘Avoiding Knowledge Traps in Project Management’, Project Management Initiative, online, www.pmi.org (accessed 7 February 2017).

³⁹ Reich, ‘Avoiding Knowledge Traps’, www.pmi.org (accessed 7 February 2017).

men who made up the high command of the First Army in the 1915 campaign were drawn from a narrow section of society, being part of the aristocracy or the upper middle classes, with ties to the political and industrial establishment. In the First Army in the 1915 campaign, officers drawn from the aristocracy were present in a minority: Major-General the Earl of Cavan commanded both 4 Brigade and the Guards Division in the campaign; Major-General The Hon. Edward Montague Stuart-Wortley, a grandson of the 2nd Baron Wharncliffe, commanded the 46th Division; and Brigadier-General John Hepburn-Stuart-Forbes-Trefusis, the son of the 20th Baron Clinton, was killed commanding 20 Brigade shortly after the Battle of Loos. More common were upper middle-class officers from established military families. These included Lieutenant-General Sir Hubert Gough, whose father, uncle and brother not only attained the rank of general in the British Army, they were all awarded the Victoria Cross for bravery in the field; Major-General Sir Thompson Capper, whose brother John also commanded a division on the western front; and Major-General Sir Claude Jacob who was one of twenty-eight members of his family to have served in either the army of the East India Company, or later, the Indian Army.⁴⁰

Many of the war managers were descendants of families with ties to the business world, the church or to the civil service. For example, Lieutenant-General Sir Henry Rawlinson, commander of IV Corps throughout the 1915 campaign, was the son of the renowned diplomat and orientalist of the same name; Lieutenant-General Sir Richard

⁴⁰ The last example comes from Simon Robbins, *British Generalship during the Great War: The Military Career of Sir Henry Horne (1861–1929)* (Farnham, 2010), 2-3.

Haking, GOC 1st Division and XI Corps, and Major-General Charles Barter, GOC 47th Division, were the sons of clergymen; and Major-General Herman Landon, GOC 9th and 33rd Divisions, was the son of a successful cotton merchant in India. Added to this number was General Haig, whose father's occupation as a drinks' manufacturer in Fife led Brigadier-General Sir Reginald Pinney to disparagingly refer to his commander-in-chief as 'the opulent whisky distiller'.⁴¹ Any deviation from this stereotypical British background could be divisive; Brigadier-General Francis Wallerstein was described by one officer as 'an Austrian and presumably a traitor' on account of his foreign sounding name.⁴² While Wallerstein's family were German Jews rather than Austrians, he was self-conscious enough of his Teutonic heritage to change his name to the more anglicised Wallerston in order to fit in with his peer group. Only one senior war manager of the BEF bucked the trend of a privileged background; the CGS, Lieutenant-General Sir William Robertson, joined the 16th Lancers in 1877 as a private soldier after service as a footman in the household of the Countess of Cardigan.

The privileged background of the First Army war managers was amplified by their education. Simon Robbins, in his study of the British high command in the Great War, found that officers educated at public schools dominated the army.⁴³ Robbins' research demonstrated that over the course of the war 52.9% of all officers who held the rank of

⁴¹ Brigadier-General Sir Reginald Pinney, quoted in Robbins, *British Generalship during the Great War*, 5.

⁴² Glasgow University Special Collections Department, Papers of Francis J. MacCunn, MS GEN 532/27, MacCunn to his mother, 24 May 1915.

⁴³ Robbins, *British Generalship during the Great War*, 6.

brigadier-general or above were educated at the ten most prestigious public schools.⁴⁴ When the war managers of the First Army of the 1915 campaign are analysed, the dominance of a public school education – and these ten schools in particular – is even more stark. Of the twenty war managers with the rank of brigadier-general or above who held a command position at the Battle of Neuve Chapelle, and whose educational history can be identified, 70% attended the ten most prestigious schools; at the Battle of Loos the figure was exactly the same. Indeed, of the five corps commanders who served with the First Army at Loos, three – Lieutenant-Generals Gough, Pulteney and Rawlinson – all attended Eton. Even those who did not attend these ten top schools were still afforded a similarly privileged education: Lieutenant-General Sir Charles Monro attended Sherborne; Brigadier-General Anthony Reddie was a product of Fettes College, and Major-General Edward Bulfin was an old boy of Stoneyhurst. A public school education, and particularly the ethos instilled into the pupils, was seen as providing the new middle classes with the values of the old gentry.⁴⁵ They gave to their pupils a code of conduct rooted in Christian morality and romantic patriotism, while the playing of organised sports and games were viewed as being ideal preparation for a war in which leaders would have to quickly make decisions, take risks and disregard their own personal safety.⁴⁶ This education provided the basis for one of the organisational development inputs discussed in chapter two; knowledge gained through instruction.

⁴⁴ Robbins, *British Generalship on the Western Front*, 11. These schools were: Eton, Wellington, Harrow, Marlborough, Cheltenham, Charterhouse, Rugby, Clifton, Haileybury and Winchester.

⁴⁵ Michael Howard, 'Foreward' in Anthony Seldon and David Walsh, *Public Schools and the Great War: A Generation Lost* (Barnsley, 2013), xii.

⁴⁶ Timothy Halstead, 'The First World War and the Public School Ethos: The Case of Uppingham School', *War & Society* 34.2 (August 2015), 211-12.

That knowledge was further enhanced by professional training at the Royal Military College at Sandhurst or the Royal Military Academy at Woolwich. At Sandhurst, the infantry and cavalry officers were provided with ‘a basic military education, together with an introduction to discipline’ and at Woolwich, artillery and engineering officers learned the skills of the ‘technical’ branches of the army.⁴⁷ While the majority of officers completed the course at Sandhurst, some 30% of the war managers in the 1915 campaign had been commissioned without any form of professional education.⁴⁸ Lieutenant-General Sir William Pulteney and Major-Generals Edward Bulfin, Francis Davies and Edward Montagu Stuart-Wortley all entered the professional army through what was known as the ‘back door’ through which officers were commissioned into the local militia and sat a competitive examination for transfer to the regular army.⁴⁹ This method of entrance proved no barrier to a successful army career: Field Marshal Sir John French ‘neatly side-stepped’ the ‘drudgery’ of Sandhurst, and rose to command the BEF in 1914.⁵⁰ That being said, graduating from Sandhurst still was still viewed by many officers as being a desirable pathway into the army. Sir James Willcocks, who commanded the Indian Corps in 1915, was determined to attend despite twice being refused entry; he was successful on the third attempt. Once at Sandhurst, the standard of cadets varied considerably but poor performance there did not demonstrably limit an officer’s prospects. While Sir Douglas Haig passed out first in his class, Lieutenant-

⁴⁷ Sheffield, *The Chief*, 18.

⁴⁸ Richard Holmes, *Tommy: the British Soldier on the Western Front, 1914–1918* (London, 2005), 122.

⁴⁹ Holmes, *Tommy*, 123.

⁵⁰ Holmes, *The Little Field Marshal*, 19.

General Sir Charles Monro, who succeeded him as the commander of the First Army, passed out 120th in his intake of students. The war managers' professional education was augmented, for some, by training at the Staff College in Camberley but, like an education from Sandhurst, this was not a requirement for achieving high command in the BEF.

Analysis of the war managers as a group therefore reveals a number of commonalities. While there were anomalies – such as Lieutenant-General Robertson – the vast majority of the war managers came from a similar background and upbringing. In general, they were from the upper or upper-middle classes, had established family connections with the British Army and had been educated at public schools which had instilled an ethos which emphasised leadership, decision-making, bravery and physical prowess. Many had sought a professional military education at Sandhurst or Woolwich but a substantial minority had not. Furthermore, a number of the senior war managers – including Haig, Monro, Gough, Rawlinson and Haking – had passed the staff officers' course at Camberley. This demonstrates that while the war managers of the First Army were a homogenous group in terms of social class and background, in terms of professional education the quality varied widely, with some officers – notably Sir William Pulteney, GOC III Corps – rising to high command despite having attended neither Sandhurst nor Camberley.

While this analysis is useful in understanding the elementary demographics of the war management group, it does not reveal the group dynamics nor does it address what the

war managers thought about each other. It is difficult to find criticism of General Haig from his contemporary officers. Indeed, a comment in Haig's own diary illustrates one reason for this. When Sir John French became upset over Haking's criticisms of French's handling of the XI Corps reserve at the Battle of Loos, Haig instructed Haking to leave out the critical paragraph in his official report 'since this is a comment by a subordinate on the actions of his commanding officer'.⁵¹ While Haig was content to criticise Sir John French among the military and political establishment, he appears to have viewed criticisms emanating from subordinate officers as being unacceptable. It follows too that Haig would not tolerate subordinate's criticism of his own actions and, as a consequence, contemporaneous negative comments were limited to those of Lieutenant-General Sir Henry Wilson, an officer with whom Haig shared a mutual dislike.⁵²

First Army headquarters was a close-knit community and, by February 1915, still resembled the pre-war Aldershot command which Haig used as a model for First Army. Haig was assisted by a staff of thirty-nine individuals, although only five officers exercised any real influence over operational matters.⁵³ Indeed, even the degree to which these officers could affect Haig's thinking has been questioned; speaking of GHQ staff in June 1916, Lord Esher opined that Haig's staff was 'an excellent machine,

⁵¹ NLS, Haig Papers, Acc.3155/103, Typescript Diary, 9 November 1915.

⁵² See, for example, Wilson's comments on Haig in Jeffrey, *Field Marshal Sir Henry Wilson*, 165; and Haig's disdain of Wilson in NLS, Haig Papers, Acc.3155/141/84, Haig to Lady Haig, 26 January 1915; NLS, Haig Papers, Acc.3155/100, Typescript Diary, 1 March 1915

⁵³ Haig's 'inner circle' was confined to Richard Butler, his chief of staff; Tavish Davidson, his deputy chief of staff; John Charteris, the head of intelligence; and Brigadier-Generals Mercer and Rice, the chief artillery and engineering officers, respectively. The remainder of his staff largely comprised junior staff officers, aides des camps and liaison officers.

formed to carry out [Haig's] ideas and intentions', however none of his staff were forceful enough to actually influence his decision-making.⁵⁴ As many of the staff at GHQ in 1916 accompanied Haig from First Army, it is reasonable to assume that the same system applied in the 1915 campaign. This is confirmed by Major John Charteris, Haig's head of intelligence in 1915, who asserted that 'in many ways [Haig] is his own Chief of Staff. He knows so much more about fighting than any of the Staff.'⁵⁵ Haig's original chief of staff, Brigadier-General Sir John Gough, was killed in February 1915 shortly before he was to return to Britain to command a newly raised infantry division. Haig was 'badly upset, although he shows it little', wrote Charteris, adding that 'for us at First Army HQ it is like losing one of our own family'.⁵⁶ Haig's choice as Gough's replacement, Brigadier-General Richard Butler, was inexperienced for such a prestigious position. Butler began the war as a major on the general staff at Aldershot before being appointed to command the 2nd Lancashire Fusiliers in September 1914 and then 3 Brigade two months later.⁵⁷ His appointment ahead of more senior officers – Whigham, the BGGs of I Corps and Kiggell of the War Office – suggests that Haig was keen to surround himself with men with whom he was familiar from Aldershot and who would not question his authority. Haig's dominance of his staff in terms of decision-making asserts the importance of the First Army's senior war manager in the formation's organisational development. While other officers could make suggestions as to how best to proceed, the rigid hierarchical nature of the British Army combined with Haig's

⁵⁴ Lord Esher, quoted in Robbins, *British Generalship on the Western Front*, 119.

⁵⁵ John Charteris, *At GHQ* (London, 1931), 74.

⁵⁶ Charteris, *At GHQ*, 77.

⁵⁷ Ian F. W. Beckett, 'Butler, Sir Richard Harte Keatinge (1870–1935)', *Oxford Dictionary of National Biography*, Oxford University Press, 2004; online edn, Jan 2011 [http://www.oxforddnb.com/view/article/32216, accessed 21 Jan 2017]

forceful personality meant that the First Army's organisational development was inextricably linked to Haig's own personal learning process and his willingness to evaluate his experiences.

In terms of his subordinate officers, Haig's views were mixed. Of his five corps commanders, Haig used Lieutenant-General Sir Henry Rawlinson and his IV Corps in four of the five offensive actions in the 1915 campaign. Despite this apparent faith, Haig believed Rawlinson had profound deficiencies as a commander, in particular his lack of loyalty towards junior officers and his selection of unsuitable staff officers.⁵⁸ Of more importance were Rawlinson's deficiencies in terms of operational planning. At Neuve Chapelle, Haig was not impressed with Rawlinson's vague plans for the capture of the village and constant delegation of planning to subordinate officers and, in a barely disguised reference, threatened to dismiss any commander 'who did not do what was required' to capture the village.⁵⁹ Furthermore, Rawlinson disregarded Haig's orders to prepare an attack on the Aubers Ridge until four days before the opening of the battle. Later in the campaign, Haig was equally dismissive of Rawlinson's artillery ammunition expenditure estimates at Givenchy and his tactical awareness of his surroundings at Loos.⁶⁰ Haig's worries over Rawlinson's capabilities as a commander were not shared by Lieutenant-General Sir James Willcocks, the GOC Indian Corps, who described Rawlinson as being 'so straight and fearless', adding that 'working with him was a real

⁵⁸ NLS, Haig Papers, Acc.3155/99, Typescript Diary, 18 October 1914; CAC, Rawlinson Papers, RWLN 1/1, Diary, 4 December 1914.

⁵⁹ NLS, Haig Papers, Acc.3155/100, Typescript Diary, 23 February 1915.

⁶⁰ NLS, Haig Papers, Acc.3155/101, Typescript Diary, 6 June 1915; Acc.3155/102, Typescript Diary, 21 September 1915.

pleasure'.⁶¹ Despite Rawlinson's obvious failures of leadership, Haig made no move to sack him and even went as far as recommending him for promotion to the command of First Army in December 1915, asserting that he had 'many other valuable qualities for a commander on active service', in particular, 'his bright joviality' and 'brains and experience'.⁶² While Haig may have stuck with Rawlinson because of a lack of suitable replacements, an alternative explanation is that Haig realised that Rawlinson was, following the Davies affair, beholden to him and was less likely to question Haig's supreme authority in any future dispute with Sir John French. Certainly, following Neuve Chapelle, Rawlinson believed Haig to be his 'good friend and staunch ally'.⁶³ In reality, it was the other way round.

A different set of circumstances characterised the relationship between Haig and Willcocks. Shortly after the Indian Corps arrived in France, Haig noticed that there was 'an air of despondency' at their headquarters.⁶⁴ This mood continued throughout the campaign and was combined with Haig's perception that Willcocks disliked the troops under his command, was constantly nervous about being attacked and, most importantly, was reticent in producing operational planning documents. The latter proved the catalyst for Willcocks' removal from command. On 30 August, he submitted a plan of attack to First Army headquarters which Haig viewed as 'a most discouraging document'; Willcocks had fallen foul of Haig by demonstrating a lack of offensive spirit and was

⁶¹ Sir James Willcocks, *With the Indians in France* (London, 1920), 234.

⁶² NLS, Haig Papers, Acc.3155/99, Typescript Diary, 17 October 1914; Acc.3155/100, Typescript Diary, 16 March 1915; Acc.3155/103, Typescript Diary, 12 December 1915.

⁶³ CAC, Rawlinson Papers, RWLN 1/1, Diary, 17 March 1915.

⁶⁴ NLS, Haig Papers, Acc.3155/99, Typescript Diary, 29 November 1914.

replaced by Lieutenant-General Sir Charles Anderson, a man of ‘greater initiative and tactical resource’.⁶⁵ The same could not be said of two of Haig’s other corps commanders, Lieutenant-Generals Sir Richard Haking and Sir Hubert Gough who were characterised as ‘thrusters’; ‘bold, aggressive commanders’ who were ‘prone to launch hasty, ill-prepared attacks’ with little thought to the inevitable loss of life.⁶⁶ Haking had first impressed Haig in late 1914, when, in command of 3 Brigade, he ‘had all the major-generals of the Indian Corps doing his bidding’ and, upon his promotion to command the 1st Division, proved able to produce thoughtful, painstaking plans of attack.⁶⁷ For Brigadier-General Cecil Lowther, GOC 1 Brigade, Haking took ‘everything in the best spirit and [was] an excellent man to work for’.⁶⁸ Indeed, Lowther’s disappointment at leaving the 1st Division in August 1915 was tempered by the fact that Haking too was leaving.⁶⁹ Gough, more than any other war manager, typified the image of a thruster. For Haig, he was a ‘keen, active, energetic officer...who is able to command his corps himself...without the intervention of a staff officer’.⁷⁰ Over the course of the war Gough became Haig’s protégé, perhaps in part because of Haig’s ties to Gough’s brother but also because of their common perception on how the war should be fought. Certainly, officers who shared Haig’s mindset – Gough, Haking and Major-General Henry Horne – were promoted to senior positions within the First Army structure in 1915 and the wider BEF in 1916 following Haig’s promotion to commander-in-chief.

⁶⁵ NLS, Haig Papers, Acc.3155/102, Typescript Diary, 30 August 1915, 3 September 1915.

⁶⁶ Bond, *Britain’s Two Wars Against Germany*, 54; Sheffield, *Command and Morale*, 79.

⁶⁷ NLS, Haig Papers, Acc.3155/99, Typescript Diary, 21 December 1914; Acc.3155/101, Typescript Diary, 22 April 1915.

⁶⁸ IWM, Lowther Papers, Doc.7227, Diary, 5 February 1915.

⁶⁹ IWM, Lowther Papers, Doc.7227, Diary, 16 August 1915.

⁷⁰ NLS, Haig Papers, Acc.3155/102, Diary, 1 September 1915.

The choice to promote these war managers, in particular, was taken by Haig alone and can be seen as a means of reinforcing his dominance by filling the level of command immediately beneath his own with men with a similar world-view and who relied on him for their position. This, then, further reinforces the importance of Haig's role in terms of the First Army's organisational development.

The culture created by Haig at First Army headquarters was underpinned by the belief that the British Army should be characterised by its offensive spirit. This, however, had a knock-on effect on subordinate officers' ability to transmit new information up and across the army hierarchy. Following the XI Corps' failed attack at Loos on 26 September, Lieutenant-Colonel Cosmo Stewart, the chief of staff (GSO1) of the 24th Division, believed that his division was passed incorrect information from XI Corps headquarters, regarding the state of the German defences which his division confronted on the battlefield. Stewart was 'led to believe that it was a victory everywhere' and that 'the Germans had been driven from their entrenchments and open warfare was being resumed'.⁷¹ Furthermore, when the 21st and 24th Divisions were undergoing initial training in France when attached to XI Corps from 4-20 September, they only rehearsed follow-up attacks in open warfare rather than a trench-to-trench attack under heavy fire which they were actually required to undertake. Stewart concluded that there existed 'a cult of optimism' at XI Corps headquarters, which led to unverified rumours from the front being treated as fact only because they were positive regarding British battlefield

⁷¹ TNA, CAB45/121, Lieutenant-Colonel Cosmo Stewart to Major A. F. Becke, 8 August 1925.

successes.⁷² His assessment reveals much about the nature of leadership and the importance of organisational culture in the wider BEF in 1915. Officers were so afraid of appearing ‘downhearted’, ‘unnerved’ or ‘despondent’ that they tended to err on the side of over-optimism.⁷³ This existed alongside a tendency among some senior war managers – Haig, Gough and Haking in particular – to attribute blame for operational failure on the perceived lack of offensive spirit among their subordinate officers. The ‘blame culture’ that existed at First Army headquarters permeated down the force structure and created a buffer by which senior war managers were protected from criticism.

Regarding the brigade and divisional commanders who served in the First Army in 1915, Haig tended to make judgements on their suitability based on two main factors – their previous experience of battle, and the positivity of their outlook. In the first place, Haig was quick to comment on other war managers’ history and reputations. Thus, Brigadier-General Peter Strickland was noted as being ‘a hard and capable soldier with considerable foreign experience’; Brigadier-General William Walker ‘was in the Ghurkas and won the VC (in Somaliland)’; Brigadier-General Walter Ross was ‘a good hard determined officer...[who was] badly wounded in South Africa’; and Major-General Fasken ‘commanded at Bannu while I was chief of staff in India’.⁷⁴ While Haig was conscious of war managers’ reputations in terms of personal bravery, he was

⁷² TNA, CAB45/121, Lieutenant-Colonel Cosmo Stewart to Brigadier-General Sir James Edmonds, 19 January 1926.

⁷³ TNA, CAB45/121, Lieutenant-Colonel Cosmo Stewart to Brigadier-General Sir James Edmonds, 19 January 1926.

⁷⁴ NLS Haig Papers, Acc.3155/100, Typescript Diary, 1 March 1915; Acc.3155/101, Typescript Diary, 7 May 1915; Acc.3155/102, Typescript Diary, 26 July 1915.

equally as aware of their previous weaknesses in terms of leadership. When the 23rd Division joined III Corps in September 1915, Haig remembered that its commander, Major-General James Babington, had ‘twice failed in South Africa to press the enemy’, and he felt the need to mention specifically to Babington the need ‘to pursue the enemy remorselessly’.⁷⁵ Similarly, Haig recalled that Fasken ‘showed much lack of decision when some tribesmen invaded his district’ in India and that Major-General Holland erroneously ‘placed two field guns on Coles Kop’ during the Boer War.⁷⁶ In terms of the personal spirit of the war managers Haig focused on both positive and negative characteristics. Major-General Forestier-Walker, the then BGGs of the Second Army and future GOC 21st Division, had ‘not enough of the fighting spirit’; Brigadier-General Tuson, GOC 23 Brigade, was ‘too sleepy looking and inactive’; Major-General Bannatyne-Allason of the 51st Division was ‘long-faced and melancholy’; and Brigadier-General Turner of the Canadian Division was ‘a weak looking man’.⁷⁷ Conversely, Major-General Claude Jacob of the Indian Corps was ‘a first-rate officer with plenty of energy’; Brigadier General Lewis, GOC 56 Brigade had ‘plenty of energy and practical sense’; Brigadier-General Mackenzie Stewart, GOC 58 Brigade was ‘a capable, determined man’; and Brigadier-General Montague Wilkinson, GOC 44 Brigade ‘seems well up to his work’.⁷⁸ Haig’s opinion of his subordinate war managers had an effect on how long those units remained with the First Army. When Haig found the war

⁷⁵ NLS, Haig Papers, Acc.3155/102, Typescript Diary, 9 September 1915.

⁷⁶ NLS, Haig Papers, Acc.3155/102, Typescript Diary, 26 July 1915, 6 September 1915.

⁷⁷ NLS, Haig Papers, Acc.3155/100, Typescript Diary, 5 February 1915; Acc.3155/101, Typescript Diary, 1 April 1915, 10 June 1915; Acc.3155/102, Typescript Diary, 10 September 1915.

⁷⁸ NLS, Haig Papers, Acc.3155/102, Typescript Diary, 25 July 1915, 29 July 1915, 13 August 1915, 9 September 1915.

managers of the Canadian Division to be ‘very sketchy in their methods of command’ the division was soon transferred out of the First Army despite the men being ‘fine looking fellows’ and ‘quick, intelligent and hardy’.⁷⁹ Similarly, the 51st Division was transferred from the First Army when Haig came to the conclusion that Major-General Bannatyne-Allason ‘knew very little about the kind of soldiering which must be made to achieve success’.⁸⁰

This section has demonstrated that while the First Army war managers were a homogeneous group in terms of background, they varied widely in terms of their professional education and their approach to war. As a group, the war managers were dominated by Haig both in terms of operational planning, where he often worked separate from his senior staff officers, and through his patronage which provided rapid promotion or a swift return to Britain. The ‘cult of optimism’ which existed at First Army headquarters created a culture in which subordinate officers were so afraid of being punished for being considered downhearted and despondent that they sometimes took decisions against their better judgement rather than question authority. Haig ensured that officers who either shared his operational outlook or who were beholden to him occupied the highest positions within the First Army leadership framework. In terms of organisational development this placed an increased importance on Haig as the senior war manager. Torunn Laugen Haaland’s study into adaptation in the Norwegian Armed Forces in Afghanistan in the twenty-first century showed that, rather than being

⁷⁹ NLS, Haig Papers, Acc.3155/100, Typescript Diary, 16 March 1915; Acc.3155/101, Typescript Diary, 23 May 1915.

⁸⁰ NLS, Haig Papers, Acc.3155/101, Typescript Diary, 10 June 1915.

identified, lessons are ‘continuously negotiated’ by groups of war managers.⁸¹ In the First Army of 1915 this was not the case. The hierarchical structure of the First Army, the prevailing organisational culture and Haig’s forcefulness of personality meant that while lessons could be identified at multiple levels of command, they needed his approval before they could be converted into force-wide change. While the consideration of new knowledge took place at each level of command, Haig’s reliance on his own instincts and failure to implement a formal system for force-wide data capture placed the responsibility for organisational development firmly at his feet.

The Changing Composition of First Army’s War Managers

In terms of organisational development this thesis has asserted the importance of the role of war managers in the learning process. As the majority of new knowledge was created through the war managers self-identification of lessons or by accepting the lessons identified by those around them, this relatively small group of army officers can be said to have wielded significant influence in the overall organisational development of the First Army. This section examines the implications the unprecedented expansion of the British senior officer corps had for leadership in the First Army by analysing the group of war managers at three different points over the course of the 1915 campaign. It demonstrates how the group developed as the campaign progressed and determines what factors influenced these changes. To do this, three datasets have been created, each of which examines the war managers at a specific date: the first looks at the first day of the

⁸¹ Torunn Laugen Haaland, ‘The Limits to Learning in Military Operations: Bottom-up Adaptation in the Norwegian Army in Northern Afghanistan, 2007–2012’, *Journal of Strategic Studies* 39.7 (2016), 1000.

Battle of Neuve Chapelle (10 March 1915); the second looks at the first day of the Battle of Loos (25 September 1915); and the third examines the war managers of the First Army on the first day of the Battle of Fromelles (19 July 1916). The datasets were created using data gathered from, among others, *The Times* online archive, the Oxford Dictionary of National Biography online, the *London Gazette* online, the University of Birmingham's 'Lions led by Donkey's' Project, and Peter Hodgkinson's 'Infantry Battalion Commanders of the British Army in the First World War' Project.⁸² These three particular dates have been chosen as they represent the state of the First Army in its first planned offensive action, at the start of its largest battle, and at the end of the campaign when the First Army undertook its first major operation in 1916.

At the Battle of Neuve Chapelle there were twenty-seven war managers occupying command positions with a rank of brigadier-general or above; at Loos in September 1915, this number had risen to seventy-eight before falling to forty war managers at Fromelles in July 1916. Table 4.1 demonstrates how these war managers were split by rank at each battle. In general, the First Army comprised one Army Commander – Haig at Neuve Chapelle and Loos and Monro at Fromelles – with a number of corps under his command. Each corps was initially comprised of two divisions before increasing to three in mid-1915 as Kitchener's new armies began to arrive on the western front, although in some instances a fourth division was attached for training purposes. Each

⁸² See *Oxford Dictionary of National Biography* online edition www.oxforddnb.com; *The London Gazette* online www.thegazette.com; *The Times* digital archive www.find.galegroup.com; John Bourne, 'Lions led by Donkeys', University of Birmingham online www.birmingham.ac.uk; Peter Hodgkinson, 'Infantry Battalion Commanding Officers of the British Army in the First World War' online www.ww1infantrycos.co.uk (all accessed 1 December 2016-15 January 2017).

division was composed of three infantry brigades and a variety of support services. While a number of officers of general rank served on the staff and in the specialist services such as the Royal Artillery and Royal Engineers, this study focuses on the changing nature of command with particular respect to the infantry brigades and higher echelons of command.

Table 4.1: War Managers according to Rank, March 1915–July 1916

RANK	NEUVE CHAPELLE	LOOS	FROMELLES
Army Commander	1	1	1
Corps Commanders	2	5	3
Division Commanders	6	18	9
Brigade Commanders	18	54	27

Throughout the 1915 campaign Haig displayed an interest in promoting ‘the best and youngest men’ to the highest positions of command in the BEF.⁸³ Haig first mentioned the need to promote younger officers in November 1914 during a visit to the 1st Division headquarters when he recommended seeking out ‘capable young fellows’ from the ranks to be commissioned as company officers to replace men who had been killed in the First Battle of Ypres.⁸⁴ Haig believed that the nature of fighting on the western front called for officers with the youthfulness and physical fitness to withstand the rigours of trench warfare: for example, on meeting Major-General Baldock, GOC 48th Division in April 1915, Haig remarked that he was ‘a nice old man but looks very old for this modern

⁸³ NLS, Haig Papers, Acc.3155/102, Typescript Diary, 26 July 1915.

⁸⁴ NLS, Haig Papers, Acc.3155/99, Typescript Diary, 29 November 1914.

war'.⁸⁵ To change this, Haig approached the Prime Minister, Asquith, in July and asked about the possibility of removing older officers from high command and replacing them with younger, more dynamic commanders. Together, Haig and Asquith examined the hierarchy of officers in the *Army List* and took note of divisional commanders who were best suited for promotion to command corps and, in time, armies on the western front.⁸⁶

Table 4.2: Average Age of First Army War Managers, March 1915–July 1916

RANK	NEUVE CHAPELLE	LOOS	FROMELLES
Army Commander	53	53	55
Corps Commanders	53.7	52	50.3
Division Commanders	53.7	53.8	53.7
Brigade Commanders	50.3	49.2	46.1

Table 4.2 presents the average age of the First Army war managers over the course of the 1915 campaign and can be used to demonstrate the success of Haig's endeavours to find younger commanders. At the level of corps command, the average age of the war managers dropped by three and a half years between March 1915 and July 1916. While at Neuve Chapelle, Rawlinson was aged fifty and Monro fifty-four, Sir James Willcocks, GOC Indian Corps, was fifty-seven years old. Furthermore, the two divisional commanders in the Indian Corps, Major-Generals Keary and Anderson were, on

⁸⁵ NLS, Haig Papers, Acc.3155/101, Typescript Diary, 23 April 1915.

⁸⁶ NLS, Haig Papers, Acc.3155/101, Typescript Diary, 9 July 1915.

average, five years older than the other divisional commanders. The decrease in the war managers' average age between Neuve Chapelle and Fromelles can be attributed in part to the removal of the Indian Corps from the First Army. However, the appointment of forty-five year old Lieutenant-General Sir Hubert Gough to command I Corps in July 1915 went a long way to reducing the average age. Gough began the war as the GOC 3 Cavalry Brigade before being promoted to command the 7th Division in April 1915 and was one of the officers Haig earmarked for accelerated promotion in his conversation with Asquith. He served as the GOC I Corps until 1916 when he was promoted to command the British Reserve Army. Across the campaign the average age of the divisional commanders remained the same at almost fifty-four years old. In terms of spread, the youngest divisional commander was Major-General George Thesiger, GOC 9th Division, who was forty-six years old and the oldest was Major-General Charles Fasken, GOC 19th Division, who was sixty. Haig was concerned that the arrival of the New Army divisions 'with rather elderly commanders' would have a detrimental effect on the efficiency of the First Army.⁸⁷ As a result, those war managers were often removed from their command shortly after their arrival in France, providing there was an operational reason for doing so. Thus, following perceived weaknesses in leadership, Major-Generals Sir John Ramsay (59) and Charles Fasken (60) were relieved of command and were followed later in 1916 by Major-Generals Edward Montagu Stuart-Wortley (59) and Charles Barter (58). Furthermore, the promotion of the youthful Thesiger to command the 9th Division was taken because the original divisional

⁸⁷ NLS, Haig Papers, Acc.3155/100, Typescript Diary, 4 January 1915.

commander, Major-General Herman Landon (56), was deemed unfit and was confined to bed during the planning for the Battle of Loos.⁸⁸

The infantry brigade commanders represent the largest group of officers at each of the three battles. At Neuve Chapelle, their average age was 50.3 years and by Fromelles in July 1916 the average age had dropped to 46.1 years old. Over the course of the campaign the age of brigade commanders fluctuated widely: Brigadier-General John Trefusis was thirty-seven years old when he assumed command of 20 Brigade in August 1915 whereas Brigadier-General Francis Wallerstein was fifty-nine years old when he arrived in France in July as the GOC 45 Brigade. As at the divisional level, brigade commanders of New Army formations were often replaced shortly after their arrival in France on account of their age. Brigadier-General Edward Grogan, GOC 26 Infantry Brigade, was removed from command in May 1915 aged sixty-four and was replaced by forty-five year old Brigadier-General Archibald Ritchie. Rather than being the order of Haig, Grogan's removal was 'the result of an order issued by GHQ fixing an age limit for brigadiers'.⁸⁹ By 1916 the removal of officers on account of their age had intensified; when Major-General David Campbell assumed command of the 21st Division in May 1916, he sent Brigadier-General Gerald Gloster home 'as soon as he discovered his age, apparently without further enquiry into his military ability'.⁹⁰ He was fifty-two. Haig's insistence on the removal of older commanders is, then, an

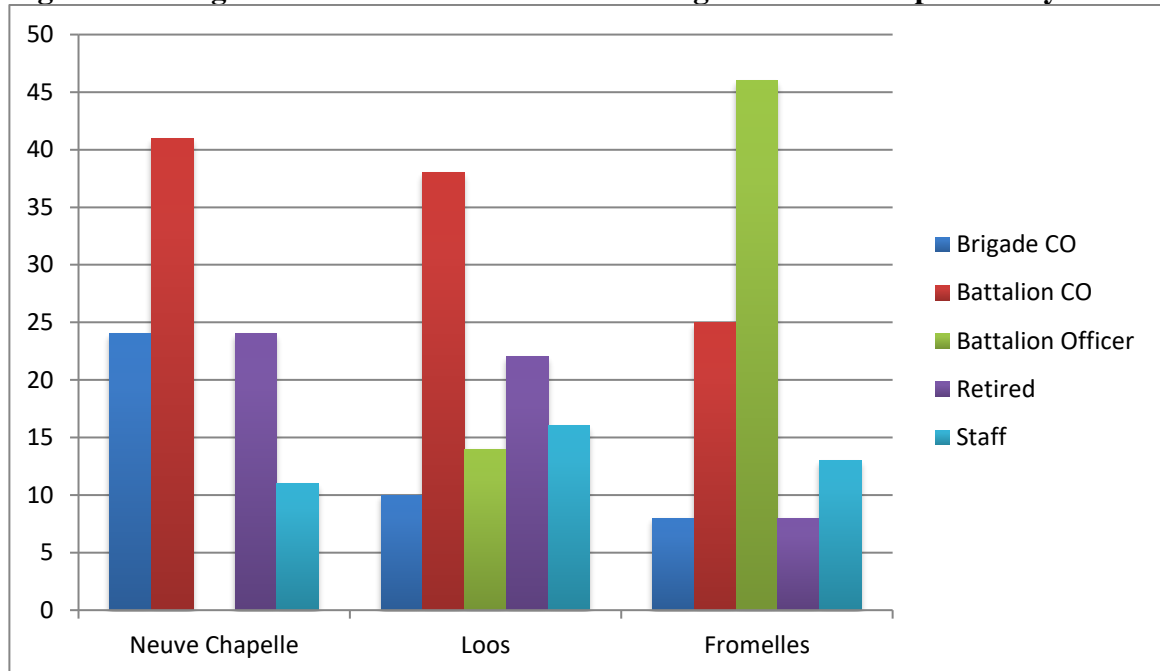
⁸⁸ NLS, Haig Papers, Acc.3155/102, Typescript Diary, 29-30 August 1915.

⁸⁹ Ewing, *History of the 9th (Scottish) Division*, 15.

⁹⁰ John Bourne, 'Gerald Meade Gloster', in the Lions led by Donkeys' Project, www.birmingham.ac.uk (accessed 14 January 2017).

extension of a wider institutional policy rather than being his own personal preference. The drop in age of war managers continued throughout the conflict and the average age of brigadier-generals appointed in the period January–April 1917 had decreased to 41.1 years old.⁹¹

Figure 4.1: Brigade Commanders' Positions in August 1914 - Comparison by Battle



While the changes in age patterns suggest Haig was largely successful in promoting youthful commanders, it does not address whether that had a knock-on effect on the war managers' operational effectiveness or ability and willingness to critically examine their experiences. One knock-on effect of promoting younger soldiers was that officers with more mission-specific experience were given more operational responsibility. Figure

⁹¹ Trevor Harvey, "An Army of Brigadiers": British Brigade Commanders at the Battle of Arras, 1917', unpublished PhD thesis, University of Birmingham (2015), 49.

4.3 demonstrates how the group changed over the course of the campaign by examining the role of the brigade commanders at each battle, on the declaration of war. At the Battle of Neuve Chapelle, 24% of all brigade commanders began the war in that role, although only Brigadier-General Raleigh Egerton, GOC Ferozepore Brigade, was commanding the same brigade as in August 1914; the other three pre-war brigade commanders had all been in command of brigades of the Territorial Force. By the Battle of Loos in September 1915 the number of pre-war brigade commanders had dropped to 10% and by the Battle of Fromelles the following year, it dropped to 8%. There are two main reasons for this. First, commanders who had performed well in the 1915 campaign, such as Brigadier-Generals Sydney Lawford and the Earl of Cavan, were promoted to command divisions of the New Army. Second, commanders, such as Brigadier-Generals Claude Westmacott and Arlington Chichester, were invalided back to Britain; it is important to note here that while some officers who were sent home sick were, in fact, ill, it was often used as a polite term for being sacked.⁹² The high attrition rates of the 1914 campaign necessitated the promotion of able battalion commanders. Indeed, at Neuve Chapelle, 41% of the brigade commanders began the war commanding infantry battalions and had experience of leading them in the fighting of 1914. At Loos, the number of former battalion commanders promoted to brigade command still represented the largest group, however, at Fromelles in July 1916, only 25% of the brigade commanders had begun the war as battalion commanders and had been overtaken as the largest group by officers who began the war as regimental officers and company commanders.

⁹² Hodgkinson, *British Infantry Battalion Commanders*, 57.

Analysis of this group gives the clearest indication of how the First Army war managers changed from 1915 into 1916. Whereas at Neuve Chapelle no brigadier-generals began the war serving as a regimental officer, by Fromelles some 45% of all brigade commanders had seen service as company commanders on the western front. An example of this speed of promotion is Brigadier-General John Trefusis who began the war as a captain in the 1st Irish Guards and, by August 1915, was promoted to command 20 Brigade. Similarly, Brigadier-General Torquhil Matheson, GOC 46 Brigade, began the war as a major in the 3rd Coldstream Guards and was promoted to major-general commanding the 20th Division in early 1917. These officers took the place of men who had been appointed to brigade command from the retired list. The rapid expansion of the army in 1914 necessitated the recall of officers who had retired from active service prior to the declaration of war. Four of the infantry brigades present at Neuve Chapelle were commanded by officers who had retired from the service prior to August 1914. One of these was the Earl of Cavan who retired in 1912, following four years in command of the 1st Grenadier Guards. On the declaration of war, Cavan ‘sent a telegram to the War Office [notifying them] that [his] services were at their disposal’ and the following week he was appointed to command a brigade in the 47th Division before being sent to France to command 4 Brigade.⁹³ Similarly, Montagu Grant Wilkinson, who had retired as the CO of the 1st King’s Own Scottish Borderers in early

⁹³ Churchill Archive Centre, Papers of Field Marshal Frederic Rudolph Lambart, 10th Earl of Cavan [afterwards, CAC, Cavan Papers], CAVN 1, unpublished memoir, 1.

1914, was recalled on the declaration of war and was appointed GOC 44 Brigade.⁹⁴ For Haig, men like Wilkinson, who had recently given up command of their battalions, were the perfect candidates for promotion as brigade commanders in the New Army.⁹⁵ However, the extent of the expansion of the British Army in 1914–15 meant that the War Office had to look further afield to fill the command vacancies; Brigadier-General Ernest Wilkinson was appointed to command 62 Brigade despite having retired as a major in the Egyptian Army in 1907. The number of officers who were on the retired list in 1914 and who were serving with the BEF decreased as the war progressed. At Neuve Chapelle 24% of the brigadier-generals were officers who had retired before the war broke out; at Fromelles, it had dropped to 8%.

The small pool of officers from which the war managers could be drawn presented a particular challenge for effective leadership in the First Army. The fighting of the 1914 campaign exposed the leadership weaknesses of some of the original BEF war managers. To counter perceived poor performance, officers such as General Ivor Maxse, the original GOC of 1 Brigade, ‘who had not done well’, were removed from command and posted back to Britain to command a division of the New Army.⁹⁶ In the short term, this removed a supposedly inefficient commander from the immediate theatre of war, however there seems to have been little realisation that the officers who were sent home would eventually work their way back to the front, often in command of larger formations with more responsibility. For example, Brigadier-General Richard

⁹⁴ IWM, Wilkinson Papers, Doc.8035, unpublished memoir, 3-9.

⁹⁵ NLS, Haig Papers, Acc.3155/102, Typescript Diary, 13 August 1915.

⁹⁶ NLS, Haig Papers, Acc.3155/99, Typescript Diary, 14 September 1914.

Davies, GOC 6 Brigade, was sent home in September 1914 as he was ‘very jumpy and nervous and upsets his regimental COs’.⁹⁷ Davies was promoted to command the 20th Division of the New Army and led them back to France, and the First Army, in July 1915. While he ‘now seem[ed] fit and well’, Davies’ health failed him in early 1916 and, after a period as commanding officer of Cannock Chase Reserve Centre in England, he committed suicide in 1918. Similarly, Major-General Colin Mackenzie lasted three weeks in command of the 3rd Division before being sacked ‘owing to the mess he made of the attack’ at La Bassee in October 1914.⁹⁸ After a period commanding the 15th Division in Britain, and then assuming the role of Director of Staff Duties at the War Office, Mackenzie was appointed to command the 61st Division of the New Army and led them to France in June 1916. The lack of competent commanders was one of the chief command problems for the BEF in 1915–16 and the demand for general officers meant that even those with unenviable histories and reputations were recycled and sent back to the front.

The First Army that attacked at the Battle of Fromelles on 19 July 1916 was marked different in composition from that of the previous year. Experienced formations such as the 1st, 7th and 9th Divisions had been sent to other armies and had been replaced by the 39th, 40th, 61st and 63rd Divisions of the New Army. As the BEF’s main sphere of operations shifted south to the Somme in 1916, the role of the First Army – which remained in Artois – changed from planning the most significant offensive operations to

⁹⁷ NLS, Haig Papers, Acc.3155/99, Typescript Diary, 18 September 1914.

⁹⁸ Billy Congreve, *Armageddon Road: A VC’s Diary, 1914–1916* (Barnsley, 2014), 70.

one of trench raiding and training divisions newly arrived from Britain. Indeed, over the course of the 1916 campaign, fourteen different infantry divisions served in XI Corps alone with eight of those remaining for less than three months before being sent to fight in the Somme battles.⁹⁹ Of the eight divisional commanders who were part of the First Army structure in July 1916, only three – Major Generals Barter, McCracken and Hudson – had any experience of planning and conducting large-scale planned operations. Furthermore, of the twenty-seven brigadiers, thirteen had less than three months' experience commanding their formations. However, despite this inexperience, the senior war managers remained relatively constant and General Sir Charles Monro and Lieutenant-Generals Sir Richard Haking and Sir Hubert Gough had gained a wealth of experience in planning offensive operations in the 1915 campaign. It was, then, at the level of brigade command that the real changes in war management occurred in the First Army in the campaigns of 1915 and 1916. The promotion or dismissal of pre-war brigade commanders and those who had been recalled from the retired list led to a command gap which was filled by promoting the best men from among the battalion commanders and junior officers. This resulted in the age of brigade commanders falling by four years on average, however the senior war management group remained comprised of broadly the same individuals over the course of the two campaigns. The hierarchical structure of the British Army, which put the emphasis on decision-making onto a small group of senior war managers, meant that while the changes in personnel affected how units and formations approached the business of war at the tactical level,

⁹⁹ Senior, *Haking: A Dutiful Soldier*, 101.

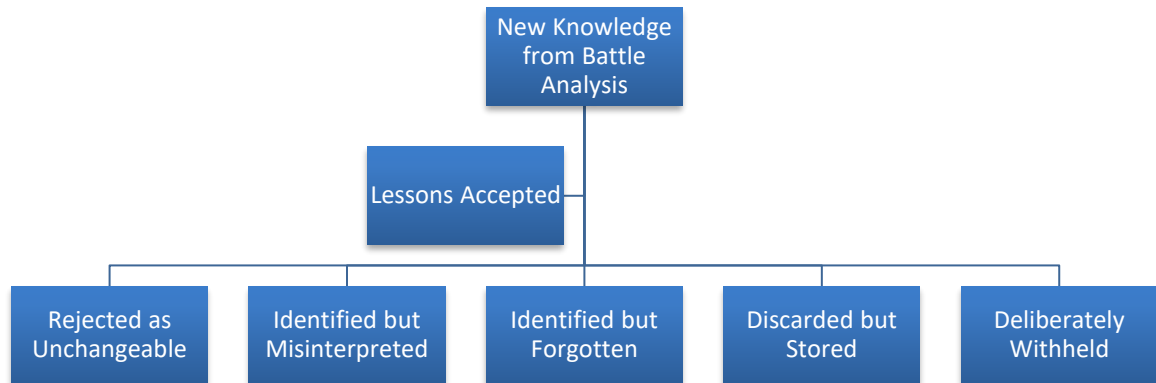
the retention of the same war managers in the higher echelons of command meant that rapid, force-wide change was not forthcoming at the operational level in 1915.

Conclusion

The First Army war managers made clear mistakes in rejecting, forgetting and dismissing lessons from the 1915 campaign. While many of these mistakes were an expected product of inexperience in trench warfare, others could have been eliminated by the application of sustained logic in battle planning, particularly at the highest levels of the First Army structure. Despite these failures, the lessons of the 1915 campaign, such as the reintroduction of the hurricane bombardment as part of an all-arms battle plan, remained available to the war managers and could be recalled, as the planning for the Battle of Cambrai demonstrates. That the war managers did not continuously evaluate every possible option in battle planning suggests that many commanders found it difficult to objectively evaluate the information presented to them. While these forms of knowledge loss are relatively understandable, the failure of some senior war managers to pass on important information to the relevant commanders exposed an underlying problem with the British Army's organisational culture. Rawlinson and other war managers were aware of alternative methodologies which might have been more successful in breaking the deadlock of trench warfare but, by not passing these thoughts on to Haig, they ensured that they could not be considered at the highest level of war management.

The reason for this reticence was the prevailing culture of the First Army. Haig, as the senior war manager, created a culture in which his word was absolute, often acting without consulting his staff and surrounding himself with officers who either shared his operational worldview or who were, in some way, beholden to him for their position. In the aftermath of the Davies Affair, Rawlinson owed his survival as IV Corps commander to Haig's patronage, and this state of affairs meant that Rawlinson was reluctant to rock the boat by displaying an alternative viewpoint. Similarly, Lieutenant-General Hubert Gough owed his rapid rise from cavalry brigadier to commander of the Reserve Army in a little over twelve months to Haig's support. Others, such as Lieutenant-General Richard Haking and Major-General Henry Horne also benefitted from Haig's patronage, rising to high command in the First Army structure and, following Haig's promotion to commander-in-chief, further up the BEF hierarchy. Haig displayed a strong preference for promoting officers who shared his vision of the decisive breakthrough battle and demonstrated offensive spirit in the attack. He wanted subordinate officers who would display personal bravery and physical fitness, would encourage the morale of their troops and would not question his authority. Ultimately, Haig created a culture where all lessons which had been identified and accepted at lower levels needed to pass his final approval before they were disseminated and institutionalised. In terms of learning and adaptation, this asserts the importance of Haig as the senior war manager being the primary driver of organisational development.

Figure 4.2: Consideration of Knowledge in the Organisational Development Model



The First Army's 1915 campaign saw a high turnover of war managers as men were killed, wounded, promoted, transferred and sacked. This served rapid personnel change had a number of implications. First, Haig was able to create promotion pathways for his 'favourites', men like Lieutenant-General Sir Hubert Gough, whose career was linked to Haig's until his final dismissal in 1918. By doing this, Haig ensured that officers who shared his mindset in terms of seeking the decisive breakthrough battle were promoted to the highest points in his army. These men were complemented by others, such as Rawlinson, who were beholden to Haig for remaining in their positions. At positions lower down the army hierarchy, particularly at the level of brigade and battalion command, Haig's desire to promote 'youthful' commanders who could withstand the rigours of war served to promote more effective commanders with more recent, relevant experience to positions with more influence and responsibility.

In short, Haig exercised supreme control over learning and force change and, even if subordinate officers were inclined to consider their experiences and suggest lessons to be learned, these lessons had to be approved by Haig in order to be disseminated across the First Army. This reasserts Haig's position as the dominant war manager with the ultimate responsibility for considering and accepting or rejecting new knowledge. This consideration of knowledge was of crucial importance in terms of the First Army's organisational development. This highlights that the identification of new knowledge based on individual and collective experience, whether originating from the top-down, bottom-up or from outside the institutional structure was important, it was only one stage in the wider organisational learning process. In short, identifying a lesson did not mean that it was going to be learned in an institutional sense. While knowledge that was rejected could be, in some cases, recalled from the organisational memory, the information that was considered and accepted then had to be disseminated across the institutional structure in order to have significant impact and affect force-wide change.

Chapter Five

The Dissemination and Institutionalisation of Lessons

Books, circulars, schools, lectures all abound in profusion. But unless they are applied with the knowledge of men and in a practical manner, they do not produce trained formations.

Lieutenant-General Sir Ivor Maxse¹

In May 1916, Major-General Launcelot Kiggell, Haig's Chief of Staff at British General Headquarters, issued a circular pamphlet (*SS.109*) to all units and formations of the BEF which set out the approved training of divisions for offensive action, based on lessons identified in the 1915 campaign.² The pamphlet asserted that the 'chief stumbling blocks' of past attacks, including failures in communication and mutual support in the attack, the premature use of reserves and difficulties in reorganizing and consolidating ground, could be overcome through better divisional training. This, Kiggell thought, was best achieved by divisions creating their own detailed programmes of training in advancing from trenches against a hostile defensive system and then in exploiting successes once those systems had been broken through. While general in nature, the points made in *SS.109* were an attempt to impose a uniformity of method on to the formations of the BEF and it formed the basis for British tactical doctrine at the start of the Somme campaign.³ In December 1916, *SS.109* was revised to incorporate the lessons of the Somme and was re-circulated as *SS.135* – Instructions for the Training of

¹ IWM, Private Papers of Lieutenant-General Sir Ivor Maxse, Doc.3255 [afterwards, IWM, Maxse Papers], 'Undated note to a member of the Court of Inquiry', quoted in French, 'The 51st (Highland) Division in the Great War', 49.

² IWM, GHQ, *SS.109 – Training of Divisions for Offensive Actions*, May 1916.

³ Prior & Wilson, *The Somme*, 58.

Divisions in Offensive Action.⁴ These pamphlets were described by Jim Beach as being ‘keystone’ manuals which formed ‘the highest level of combat doctrine published by the BEF’.⁵ The dissemination of official publications was a means by which lessons that had been identified by experience and had been accepted by war managers were institutionalised in the operational methodology of the British Army.

The preceding chapter asserted that, following the creation and collation of new knowledge, the war managers were left with a choice to accept or reject that information. It asserted the importance of the war managers in managing newly-created knowledge and demonstrated the different ways that knowledge could be rejected. This chapter examines what happened when newly-identified lessons were accepted by the war managers. In doing so, it addresses four main questions. First, how much importance did the First Army war managers attach to the dissemination of information as a means of increasing military effectiveness? Second, how did the mechanism for the delivery of training and education change over the course of the campaign? Third, how was new knowledge transmitted from the front to units training at home? And finally, to what extent did the First Army war managers incorporate lessons they had identified and accepted into their formal training provision and codify them as doctrine? The chapter is split into three sections. The first section examines the use of publications in disseminating information both in terms of the continuing importance of pre-war training manuals and the creation of new publications based on the consideration of

⁴ IWM, GHQ, SS.135 – *Instructions for the Training of Divisions for Offensive Actions*, December 1916

⁵ Beach, ‘Issued by the General Staff’, 470.

experiences in the 1915 campaign. The second section studies the First Army's provision of training and education on both a formal and informal basis and demonstrates that as the campaign progressed the war managers increasingly relied on formal methods of knowledge dissemination in training. The third section focuses on the informal processes of knowledge dissemination including secondments, mentoring and 'on-the-job training'. The chapter concludes by demonstrating how the dissemination and institutionalization of lessons learned fits into the wider Organisational Development Model.

Recent research into conflict in Afghanistan and Iraq has demonstrated that the institutionalisation of lessons is a key indicator of an army's ability to learn from its experiences.⁶ In order to achieve successful battlefield adaptation new information does not only need to be created, captured and accepted, it must be disseminated across the organization in order to become the new normal. To do this effectively, an institution requires a formal system for translating the experiences of units or individuals into information which is available and easily understandable to other parts of the organization.⁷ For the majority of the Great War, and all of the 1915 campaign, the BEF did not implement any force-wide framework for the dissemination of new knowledge. Yet the exchange of ideas still took place. Analysis of the secondary literature indicates that there were three main ways in which this happened. Richard Downie's institutional learning cycle suggests that after new knowledge is acquired lessons are institutionalised

⁶ Catignani, 'Coping with Knowledge', 32; Serena, *Revolution in Military Adaptation*.

⁷ Robert Foley, Stuart Griffin and Helen McCartney, "Transformation in Contact": Learning the Lessons of Modern War', *International Affairs* 87.2 (March 2011), 253-70.

in formal military doctrine through the creation and dissemination of official publications.⁸ Victoria Nolan proposed a different approach and suggested that lessons are transmitted and embedded through an institution's practical and academic teaching.⁹ This corresponds with Catignani's idea that lessons learned are institutionalised through the delivery of learning programmes in training and education.¹⁰ Aimee Fox-Godden identified a further means through which new knowledge was disseminated across the BEF, arguing that the British Army's organizational culture, personalised nature and mistrust of formal doctrine meant that it encouraged informal dissemination of lessons through such means as mentoring, secondments and exploiting existing social networks.¹¹

In terms of organisational learning, Fox-Godden split the means of knowledge dissemination sharing into formal 'people-to-documents' methods and informal 'people-to-people' methods.¹² The former category sees new knowledge collated by war managers, then extracted and codified for future use. This method includes both the creation and dissemination of doctrinal publications and the establishment of formal training schools, which then use the publications as the basis of their teaching.¹³ The informal 'people-to-people' means of information sharing represents more of an *ad hoc* approach to organisational learning in which information is transferred between

⁸ Richard Downie, *Learning from Conflict: The US Military in Vietnam, El Salvador and the Drug War* (Westport, CT, 1998), 38.

⁹ Nolan, *Military Leadership and Counterinsurgency*, 97.

¹⁰ Catignani, 'Coping with Knowledge', 32.

¹¹ Fox-Godden, 'Beyond the Western Front', 190-209.

¹² Fox-Godden, 'Beyond the Western Front', 194.

¹³ Fox-Godden, 'Beyond the Western Front', 194, 199.

individuals on a more limited basis. Fox-Godden's classification is useful in understanding the dissemination of information across the various theatres in the later period of the war, however for the 1915 campaign the methods of information dissemination do not fit neatly into these categories. There are two main reasons for this. First, while the dissemination of official publications was an important means of knowledge-transfer, by focusing on the creation and spread of doctrinal publications in the Central Distribution Service (CDS) and Stationery Service (SS) series, Fox-Godden's classification neglects the informal sharing of lessons learned reports between formations. Second, while Fox-Godden is correct to highlight the importance of official training schools in the knowledge dissemination process, these schools were only established on a large scale towards the end of the 1915 campaign; prior to that, the provision of training also occurred on an informal basis. This chapter evaluates these three methods of knowledge dissemination and assesses their relative importance in the organisational development of the First Army in the 1915 campaign.

Written Dissemination of Lessons

This section examines the importance of the creation and use of official publications and the circulation of 'best-practice guidelines' as means of disseminating new knowledge across the British Army in the 1915 campaign. Despite claims by Paul Harris that the British Army was anti-intellectual in approach, the British War Office produced a large number of official publications which were influential in shaping the training and operational thought of the regular British Army and the Territorial Force in the pre-war period and then the new armies in 1914 and 1915. These publications drew upon

lessons identified from practical experience in the Boer War and the theoretical experience from observation of the course of the Russo-Japanese War. One of the main outcomes of learning from those conflicts was the creation, in 1906, of a force-wide formalised general staff with responsibility for army strategy, the provision of officer education, preparations for war and the gathering of intelligence.¹⁴ Part of the preparations for war was the codification of lessons and experiences in a series of formal manuals which were disseminated throughout the British Army, directed operational methodology and formed the basis of training provision.¹⁵

The manuals created by the General Staff at the War Office provided the foundations for the training of the regular formations of the British Army in the pre-war period and represented the extent of the codification of identified lessons at the point the BEF embarked for France in August 1914. In addition, the manuals were also used as the basis for the six months mobilization training given to units of the Territorial Force from August 1914 until their departure for the front. Mitchinson, in his recent study of the Territorial Force, highlighted the importance of both the FSR and a specially produced publication named the Infantry Training Manual in shaping the development of the Territorial Force, although he admits that the extent to which manuals were studied

¹⁴ Paul Harris, *The Men who Planned the War: A Study of the Staff of the British Army on the Western Front, 1914–1918* (Farnham, 2016), 10.

¹⁵ Timothy Bowman and Mark Connelly, *The Edwardian Army: Recruiting, Training and Deploying the British army, 1902–1914* (Oxford, 2012), 66-7. See also, 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* (London, 2002), 75-94.

within formations are ‘open to question and difficult to determine’.¹⁶ Information regarding the training of the Territorial Force in the pre-war period is largely confined to divisional and regimental histories as the official war diaries which charted the daily activities of units and formations only begin on the date of embarkation for a war theatre and not on the date of mobilization. However, monthly reports relating to the training of the 51st (Highland) Division – which formed part of the First Army from May to July 1915 and took part in the attack at Givenchy in June – have survived and their contents demonstrate the role of official publications in mobilization training.¹⁷ The first of the 51st Division memoranda from October 1914 asserts that, based on experiences gained since mobilization in August, ‘schemes of training for all arms...should have been laid down by the War Office during peace’.¹⁸ However, subsequent memoranda record that training was being carried out ‘on the lines laid out in the official syllabus’.¹⁹ This demonstrates that at the point of mobilization, and for some time after, the divisions of the Territorial Force received little written guidance on the manner in which they should be training their units and the matter was largely left to the initiative of individual division, brigade and battalion commanders.

¹⁶ K. W. Mitchinson, *The Territorial Force at War, 1914–1916* (London, 2014), 66.

¹⁷ These reports can be found in the 51st Division General Staff War Diary (TNA, WO95/2844). They have been misfiled in January 1916. Confusingly, the reports, written by Major-General Bannatine-Allason, the GOC of 51st Division, are addressed to ‘First Army’. It is unclear to which First Army this relates. As the subject of this study was formed in late-December 1914 and the first of the 51st Division reports is dated October 1914, it is clearly not that First Army. Another possibility is the first of Kitchener’s New Army formations, normally known as K1 but sometimes as the First New Army. As the training of the Territorial Force was not directly connected to the training of the New Armies, this is also unlikely.

¹⁸ TNA, WO94/2844, 51st Division General Staff War Diary, Major-General Bannatine-Allason to First Army, October 1914.

¹⁹ TNA, WO94/2844, 51st Division General Staff War Diary, Major-General Bannatine-Allason to First Army, November 1914 and March 1915.

The syllabus of training mentioned in Bannatine-Allason's report was probably the same as that issued to the divisions of the New Army in late-August 1914. Those instructions envisaged a six-month training period in which the first ten weeks consisted of basic recruit training. During this phase, the men of the Territorial Force and New Army received preliminary instruction in musketry and began basic squad drill, including saluting, physical training and route marching. They then graduated on to practice bayonet fighting, entrenching and outpost duty. After ten weeks the troops began platoon training with five weeks' company training beginning two weeks later. The final stage of the syllabus was set aside for battalion and brigade training, including three-day route marches, field firing with artillery support and the training of specialists including machine-gunners, grenadiers and signallers.²⁰ In the 9th Division of the New Army – which joined the First Army in June 1915 and was in the first wave at the Battle of Loos in September – the training was conducted 'on lines identical with those of the old army' using their pre-war training syllabus.²¹ Captain John McEwen of the 5th Cameron Highlanders noted that during the training of the 9th Division in England, the manuals Infantry Training and Musketry Regulations were 'open books' for young officers, and Captain Joseph Goss, the quartermaster of the 7th King's Own Scottish Borderers in the 15th Division, recounted that despite numerous instances of confusion 'officers and men rapidly got into the way of doing things as laid down in the various

²⁰ Simkins, *Kitchener's Army*, 296-7.

²¹ Ewing, *History of the 9th (Scottish) Division*, 9. The use of the War Office syllabus is also mentioned as having taken place in the 9th Scottish Rifles – see John Baynes and Hugh Maclean, *A Tale of Two Captains* (Edinburgh, 1990), 17.

Manuals of Instruction'.²² Indeed, even off duty, 'it was a common thing to find parties of young officers or NCOs studying their drill books and teaching each other the rudiments of their new profession'.²³ However, it should be noted that the dissemination of these publications was uneven and units of the 15th Division suffered from a 'scarcity of official training manuals' at the beginning of their training period.²⁴

Sitting alongside these formal publications were a variety of informal books and pamphlets which sought to provide abbreviated reference guides for new officers and NCOs. Written in late-August 1914, and drawing on his experience as an officer in the Boer War, Lieutenant-General Sir Robert Baden-Powell's *Quick Training for War* became an instant best-seller, running to five editions in September 1914 alone and selling 65,000 copies in five weeks.²⁵ Similarly, Captain A. P. Birchall, formerly an officer on the Instructional Staff in Western Canada, wrote *Rapid Training of a Company for War* in November 1914.²⁶ Both Birchall and Baden-Powell were keen to declare that their work was not intended as a substitute for the information contained in the official publications, rather they existed alongside them as a handy point of reference. While formal and informal manuals of instruction were used extensively in the training of Territorial Force and New Army formations in England in 1914 and 1915, they largely focused on drill and discipline which had been perceived as being the

²² McEwen, *Fifth Camerons*, 53; Joseph Goss, *A Border Battalion: The History of the 7/8th King's Own Scottish Borderers* (Edinburgh, 1920), 4.

²³ Buchan & Stewart, *Fifteenth Division*, 5.

²⁴ Buchan & Stewart, *Fifteenth Division*, 9.

²⁵ Lieutenant-General Sir Robert Baden-Powell, *Quick Training for War* (London, 2011), edited by Martin Robson.

²⁶ Captain A.P. Birchall, *Rapid Training of a Company for War* (London, 1914).

particular strength of the pre-war regular British Army, rather than imparting any knowledge which related directly to the conditions of war found in France from late-1914.

This emphasis is unsurprising given the volunteer nature of the new armies and the inexperience of the Territorial Force. Analysis of the training period of the 9th and 15th Divisions demonstrate that there was no centralised, force-wide attempt to disseminate formal written lessons from the front and incorporate them into the training manuals used by the new armies and the Territorial Force at home. When publications-based information sharing from the front did occur, it tended to be for a reason other than increasing the effectiveness of the units in question. The commanding officer of the 10th Scottish Rifles convened a special parade to read accounts of the 2nd Scottish Rifles' actions during the Battle of Neuve Chapelle, however rather than using the experiences as a means of examining the tactical realities of conflict on the western front, Lieutenant-Colonel Ussher used the reports to foster regimental spirit by using the deeds of other battalions of the regiment as a benchmark for the recruits to attain.²⁷ In the 5th Seaforth Highlanders of the 51st Division, Sergeant John Bruce Cairnie noted that the battalion NCOs were given a lecture, which consisted of 'reading aloud extracts of "Notes from the Front"' because 'it rained all afternoon' and the men could not train outside.²⁸ This three-part publication was written by an unidentified officer in France

²⁷ Douglas Foulis, *The Tenth Battalion, The Cameronians (Scottish Rifles): A Record and a Memorial, 1914–1918* (Edinburgh, 1923), 10.

²⁸ John Bruce Cairnie, war diary, 21 January 1915, www.edinburghswar.ed.ac.uk (accessed 6 September 2016).

and was published and disseminated not only to units of the Territorial Force such as the 5th Seaforths but was also received by the 18th Division of the New Army.²⁹ While Notes from the Front contained some useful comments on the nature of war in the 1914 campaign, and the FSR laid out the general principles of war, the official training manuals used on a large scale in 1914 and 1915 did not give much assistance to young officers with no prior military training in the handling of platoons or companies in the attack.³⁰

The failure to update the official manuals with up to date information from the front had a knock-on impact on the effectiveness of the Territorial Force and New Army formations. In accordance with the war training syllabus, battalion, brigade and divisional manoeuvres of the kind which the 9th, 15th and 51st Divisions would undertake in France, only occupied the final two months of the six-month training period.³¹ These exercises were characterised by a lack of professionalism and highlighted significant inexperience and failures in staff work. William Nicholson, an officer on the staff of the 51st Division recorded that during one exercise ‘neither side attacked; the brigade on one side was scattered over miles of country and advanced some two miles in four hours; while the other brigade sat in a hole and successfully escaped notice’.³² The men of the 4th Cameron Highlanders were trained in the officially approved principles of fire and

²⁹ IWM, General Staff, *Notes from the Front* (London, 1914). The copy of this publication in the library of the Imperial War Museum is stamped as received by the headquarters of the 18th Division on 20 January 1915, the day prior to Cairnie being lectured on its contents.

³⁰ Ewing, *History of the 9th (Scottish) Division*, 9.

³¹ Simkins, *Kitchener's Army*, 296.

³² William Nicholson, *Behind the Lines: Account of Administrative Staff Work in the British Army, 1914–1918* (London, 1990 [originally published 1939]), 46-7.

movement as set out in the FSR; however, in practice, this consisted of ‘skirmishing over fields, hedges, ditches, dykes and fences after an imaginary enemy who we[re] usually put to complete rout in the end by a bayonet charge’.³³ A similar situation existed in the new armies. In one divisional exercise, Captain the Earl of Seafield got lost when trying to assault a defensive position and when he finally found the right coordinates the defenders had ‘marched home to bed’.³⁴ When the 7th King’s Own Scottish Borderers practised a night attack during the day, their signallers were forced to wave flags and pretend they were lamps.³⁵ Finally, an exercise run by the 15th Division was stopped, as the men had fallen out to eat blackberries they found by the roadside.³⁶ These examples highlight the difficulties in the training of units which were added to the First Army structure in the 1915 campaign. The over-reliance on pre-war manuals of instruction, coupled with the lack of relevant knowledge being transferred from the front, created an unrealistic set of training conditions which bore little resemblance to the conditions being experienced by units in France.

When the divisions of the Territorial Force and new armies arrived in France they found their textbook training had been overtaken by events on the ground. As a result, Rawlinson believed that the attachment of the 49th (West Riding) Division to his IV Corps in April would be of little value in offensive operations but they might prove

³³ *Inverness Courier*, 20 October 1914, 5.

³⁴ McEwen, *Fifth Camerons* 59-60.

³⁵ Goss, *A Border Battalion*, 7.

³⁶ Buchan & Stewart, *Fifteenth Division*, 5.

useful if trained to defend trenches, ‘which does not take much skill’.³⁷ However, even though the units followed the same written training syllabus in England, there was much disparity in perceived levels of effectiveness. For example, Rawlinson ‘rejoiced’ at the departure of the 51st Division from his corps in June ‘as they give much trouble’ and thought that he ‘gain[ed] materially by the exchange’ of the 51st and Canadian Divisions for the 48th (South Midland) Division of the Territorial Force and the 9th Division of the New Army.³⁸ Bannatine-Allason quickly realised that the 51st Division was poorly equipped for the rigours of life on the western front and informed Haig that his men needed more training before being asked to enter the trenches.³⁹ Haig answered that ‘infantry peace time training was little use in teaching a company how to capture a house occupied by half a dozen machine guns’.⁴⁰ Haig’s response demonstrates not only the deficiencies of using peacetime manuals as the primary means of knowledge dissemination to formations training in England, but that war managers in France were aware of the deficiencies and did little to rectify the situation. Serena’s study of adaptation in the US military in the Iraq War found that ‘training must fit the circumstances of the mission and operational environment’.⁴¹ That the methodology in 1914 and 1915 did not fit this model is demonstrated by the fact that while training in England in November 1914, the 6th Cameron Highlanders paraded every Saturday morning ‘to form square, front rank kneeling, bayonets fixed to receive a charge of

³⁷ CAC, Rawlinson Papers, RWLN I/1, Diary, 11 April 1915.

³⁸ CAC, Rawlinson Papers, RWLN I/3, Diary, 22 June 1915.

³⁹ NLS, Haig Papers, Acc.3155/100, Typescript Diary, 20 May

⁴⁰ NLS, Haig Papers, Acc.3155/100, Typescript Diary, 20 May

⁴¹ Serena, *A Revolution in Military Adaptation*, 12. See also, Martin Samuels, *Command or Control?: Command, Training and Tactics in the British and German Armies, 1888–1918* (London, 1995), 7.

Uhlan Cavalry'.⁴² In the British Army the training that regular, Territorial Force and New Army units received in the pre-war and pre-embarkation periods was not mission specific. The use of existing pre-war manuals led to the creation of groups of men who had been trained to be generic soldiers of the British Army rather than being trained as soldiers with a particular mission to accomplish – namely, the defeat of the German Army situated in a fortified defensive system by means of a trench-to-trench attack supported by a preparatory artillery bombardment and using a variety of tactical weapons systems.

Whereas the dissemination of knowledge through the existing training manuals provided a general introduction to soldiering, those produced and disseminated in France were based on practical experience and were mission specific. The production of written pamphlets and manuals in the theatre of war represented the BEF's formal attempts at creating and disseminating doctrine in a portable and accessible manner. This was a necessary response to the exponential growth of the British Army and represented the development of a more bureaucratic system of knowledge dissemination. Evaluation of the production of manuals and pamphlets in the field demonstrates how new knowledge was codified and disseminated across the BEF. Existing studies of the production and use of these pamphlets have tended to focus on the later period of the war: Beach argued convincingly that doctrine creation at GHQ was an uneven and haphazard process even after the creation of a dedicated Training Branch in early 1917; Fox-Godden examined the extent to which pamphlets and manuals produced on the western front were

⁴² IWM, Christison Papers, Memoir, 28.

disseminated to other theatres in 1917 and 1918; and Paddy Griffith focused on 1917 ‘as the “classic time” of the BEF’s manual production’.⁴³ This section represents the first attempt at understanding the nature and extent of the production and dissemination of codified new knowledge on the western front in 1915.

As Beach noted, the codification of new knowledge is a crucial component of any serious learning process.⁴⁴ The responsibility for the production and dissemination of official manuals and pamphlets until November 1915 lay with the Central Distribution Section (CDS) of the War Office in London who dispatched their publications to France for distribution by the Army Printing and Stationery Service (APSS). The first publication to be commissioned in the CDS series, as it became known, was *CDS.2 – Notes from the Front* which was issued in November 1914 and, as has been demonstrated, was also disseminated to troops training at home.⁴⁵ In 1915, the production of these publications was taken over directly by the APSS using the series code SS for Stationery Service.⁴⁶ Prior to February 1917, authorship of the CDS and SS pamphlets is unclear. Beach notes that until the creation of the Training Branch in February 1917, doctrine creation was the task of the GHQ staff who would assign a

⁴³ Beach, ‘Issued by the General Staff’, 464-91; Fox-Godden, ‘Beyond the Western Front’, 194-9; Paddy Griffith, *Battle Tactics of the Western Front*, 179-86.

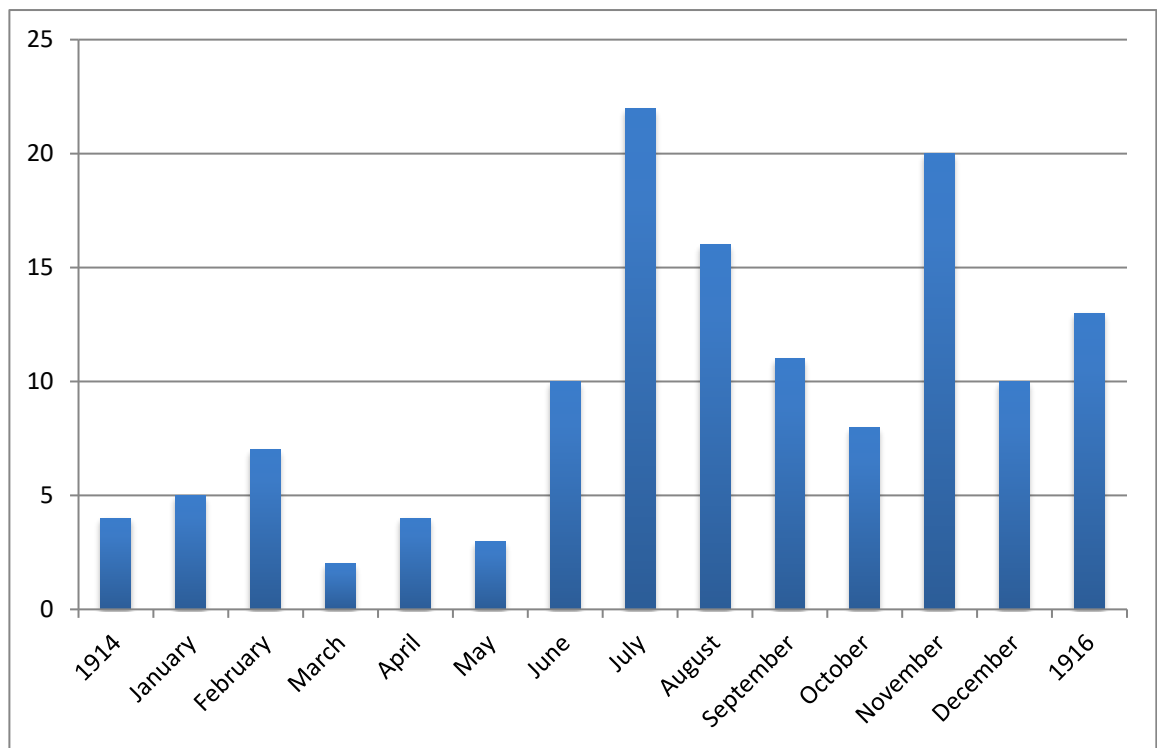
⁴⁴ Beach, ‘Issued by the General Staff’, 467.

⁴⁵ Chris Henderson, ‘Documents produced by General Headquarters, British Expeditionary Force, registered and disseminated by the Central Distribution Section, 1st Printing Company, RE. www.1914-1918.invisionzone.com (accessed 5 September 2016). *CDS.1 – Notes on Field Defences (Parts 1-7)* appears to have been commissioned earlier but distributed later, in December 1914. The subsequent list of CDS publications is not in chronological order.

⁴⁶ The actual date of the changeover is unclear. Griffith states that the SS publications were being printed by the APSS direct from six months after embarkation in August 1914, suggesting February 1915 as the start point of the SS publications whereas Fox-Godden suggests that the first SS publication, SS.23, was issued in November 1915.

writer or committee of writers on an *ad hoc* basis.⁴⁷ In total the CDS produced 128 pamphlets in the period January–December 1915 and 145 overall. Figure 5.1 demonstrates the production of pamphlets per month in the period 1914–1916.

Figure 5.1: Production of CDS Publications, 1914–1916



Source: Christopher Henderson, ‘Documents produced by General Headquarters, British Expeditionary Forces, registered and disseminated by the Central Distribution Service, 1st Printing Company, RE – Part 1: CDS1 to CDS299; Christopher Henderson, ‘Documents produced by General Headquarters, British Expeditionary Forces, registered and disseminated by the Central Distribution Service, 1st Printing Company, RE – Part 2: CDS301 to CDS388

⁴⁷ Beach, ‘Issued by the General Staff’, 490-1.

The production of pamphlets by the CDS averaged approximately ten publications per month in 1915. These pamphlets were organised within the CDS system into seven specific classifications: tactical; aeronautics; artillery; military engineering and trench warfare; signals service; machine guns; and meteorological.⁴⁸ While only one pamphlet was produced which studied meteorological conditions, twenty-four were issued which dealt with the day-to-day problems caused by trench warfare. The latter category encompassed a range of subjects including how to protect oneself during a poisonous gas attack, reports on types of German land mines and flamethrowers; and an eighteen-part series on defensive arrangements in trenches. Contemporary unit war diaries often do not mention the receipt of CDS publications, making an evaluation of the extent of dissemination of new knowledge in this manner difficult. However, the war diary of the Lahore Division of the Indian Corps does demonstrate that the pamphlets were disseminated regularly to divisional headquarters. On 29 May, the Lahore Division received copies of Notes from the Front – Part III; on 3 June they received Instruction for use of Chemical Grenades; and on 3 July they were issued with forty-eight copies of Notes on Artillery and ten copies of Notes on Strengthening a Defensive Portion of the Line which had been translated into Hindi for the native troops.⁴⁹ What is striking in the production of pamphlets is the emphasis on disseminating new knowledge at the tactical level of war; of the seventy publications listed in CDS.58 – List of General Staff Publications (corrected to 30th November 1915), sixty deal with tactical effectiveness in

⁴⁸ IWM, General Staff, *CDS.58 – List of General Staff Publications (corrected to 30th November 1915)*, issued 1 December 1915.

⁴⁹ TNA, WO95/3914, Lahore Division General Staff War Diary, 29 May, 3 June and 3 July 1915.

the practicalities of weapons handling and lessons for specialist formations such as the Royal Artillery and Royal Flying Corps.⁵⁰

The other ten publications in the CDS58 were recorded as being focussed on the tactical level, although examination of the titles reveals that they actually deal with what is now recognised as the operational level of war. Of these ten pamphlets, eight were manuals which had been translated and circulated. As chapter one demonstrated, Haig was consulted by the war managers of the French Army about the manner of the First Army's attack at Neuve Chapelle, and those lessons he identified were later passed back to the British in the form of the French doctrinal publication 'Note 5779'. That document was translated by GHQ and published as CDS.23 – Preliminary Deductions from Recent Engagements in June 1915. That pamphlet, and a companion publication CDS.24 – Object and Conditions of Combined Offensive Action, were certainly disseminated down the First Army structure to the level of divisional headquarters. On 19 June, the general staff of the 1st Division noted that they had received 'some admirable pamphlets translated from the French', which were 'full of valuable lessons and deductions' based on their experiences in the battles of May and June near Arras.⁵¹ In December, the General Staff published CDS.333 – A Study of the Attack in the Present Phase of War: Impressions and Reflections of a Company Commander which was written by a French officer, Captain Andre Laffargue, based on his experiences on 9

⁵⁰ IWM, General Staff, *CDS.58 – List of General Staff Publications (corrected to 30th November 1915)*.

⁵¹ TNA, WO95/1228, 1st Division General Staff War Diary, 19 June 1915.

May at Neuville-St-Vaast.⁵² While Laffargue's manual was widely disseminated in both the British and French armies, the extent to which it influenced a change in thinking among war managers is unclear.⁵³

By the end of November, there was a concerted effort to learn from the German experience through the circulation of captured documents. Indeed, of the twenty pamphlets published by the CDS in November, eleven were translations of German publications.⁵⁴ Analysis of these documents highlights the time lapse between acquisition and dissemination. CDS.80 was found on the body of a German officer in May and CDS.81 was captured on 16 June 1915; however, both documents were only published and disseminated by the British in November. Furthermore, the translated publications highlight the importance of the dissemination of new knowledge to the German process of battlefield adaptation. Among the doctrinal publications captured and circulated by the British were documents which examined the operational performance of the German Fifth Army in attacks in the Argonne and lessons drawn from fighting in the Ban de Sapt by General von Eberhardt.⁵⁵ German war managers attempted to identify lessons from their own experiences and transferred them horizontally across the institution at the level of army command. Additionally, they

⁵² IWM, General Staff, *CDS.333 - A Study of the Attack in the Present Phase of War: Impressions and Reflections of a Company Commander*, issued December 1915; Griffith, *Battle Tactics on the Western Front*, 54-7; Krause, *Early Trench Tactics*, 9.

⁵³ Krause, *Early Trench Tactics*, 9.

⁵⁴ Henderson, 'Documents produced...by the CDS', part 2.

⁵⁵ IWM, General Staff, *CDS.84 - Experiences of the 5th Army in the attacks in the Argonne*, issued November 1915; IWM, General Staff, *CDS.83 - The Lessons of the Recent Fighting in the Ban de Sapt by General von Eberhardt*, issued November 1915.

sought to examine critically the performance of the French Army; CDS.303 was written by the Germans in April 1915, and was based on experiences of battles in Champagne the previous winter, and in which the author examined the organization of the French lines of defence and the German attempts to combat attempted attacks.⁵⁶ Another publication, CDS.304, sought to draw lessons ‘based on the knowledge acquired from the errors which appear to have been committed by the French’ in the same winter battles.⁵⁷ The production of translated documents may suggest that the British attempted to learn from other armies on the western front in the same manner as the German Army did, however analysis of the First Army, I Corps and IV Corps war diaries reveals no evidence that the translated German publications were passed to them from GHQ.

Nor is there evidence that the British war managers viewed the publication of the official CDS pamphlets as a particularly important means of disseminating new operational knowledge. Only one pamphlet was issued in 1915 which can be described as relating to the British operational level of war. CDS.5 - Trench Warfare: Notes on Attack and Defence, was published in February 1915 and was drawn from memoranda previously issued for the guidance of troops at the front.⁵⁸ It was the first British publication which specifically considered the organization and execution of localised trench-to-trench

⁵⁶ IWM, General Staff, *CDS.303 – Experiences Gained in the Winter Battle in Champagne from the Point of View of the Organisation of the Enemy’s Line of Defence and the Means of Combating an Attempt to Pierce our Line*, issued November 1915.

⁵⁷ IWM, General Staff, *CDS.304 – Memoir written in compliance with the memorandum of the Chief of the General Staff of the Army, No.603, dated 18th March 1915. Proposals for the technical methods to be adopted in an attempt to break through a strongly fortified position, based on the knowledge acquired from the errors which appear to have been committed by the French during the winter campaign in Champagne*, issued November 1915.

⁵⁸ IWM, General Staff, *CDS.5 – Trench Warfare: Notes on Attack and Defence*, issued February 1915.

attacks and it provided a good deal of relevant advice including the need for close cooperation of infantry and artillery, the creation of ‘a wall of fire’ to stop the enemy from reinforcing the attacked trench, parties of engineers to advance with the attacking columns, and the careful organization of local reserves.⁵⁹ Indeed, many of the points contained in *Trench Warfare* were incorporated into the planning for the Battle of Neuve Chapelle in March, the month after the pamphlet’s issue. The continuing relevance of the publication following that battle was shown on 17 April, when Major-General Keary of the Lahore Division watched a practice attack by the entire Ferozepore brigade ‘on the lines indicated in “Trench Warfare”’.⁶⁰

Issued alongside the CDS publications were the manuals and pamphlets produced by the Stationery Service (SS). Over the course of the war over a thousand documents were issued in the SS series, however no complete list survives which records their titles and dates of publication. Analysis of surviving publications reveals that 110 SS numbers were issued prior to the Battle of the Somme in July 1916. However, there appears to have been much crossover with the CDS publications; indeed where low-numbered SS pamphlets can be found their identification number corresponds with that in the CDS list. Thus, SS.23 – Preliminary Deductions for Instruction from Recent Engagements, which was issued in November 1915 was first issued as CDS.23 in June. While the CDS and SS publications were useful in disseminating new knowledge on trench

⁵⁹ IWM, General Staff, *CDS5 – Trench Warfare*, 2-4.

⁶⁰ TNA, WO95/3913, Lahore Division General Staff War Diary, 17 April 1915.

management or on weapons handling, they were not used by the BEF as a means of sharing a new operational methodology on a large scale.

To briefly summarise, the production of codified information and its dissemination via the publications of the Central Distribution Service and the Stationary Service marks the initial attempts by the war managers to consider and transfer new knowledge across the force. While that knowledge was initially largely confined to informing troops on the unfamiliar procedures of trench management and tactical weapons handling, publications which dealt with the operational level of war were produced towards the end of the campaign. In the majority of instances these were translations of French and German documents, which demonstrates at least a willingness on the part of the war managers to consider the experiences of others outside their immediate surroundings. However, the degree to which these were evenly distributed or the extent to which war managers actively considered their contents remains unclear. Of the publications produced by the BEF based on their own experiences, *CDS.5 – Trench Warfare: Notes on Attack and Defence* was the most influential in influencing battle-planning procedures, however, following the Battle of Neuve Chapelle, it was not continually updated with the newest information. In terms of Organisational Development, the use of the CDS and SS publications as a means of knowledge-transfer laid the platform for further, more considered, attempts at information dissemination.

On 8 November 1915, First Army issued an order to the headquarters of the I, III, IV and XI Corps, instructing them to each send a senior officer with ‘trench experience’ to

First Army headquarters the following day for the purpose of ‘discussing and criticising’ a draft of a pamphlet entitled ‘Notes for Infantry Officers on Trench Fighting’.⁶¹ That pamphlet was eventually published in March 1916 as SS.101 – Notes for Infantry Officers in Trench Warfare.⁶² This confirms Beach’s assertion that prior to February 1917 *ad hoc* committees were often used to create new doctrine, however the extent that this was controlled by ‘the busy operations staff at GHQ’ is unclear.⁶³ Certainly there is no indication in the war diaries that GHQ instructed First Army headquarters to convene a committee to critique the pamphlet, so the initiative may have been undertaken at the behest of First Army. The over-riding principle on which the document was founded was that trench warfare was ‘only a phase’ of operations on the western front and the purpose of that phase was to create a favourable situation for field operations to resume.⁶⁴ Furthermore, success in the attack depended on two main factors: training of the troops and thoroughness of preparation.⁶⁵ The document itself is split into five sections. While the first four sections deal with the characteristics of trench warfare, the citing and construction of trenches, general trench routine, and the defence of a trench system, the final section provides notes on the system of attack.

Analysis of the final section of SS.101 illustrates the extent to which the lessons of the 1915 campaign – in terms of offensive action at the operational level – were incorporated into official formal doctrine for wide-spread dissemination. The first

⁶¹ TNA, WO95/154, First Army General Staff War Diary, 8 November 1915.

⁶² IWM, General Staff, *SS. 101 – Notes for Infantry Officers on Trench Warfare* (London, 1916).

⁶³ Beach, ‘Issued by the General Staff’, 490-91.

⁶⁴ IWM, General Staff, *SS. 101 – Notes for Infantry Officers on Trench Warfare*, 5.

⁶⁵ IWM, General Staff, *SS. 101 – Notes for Infantry Officers on Trench Warfare*, 5.

evidence of learning from the experiences of the battles of 1915 comes in the introduction to the chapter where the author asserts that the attack began ‘weeks before the day fixed for the assault’.⁶⁶ This is a recognition that all available time should be taken to plan the infantry attack thoroughly and methodically. In this, it marks a great departure from the First Army war managers’ opinions of preparation time prior to the Battle of Neuve Chapelle in March when Haig assumed that the attacking troops would be ready to undertake offensive operations with only ten days preparation.⁶⁷ As the campaign progressed, more time was taken in the planning phase of operations; while the planning of Neuve Chapelle was eventually extended to thirty-two days, the planning of Aubers Ridge took fifty-eight days and the planning of the Battle of Loos took three months. The planning of the Battle of the Somme, the subsequent British offensive action on the western front in the 1916 campaign, took over six months from the Chantilly Conference to the assault on 1 July. SS.101 also highlighted the need to remove troops from the trenches to enable them to receive special training for the assault.⁶⁸ This approach had worked well during the Battle of Neuve Chapelle when 23 Brigade of the 8th Division was withdrawn from the trenches for a week prior to the attack in a move which war managers believed immediately benefitted the officers and men.⁶⁹ During this time, the four battalions of 23 Brigade were engaged in a programme of intense physical training, inspections in full battle order, reconnoitering the area of ground to be attacked, and in attending local conferences under the command of the

⁶⁶ IWM, General Staff, *SS.101 – Notes for Infantry Officers on Trench Warfare*, 56.

⁶⁷ NLS, Haig Papers, Acc.3155/100, Typescript Diary, 6 February 1915.

⁶⁸ IWM, General Staff, *SS.101 – Notes for Infantry Officers on Trench Warfare*, 57.

⁶⁹ TNA, WO95/1671, 23 Infantry Brigade General Staff War Diary, 4 March 1915.

GOC, Brigadier-General Sir Reginald Pinney.⁷⁰ Other elements of the IV Corps ‘rehearsed in detail’ the means of arriving at and leaving from their forming up positions, and unit commanders used the break from trench-holding to train their men in the specific roles they were expected to undertake in the coming battle.⁷¹

This, then, is an example of successful organisational learning in the First Army. The withdrawal of attacking troops from the trench line for a period of rest and intensive training prior to an offensive movement was identified by war managers as being a success, and was repeated again by removing elements of the 1st Division from the trenches in May, and then by withdrawing some divisions prior to the Battle of Loos in September. Indeed, the planning phase was further extended in the 1916 campaign when Haig issued a memorandum calling for up to four and a half weeks dedicated training on a brigade-by-brigade basis for the corps which were earmarked for the first attack on the Somme.⁷² The lesson that withdrawal from the line for training prior to the offensive was accepted by the war managers to such an extent that it was specifically mentioned in *SS.101*, the only publication which can be shown to have been drawn up by the First Army war managers based on their collective experiences in the 1915 campaign. In this, it was written into formal doctrine, disseminated throughout the army and was institutionalised as the new norm.

⁷⁰ IWM, Private Papers of Brigadier-General Sir Reginald Pinney, uncatalogued papers, Diary, 2-8 March 1915.

⁷¹ TNA, WO95/154, First Army General Staff War Diary, Sir Henry Rawlinson, ‘Memorandum on Operations of IV Corps, 10–15 March 1915’

⁷² NLS, Haig Papers, Acc.3155/104, Douglas Haig, ‘Command on Front of Attack’, 13 April 1916.

While the lessons codified and disseminated in SS.101 represent how organisational development could take place, the example was not the norm over the course of the 1915 campaign. Indeed, only towards the end of the campaign can it be shown that First Army's war managers gave any consideration to incorporating lessons learned into formal written doctrine and disseminating it throughout the army. Despite the war managers' production and dissemination of more formal doctrine in time for the planning phase of the Somme campaign, the extent to which pamphlets were distributed to a level low enough to be useful in altering operational performance remains unclear. Certainly in February 1916 battalion officers undertaking offensive actions against the German lines, mainly through the means of trench raids, repeated 'avoidable mistakes' due to their 'ignorance of certain facts and useful lessons drawn from recent similar enterprises'.⁷³ Haig concluded that to avoid this in future, careful choices needed to be made in both the selection of subject matter and the means of communicating it down the army structure to regimental officers, as there existed a danger that if officers were presented with too much written information, it might have gone unread.⁷⁴ With particular respect to trench raiding, GHQ produced SS.107 - Notes on Minor Enterprises, a short pamphlet, based on recent experience, in March 1916. This publication emphasised that definite rules for conducting trench raids could not be laid down and the information contained therein 'may be useful as a guide' for future operations.⁷⁵ As this publication was produced after Haig's comments on the importance of select material being passed to regimental officers, it can be assumed that

⁷³ NLS, Haig Papers, Acc.3155/104, Launcelot Kiggell to Army Commanders, 21 February 1916.

⁷⁴ NLS, Haig Papers, Acc.3155/104, Launcelot Kiggell to Army Commanders, 21 February 1916.

⁷⁵ IWM, General Staff, SS.107 – *Notes on Minor Enterprises* (March 1916).

this was the type of pamphlet he meant to be circulated. However, this represents somewhat of a paradox as, despite Haig's suggestion that 'officers undertaking enterprises' – platoon and company commanders in the case of trench raids – should view the latest publications, *SS.107* was earmarked as a 'confidential document' which was not to be taken any further forward than brigade headquarters. While there were practical reasons for this, for example, not wanting the document to be captured from a dead or wounded officer, this example highlights a lack of clarity regarding the responsibility of the dissemination of newly created doctrinal publications and their intended audience. That this was not addressed until the establishment of the Training Branch in February 1917 demonstrates the lack of importance war managers attached to creating a formal force-wide system for the dissemination of new knowledge.

Despite this, information sharing did occur on an informal basis at different levels of the First Army hierarchy. This can be viewed in terms of the sharing of *ad hoc* reports rather than formal doctrinal publications. This process involved the identification of minor enterprises such as trench raids and bombing actions which had been particularly successful or well organised, the reports of which were then circulated around particular formations to be used as templates for similar future operations. A good example of this is the experience of the 15th (Scottish) Division after its arrival with the First Army in July 1915. On 28 August, Brigadier-General Archibald Montgomery, the Chief of Staff of IV Corps, circulated a memorandum to the 15th and 47th Divisions which was originally written by the general staff of the 8th Division in the planning phase of the Battle of Neuve Chapelle in March. This document was comprised of extracts from the

8th Division scheme of attack at Neuve Chapelle and included sections on how to assemble for the attack, medical preparations, the supply of attacking troops and the importance of utilising wire-cutting and trench-blocking parties in the attack.⁷⁶ Similarly, Montgomery forwarded a memorandum two days later to all three of the IV Corps' divisions which shared extracts from operational orders and reports by the GOC of the 6th Division and the GOC of 16 Infantry Brigade, both in the Second Army, detailing lessons from their operations at Hooze earlier in August.⁷⁷ There is no indication in either the IV Corps or First Army war diaries that these documents were transferred to IV Corps through any official channels nor is there any indication of I Corps receiving the same data. Rather, it seems likely that Montgomery received these papers informally, direct from the war managers of the VI Corps and then chose to disseminate them throughout IV Corps hierarchy on his own initiative. Towards the end of the 1915 campaign GHQ and First Army headquarters also began to use the informal transfer of best practice guidelines as a means of sharing new knowledge. On 18 December, GHQ circulated reports on a bombing expedition undertaken by the 1st Battalion, Cheshire Regiment on 6–7 December, and a week later supplied the First Army with thirty copies of a document which presented the summary of a small offensive carried out by the 6th Battalion, Gloucester Regiment the previous month.⁷⁸

⁷⁶ TNA, WO95/1911, 15th Division General Staff War Diary, 'Extracts from Memorandum regarding preparations made for operations for the capture of Neuve Chapelle', 28 August 1915.

⁷⁷ TNA, WO95/1911, 15th Division General Staff War Diary, 'Extract from Report by GOC 6th Division in reply to questions asked by Second Army', 14 August 1915; 'Extract from Report on the Operations at Hooze, 9th August 1915'.

⁷⁸ TNA, WO95/1911, 15th Division General Staff War Diary, 'Summary of Small Offensive Operation carried out by the 6th Battalion, Gloucester Regiment (48th Division) on 25/26th November 1915' and 'Report on Bombing Expedition south of Mametz by the 1st Cheshires, 6/7th December 1915'.

Similarly, First Army headquarters circulated particulars of a raid at Neuve Chapelle of 11 December which the GOC considered to be ‘a good example of a minor enterprise’.⁷⁹ The presence of these documents in the war diary of the 15th Division highlights that informal information sharing took place in the First Army towards the end of the 1915 campaign. While the first examples of this were confined to Montgomery at IV Corps headquarters, by the end of the year both GHQ and First Army headquarters had adopted this method.

The informal sharing of documents was not only used in the theatre of war and there is evidence that documents were passed from units or individuals at the front to elements of the New Army training in Britain in early 1915. Study of the training period of the 18th Division reveals that the formation used reports sent back from the front to prepare their own training schemes. Of particular importance were the reports compiled by Major-General Henry Horne, GOC 2nd Division, and Brigadier-General the Earl of Cavan, GOC 4 (Guards) Brigade in I Corps, regarding the successful attack on the Brickstacks at Cuinchy in early February 1915.⁸⁰ These files contained not only factual reports of the actions but draft operational orders, sketches of trenches and notes on artillery preparation.⁸¹ Significantly, the turnaround time of the passing of documents informally from the front to formations at home was much shorter than even the formal top-down dissemination as practiced towards the end of 1915. To give an example,

⁷⁹ TNA, WO95/1911, 15th Division General Staff War Diary, ‘Summary of a Bombing Raid carried out by the 4th Battalion Grenadier Guards, 3rd Guards Brigade on the 11th-12th December against the enemy’s trenches N. E. of Neuve Chapelle’.

⁸⁰ IWM, Maxse Papers, Doc.3255, File 13, ‘Specimen Attack Orders, February–April 1915’.

⁸¹ IWM, Maxse Papers, Doc.3255, File 13, ‘Specimen Attack Orders, February–April 1915’.

notes by an airborne artillery observer, Lieutenant Game of the 32nd Battery, Royal Field Artillery, were compiled on 18 April 1915 and were received by the 18th Division headquarters in Colchester only four days later.⁸² In comparison, the formal dissemination of written doctrine took far longer, and in the case of *SS.101* it took four months from discussion at First Army headquarters to dissemination by GHQ. The presence of informal knowledge dissemination in the First Army in 1915 corresponds with Catignani's findings relating to the British Army in Afghanistan. In 1915 on the western front, just as in conflict in the twenty-first century, informal sharing of new knowledge was used to make up for deficiencies in the institution's formal learning procedures.⁸³

To summarise, by the end of the 1915 campaign, the war managers in the First Army sought to use both formal and informal methods of knowledge-transfer in order to disseminate information across the force. Pamphlets, such as *SS.101*, were created by small groups of experienced war managers and represent the most up to date operational information. *SS.101* showed that the war managers realised the need for a period of careful, methodical preparation in which attack formations were withdrawn from the line for specialised training. However, for the majority of the 1915 campaign, this considered approach was not the norm and when it became more common towards the end of 1915 there was no standard, formal application. To counter the lack of a formal knowledge-transfer system, officers began to disseminate what can be termed here 'best-

⁸² IWM, Maxse Papers, Doc.3255, File 13, 'Specimen Attack Orders, February–April 1915'.

⁸³ Catignani, 'Coping with Knowledge', 32.

practice guidelines' rather than centrally produced documents. This approach originated at IV Corps headquarters but, by the end of the campaign, was also common practice at GHQ and First Army headquarters. Indeed, this informal sharing of information began earlier with regards to the transfer of new knowledge from units at the front to those training in Britain and was a more common and quicker means of disseminating information. The use of written, codified publications does, however, only represent one of the means by which knowledge-transfer was achieved in the BEF in 1915.

Practical Dissemination of Lessons Learned

While the creation and dissemination of formal and informal documents was important in sharing information across the BEF in 1915, war managers also relied on more practical methods of knowledge-transfer. On 26 October 1915, the Chief of the General Staff, Sir William Robertson, issued a memorandum detailing Sir John French's thoughts on the general military policy that the BEF would pursue over the course of the coming winter.⁸⁴ This document highlighted a change in thinking by senior war managers, regarding the best methods of disseminating new knowledge across the force. The changing structure of the BEF, including the incorporation of New Army divisions and inexperienced replacements in other formations, necessitated the adoption of a more thorough and relevant instruction in basic and specialist training. In order to do this, Sir John French recognised that the 'changed conditions [of war] may entail some departure from the principles of our training manuals and require some centralisation of instruction

⁸⁴ TNA, WO95/159, First Army General Staff War Diary, Sir William Robertson to Army Commanders and GOC Cavalry Corps, 26 October 1915.

under the best instructors'.⁸⁵ The change away from documents-based knowledge-transfer was not universally accepted among the BEF's war managers. Based on his experiences, Douglas Haig, for example, believed that 'the principles laid down in [the] training manuals held good' in November 1915.⁸⁶ French's realisation marked a departure from previous informal approaches to training provision and represented the first steps in ushering in a more formal system of information sharing. This section examines how the provision of training moved from using informal methods to a more formal structure over the course of the 1915 campaign. It demonstrates that while this was a positive move for the First Army, a lack of clarity over the responsibility for training provision, education and professional development meant that the maximum possible effectiveness was not achieved.

Training plays a crucial role in the organisational development of military institutions through the imparting of the general and specific military skills required for battlefield success. However, the training of a national armed force is also important in reinforcing institutional identity, fostering traditions and embodying the military culture of the organisation.⁸⁷ As Millett, Murray and Watman have noted, training accounts for one of the 'companion issues' of military effectiveness and is one of the key means by which

⁸⁵ TNA, WO95/159, First Army General Staff War Diary, Sir William Robertson to Army Commanders and GOC Cavalry Corps, 26 October 1915.

⁸⁶ TNA, WO95/160, First Army General Staff War Diary, Sir Richard Butler, 'First Army, 1915 - Instructions for Training', 10 November 1915.

⁸⁷ Peter Wilson, 'Defining Military Cultures', *Journal of Military History* 72.1 (January 2008), 32; Theo Farrell, 'The Dynamics of British Military Transformation', *International Affairs* 84.4 (July 2008), 779.

knowledge can be transmitted across the organisation.⁸⁸ Furthermore, training can also be seen as a ‘combat multiplier’ which increases the offensive potential of a military formation and enhances the possibility of victory.⁸⁹ However, as this chapter has shown, an important caveat is that the training and education provided must be relevant to the dominant battlefield circumstances in order to be truly effective; in other words, it must be ‘mission specific’. Whereas the previous section demonstrated that the provision of out-dated training based on pre-war publications reduced the effectiveness of new formations arriving with the First Army in 1915, this section will examine the delivery of both formal and informal training and education in the war theatre over the course of the 1915 campaign. It will highlight some of the problems inherent in conducting mass training in war and will assess their implications for the organisational development of the First Army.

In the 1915 campaign, training provision broke down into three main areas – physical, practical and theoretical. Physical training was the dominant method of training in the pre-war British Army. Its importance in the wider training provision was recognised by the publication of the *Manual of Physical Training* in 1908, which enshrined the importance of physical fitness of soldiers into British official doctrine.⁹⁰ When the Canadian Division was added to the First Army structure in March 1915, Colonel C.F. Romer, the divisional chief of staff, noted that the training of newly arrived units

⁸⁸ Millett, Murray and Watman, ‘Effectiveness of Military Organisations’, 2.

⁸⁹ Samuels, *Command or Control*, 7.

⁹⁰ General Staff, *Manual of Physical Training* (London, 1908).

‘requires extreme physical fitness on the part of the men’.⁹¹ Similarly, Major-General Haking of the 1st Division found, in June 1915, that following an extended period in the trenches his ‘men [were] not at all fit for marching. Hope we are out for a week or so to give [commanding officers] a chance to pull them together’.⁹² Officers of 1 Brigade found that when men came out of action ‘weary and unstrung’ there was no better way of ‘restoring alertness’ than to revert to ‘the old steady drill’ or ‘a short route march or physical drill’.⁹³ In order to raise levels of physical fitness, units of the First Army spent much of their available training time conducting route marches and engaged in physical training and running drill, particularly when withdrawn from the line in order to train for a specific attack.⁹⁴ The 4th Cameron Highlanders, who served as part of 24 Brigade in the 8th Division between 22 February–9 April, and then as part of 21 Brigade of the 7th Division until December 1915, conducted forty route marches in their first ten months in France.⁹⁵ In total, thirty of the route marches undertaken by this battalion were completed in the period 19 March–25 June, demonstrating the immediate importance placed upon increasing fitness of newly arrived infantry battalions. For Haig, physical fitness was allied to discipline, something which he considered separate from military training and upon which he placed the greatest importance.⁹⁶ While physical training

⁹¹ Library and Archives of Canada, RG9-III-D-3/4823/36-37, War Diary of the General Staff of the 1st Canadian Division, March 1915, Appendix.30, Colonel C.F. Romer to 1st, 2nd and 3rd Canadian Infantry Brigades, 26 March 1915, online, <http://collectionsCanada.gc.ca> (accessed 22 September 2016).

⁹² TNA, WO95/1228, 1st Division General Staff War Diary, 20 June 1915.

⁹³ F. Loraine Petre, Wilfred Ewart and Sir Cecil Lowther, *The Scots Guards in the Great War, 1914–1918* (London, 1925), 96.

⁹⁴ Boraston and Bax, *Eighth Division*, 18, 33.

⁹⁵ TNA, WO95/1659, 4th Cameron Highlanders War Diary, February–December 1915.

⁹⁶ There are numerous instances in Haig’s diary where he mentions that formations which had performed poorly were to be withdrawn from the line for a period of training and discipline. See, for example, NLS, Haig Papers, Acc.3155/103, Typescript Diary, 4, 23 and 27 October 1915.

was important in maintaining soldiers' discipline in the trenches, and enabled them to withstand the rigours of trench warfare, it was in no means mission specific and involved no attempt to disseminate newly-acquired tactical or operational knowledge.

From July 1915 onwards, emphasis moved away from physical training towards more practical, mission-specific training. This split into two main spheres; first, the training of units to attack particular positions, typically as part of a larger formation and which was known as 'combined training', and second, the training of individuals in weapons handling and imparting new technical knowledge based on experience, known as 'individual training'. Turning first to combined training, it can be shown that there was a significant change in operational thought over the course of the campaign, although the pace of change varied according to formation. In April 1915, the Ferozepore Brigade of the Lahore Division conducted a mock attack on 'an imaginary line of trenches' in the same manner as those utilised during the home training of the New Army divisions.⁹⁷ At the same time, the 1st Division made preparations for the construction of a 'Breastwork Training Course' at Le Vertbois Farm in their own allocated training area, which took the form of two lines of breastworks some 300 yards apart, which represented generic British and German trenches.⁹⁸ This development was a response to a problem identified by Haig in January when he witnessed a practice bombing demonstration in which the men struggled to get out over the British breastworks during

⁹⁷ TNA, WO95/3913, Lahore Division General Staff War Diary, 17 April 1915.

⁹⁸ TNA, WO95/1228, 1st Division General Staff War Diary, 15 April 1915. The first classes were run on 21 April.

a mock attack.⁹⁹ However, while the men of the 1st Division were trained over the Breastwork Training Course in April, other formations of the First Army were not. Such discrepancies indicate the differences in methodology according to formation, and the lack of importance attached to the creation of a uniformity of approach through the dissemination of identified lessons.

The problem of men being unable to leave their own trenches in the attack was not rectified in time for the Battle of Givenchy in June, where the difficulties faced by the 7th, 51st and Canadian Divisions resulted in ‘isolated detachments [advancing] instead of a strong well-controlled line of several ranks deep’.¹⁰⁰ However, even when isolated detachments found their way into the German lines, such as on the 8th Division front at Aubers Ridge, the trench system with which they were confronted was an alien environment and the confusion this caused led to the stagnation of the attack. The response was to construct replicas of the German trench system based on reports of British soldiers who had entered the German line and had drawn up diagrams of the new German style of trench construction.¹⁰¹ The troops were then ‘practised in attacking the model so that they know exactly what to look for and where to turn etc. once they get into the enemy’s line’.¹⁰² For Haig, this was most important as ‘in a maze of hostile

⁹⁹ NLS, Haig Papers, Acc.3155/100, Typescript Diary, 19 January 1915.

¹⁰⁰ TNA, WO95/156, First Army General Staff War Diary, Sir Henry Rawlinson to First Army, covering letter to ‘Report of Operations of IV Corps from 13th to the 17th June 1915’, 21 June 1915. This information seems to have come to IV Corps from Gough’s Seventh Division who reported the difficulties in their after action report.

¹⁰¹ TNA, WO95/156, First Army General Staff War Diary, Sir Hubert Gough to IV Corps, ‘Report on Operations’, 20 June 1915. The first replica trenches were constructed by the First Division on 20 June.

¹⁰² NLS, Haig Papers, Acc.3155/103, Typescript Diary, 31 October 1915.

trenches it is almost impossible to find one's way about'.¹⁰³ The driver of this initiative appears to have been Major-General Gough, the commander of the 7th Division, who identified the problem and, when promoted commander of I Corps in July, ordered his three divisions – the 2nd, 7th and 9th who would attack on the first day at Loos – to practise 'issuing from trenches to the assault' and bombing the German trenches they were to attack.¹⁰⁴ Gough himself then attended practice demonstrations by units under his command, such as that undertaken by the 10th Argyll & Sutherland Highlanders on 26 August.

By October, the idea of creating replicas of German positions had spread to parts of IV Corps. Prior to an attack on German positions at Hulluch, the 47th Division ordered the construction of the 'Hulluch Course', an exact replica of the German lines over which the attacking 142 Brigade would practise their assault for four days prior to undertaking the offensive.¹⁰⁵ While the course was constructed on the exact scale as Hulluch village, time constraints meant that only flags could be used to mark out the various positions. The attack, carried out on 13 October, failed, but the battalions of 142 Brigade continued to train over the Hulluch course until the cessation of active operations were announced at the end of the month.¹⁰⁶ Haig also realised the importance of creating replica trenches, albeit far later than some of his subordinates, and even impressed on Major-General Haking the importance of digging model German trenches a full four months

¹⁰³ NLS, Haig Papers, Acc.3155/103, Typescript Diary, 31 October 1915.

¹⁰⁴ TNA, WO95/1733, Ninth Division General Staff War Diary, 20, 22 August 1915.

¹⁰⁵ TNA, WO95/2699, Forty-Seventh Division General Staff War Diary, 9 October 1915.

¹⁰⁶ Maude, *The 47th (London) Division*, 39.

after Haking had already done so.¹⁰⁷ However, this lesson was accepted by the war managers to the extent that it was specifically incorporated into new doctrine in SS.101 which advised that ‘the enemy’s defensive lines should be reproduced somewhere to actual scale’ behind the British lines and the men practiced in attacking them, both with and without officers, until they knew their specific roles and those of the men around them.¹⁰⁸ In doing so, this lesson can be said to have become the new normal in British attack methodology training and provides a further example of how the wider institutionalisation of new knowledge could work.

The second area, that of individual training, involved increasing the effectiveness of weapons specialists. This can be best examined through analysis of the First Army’s approach to the training of bombers and grenadiers. Over the course of the campaign, as the lack of high explosive ammunition forced the infantry to adopt tactics more akin to siege methods in the offensive, the First Army began to place greater emphasis on the importance of using bombs and grenades in offensive operations.¹⁰⁹ Assessments of the 1st Division attack at the Battle of Aubers Ridge concluded that the men were not sufficiently well trained in bomb throwing to defeat the inevitable German bombing counter-attack, following a British assault on their trenches.¹¹⁰ Similarly, at Festubert, the 4th Cameron Highlanders found it ‘impossible’ to defend their newly captured

¹⁰⁷ NLS, Haig Papers, Acc.3155/103, Typescript Diary, 29 October 1915; TNA, WO95/1228, First Division General Staff War Diary, 21 June 1915.

¹⁰⁸ IWM, General Staff, *SS.101 – Notes for Infantry Officers on Trench Warfare* (published March 1916).

¹⁰⁹ NLS, Haig Papers, Acc.3155/101, Typescript Diary, 22 June 1915.

¹¹⁰ TNA, WO95/1228, First Division General Staff War Diary, 17 June 1915.

trench from a German bombing counter-attack.¹¹¹ As a result of the difficulties experienced, formations began to include bombing practice into their informal training programmes. As the 1st Division recognised that in terms of bombing they were ‘a good way behind the Germans’, they concentrated on bombing practice during their period in corps reserve during the month of June using the practice German trenches they had constructed two months earlier.¹¹² Results, however, appear to have been patchy as Haig commented a month later that of the division’s three brigades, the 1st Munster Regiment of the 3rd Brigade ‘had done well at bombing’, whereas the ‘Germans seem to have got the upper hand over the 1st Brigade’.¹¹³

Despite the identification of concerns over the ability and quality of bombing in the First Army, again the war managers made little attempt to standardise operational procedure on a large, force-wide scale. While a ‘Bomb School’ was established behind the lines in March, officers and men were only trained in small numbers and the training tended to focus on the use of trench mortars rather than the bombs and grenades needed for a trench-to-trench attack. When guidance came, it arrived from GHQ. In October, Sir John French issued a memorandum which altered how infantry battalions approached training in bomb throwing. Experience of the Battle of Loos demonstrated that it was no longer best practice for the battalion structure to include a dedicated bombing platoon,

¹¹¹ TNA, WO95/1659, 4th Cameron Highlanders War Diary, 18 May 1915.

¹¹² TNA, WO95/1228, First Division General Staff War Diary, 17-26 June 1915.

¹¹³ NLS, Haig Papers, Acc.3155/103, Typescript Diary, 30 July 1915.

rather every platoon in a battalion should be prepared to carry out a bombing attack.¹¹⁴ Indeed, the commander of the Lahore Division ordered his troops to pay particular attention to advanced training in bombing ‘in consequence of the news of the recapture of the Hohenzollern Redoubt by a German bombing attack’.¹¹⁵ This blanket training replaced the previous model whereby bombers were chosen from within the ranks, as and when required, to complete a three day course which concluded with an examination of the soldiers’ proficiency in throwing bombs.¹¹⁶ This change in methodology necessitated a change in how new knowledge was disseminated across the BEF. As a result, a number of instructional schools were established at various levels across the BEF which allowed for a more structured, formal approach to training.

The creation of instructional schools highlights the existence of a theoretical level of training in the BEF in 1915. Fox-Godden suggested that training schools represented a means of interpreting the material published and disseminated in the centrally produced doctrine which, despite its codification, remained inaccessible to many soldiers.¹¹⁷ In terms of organisational learning, Fox-Godden classified the establishment and use of training schools as a formal, ‘documents-to-people’ method of knowledge-transfer as the syllabi of the schools were based on the doctrinal pamphlets and manuals produced in the CDS and SS series. However, this classification does not fit the creation of schools in the 1915 campaign, which were organised and run on a more informal ‘people-to-

¹¹⁴ TNA, WO95/1911, Fifteenth Division General Staff War Diary, Sir John French, ‘Memorandum on the lessons to be drawn from recent operations’, 5 October 1915.

¹¹⁵ TNA, WO95/3914, Lahore Division General Staff War Diary, Keary to units, 5 October 1915.

¹¹⁶ IWM, Private Papers of 2nd Lieutenant Montague Sidney Goodban, Doc.12205, Diary, 21-29 June 1915.

¹¹⁷ Fox-Godden, ‘Beyond the Western Front’, 200.

people' basis. As Simon Robbins pointed out, prior to the creation of the Training Branch in February 1917, the establishment of instructional schools was undertaken on the initiative of local commanders rather than being part of a centrally controlled plan.¹¹⁸ An example of this is the genesis of the Machine-Gun School which was established by GHQ in November 1914. Following extreme casualties at the First Battle of Ypres, Major-General Sir Thompson Capper invited Major C. D. Baker-Carr, a former instructor at the pre-war Musketry School at Hythe, to join the 7th Division staff in order form a school to train new machine-gunners.¹¹⁹ Baker-Carr then suggested to GHQ staff that the school of instruction be available to all divisions and the GHQ Machine-Gun School – which trained tens of thousands of machine-gunners and provided the basis of the Machine-Gun Corps – was born.¹²⁰ As the 1915 campaign progressed the use of training schools became one of the most prominent and effective means of disseminating new knowledge across particular areas of the BEF.

Speaking shortly after his elevation to commander-in-chief in December 1915, General Sir Douglas Haig opined that 'schools of instruction constitute [the] natural means of passing on new ideas' across his force.¹²¹ Training schools existed at a number of different levels of command in the 1915 campaign. At the highest level – central control from GHQ – the most influential training unit was, from November 1914, Baker-Carr's Machine-Gun School, although other schools teaching bayonet fighting and anti-aircraft

¹¹⁸ Robbins, *British Generalship on the Western Front*, 136.

¹¹⁹ Brigadier-General C. D. Baker-Carr, *From Chauffeur to Brigadier* (London, 1930), 69.

¹²⁰ Baker-Carr, *From Chauffeur to Brigadier*, 74.

¹²¹ NLS, Haig Papers, Acc.3155/104, Typescript Diary, Lieutenant-General Sir Launcelot Kiggell, 'Notes from Conference of 19th February 1916', 21 February 1916.

gunnery were also formed by GHQ, albeit on a smaller scale.¹²² The development of army-level schools of instruction has been credited to Lieutenant-General Sir Charles Monro, who, according to Colonel Kentish, the first commanding officer of the Third Army School of Instruction, ‘first originated the idea’ of a dedicated army-level school.¹²³ Rather than relying on a formal syllabus, the Third Army School of Instruction rejected official textbooks and training manuals in favour of general and specific discussions based on the experiences of the officers present.¹²⁴ The school concentrated on providing basic advice to junior officers, particularly those recently arrived from home, on all manner of offensive and defensive arrangements in trench warfare and assumed no prior military knowledge among the attendees.¹²⁵

While the Third Army took the lead in disseminating new knowledge through an officer training school, the First Army was the first formation to transfer technical knowledge through the creation of a school which concentrated on bombing, both in the form of using hand-held grenades and the larger experimental trench mortars. Under the command of Captain Crowe of the Royal Field Artillery (RFA), a house and garden in St Venant were commandeered and ‘fitted up for lectures and instruction’ in the firing of trench mortars which itself took place at a ‘test site’ a mile distant under the control of nine officers and ninety other ranks of the Royal Garrison Artillery (RGA).¹²⁶ However, in the First Army, the normal system for schools of instruction, prior to October 1915,

¹²² Robbins, *British Generalship on the Western Front*, 90.

¹²³ Brigadier-General Kentish, quoted in Robbins, *British Generalship on the Western Front*, 90.

¹²⁴ Bernard Adams, *Nothing of Importance: 8 Months at the Front with a Welsh Battalion* (London, 1917), 75-7.

¹²⁵ Adams, *Nothing of Importance*, 80.

¹²⁶ NLS, Haig Papers, Acc.3155/100, Typescript Diary, 4, 20 April 1915.

was for formal training to be the responsibility of the various corps then attached to that army.¹²⁷ While GHQ maintained responsibility for the training of machine-gun personnel, the training in bombing and the use of trench mortars was under the control of the individual armies, and instruction on signalling and sniping was conducted at corps schools, each of which adopted a different methodology. This highlights the problems over the responsibility of training and is a reason for the lack of uniformity of approach which characterised the First Army, and the wider BEF's, approach to the dissemination of knowledge in the wider 1915 campaign.

There also existed conflicting opinions over who should be taught in the GHQ, army and corps schools. On visiting the Third Army School of Instruction in December 1915, Haig noted that while 'valuable work was being done', Colonel Kentish 'was not very clear as to the "objective" of his instruction'.¹²⁸ Kentish had attempted to train as many people as possible and, towards the end of 1915, a hundred officers and another hundred NCOs were passing through the Third Army School of Instruction each month.¹²⁹ Rather than adopting a similar approach in the First Army, Haig was of the opinion that the 'first essential' of training provision in the First Army was to create schools which focused on training instructors who would then be detached to train others at subordinate units and formations.¹³⁰ For Haig, new knowledge and new methods were more efficiently disseminated across his formation by cascade training rather than adopting a

¹²⁷ Major H. Hesketh-Prichard, *Sniping in France: with notes on the scientific training of scouts, observers and snipers* (London, 1920), 68.

¹²⁸ NLS, Haig Papers, Acc.3155/104, Typescript Diary, 23 December 1915.

¹²⁹ NLS, Haig Papers, Acc.3155/104, Typescript Diary, 23 December 1915.

¹³⁰ NLS, Haig Papers, Acc.3155/104, Typescript Diary, 18 November 1915; TNA, WO95/160, Sir Richard Butler, 'First Army, 1915 - Instructions for Training', 10 November 1915.

blanket 'train all' approach. Haig's system seemed to be the more effective, at least in terms of the training of snipers, as the First Army produced three times as many snipers from lower-level schools than the other armies did in the same period at the end of 1915 from their army level schools.¹³¹ In a memorandum of 10 November, three days after Haig spoke at a large First Army training conference, his chief-of-staff, Sir Richard Butler, outlined the approach to be taken in training the units of the First Army in preparation for the 1916 campaign.¹³² The First Army war managers asserted that the division, as the 'real battle unit', was to take charge of the formal training of its constituent parts through the formation of specialist schools which would 'impart rapidly and widely a knowledge of new methods, and to ensure the uniformity of principle and uniformity of employment'.¹³³

Butler's memorandum suggested that specialist schools should be established and run by each infantry division in the First Army, under the control of the individual divisional commander who 'will inspire the unit with his personal energy and fighting spirit'.¹³⁴ It further noted that the instructors should draw on experiences gained in the battles of the 1915 campaign and should focus on the use of machine guns in the attack, the training of grenadiers and bombers, and the technical instruction and tactical handling of trench mortars. The individual divisions were given the choice of establishing one general

¹³¹ Hesketh-Pritchard, *Sniping in France*, 71.

¹³² TNA, WO95/160, First Army General Staff War Diary, Sir Richard Butler, 'First Army, 1915 - Instructions for Training', 10 November 1915.

¹³³ TNA, WO95/160, Sir Richard Butler, 'First Army, 1915 - Instructions for Training', 10 November 1915.

¹³⁴ TNA, WO95/160, Sir Richard Butler, 'First Army, 1915 - Instructions for Training', 10 November 1915.

training school or individual schools each dealing with a particular specialist area. Table 5.1 highlights the establishment of the divisional training schools in the First Army.

Table 5.1: Date of Establishment of Divisional Training Schools, First Army, 1915

Division	General School	Officers' School	Bombing School	Trench Mortar School	Signals School	Machine-Gun School
1 st	---	29 Nov	17 Oct	---	---	Before Dec.
2 nd	---	Jan 1916	Jan 1916	Jan 1916	Jan 1916	---
7 th	15 Dec	---	---	---	---	---
8 th	14 Nov	---	---	---	---	---
9 th	---	7 Nov	9 Oct	---	27 Dec	8 Oct
12 th	---	22 Nov	---	1 Dec	---	---
15 th	---	16 Dec	---	16 Nov	16 Dec	4 Oct
19 th	---	27 Nov	27 Nov	27 Nov	27 Nov	27 Nov
20 th	---	---	---	---	---	---
23 rd	---	1 Dec	8 Sep	---	---	---
33 rd	19 Dec	---	---	---	---	---
46 th	---	2 Dec	---	---	---	---
47 th	---	---	17 Oct	14 Nov	---	16 Nov
Guards	---	---	30 Oct	7 Nov	30 Nov	7 Nov
Lahore	---	---	28 May	---	---	25 Jun

Sources: TNA, War Office, WO95/1190, Guards Division General Staff War Diary; WO95/1229-30, 1st Division General Staff War Diary; WO95/1287-89, 2nd Division General Staff War Diary; WO95/1629-30, 7th Division General Staff War Diary; WO95/1673, 8th Division General Staff War Diary; WO95/1733-34, 9th Division General Staff War Diary; WO95/1822, 12th Division General Staff War Diary; WO95/1911-12, 15th Division General Staff War Diary; WO95/2052, 19th Division General Staff War Diary; WO95/2094-95, 20th Division General Staff War Diary; WO95/2167, 23rd Division General Staff War Diary; WO95/2405, 33rd Division General Staff War Diary; WO95/2662, 46th Division General Staff War Diary; WO95/2698-99, 47th Division General Staff War Diary; WO95/3912-14, Lahore Division General Staff War Diary.

Analysis of the dates of the establishment of divisional training schools reveals the different approaches formations took in the practical dissemination of new knowledge. While some formations, such as the 2nd, 15th, 19th and Guards Divisions chose to separate their instruction into individual specialist schools, others, including the 7th, 8th and 33rd Divisions, preferred to use one school to teach all subjects. The 46th Division also established one divisional school of instruction but chose to augment this with the creation of dedicated brigade schools in bombing, machine gunning, and engineering, the latter being run by specialist trainers attached from the division's Royal Engineers Field Companies.¹³⁵ While the creation of brigade schools can be seen as a means of decentralising control of training to a unit's 'natural leaders', in at least one instance – that of 44 Brigade in the 15th (Scottish) Division – brigade schools were established as a response to the lack of mission specific training given to units in England and the lack of a formal, top-down training programme available upon their arrival in France.¹³⁶ In the majority of divisions, the date of formation of schools of instruction occurred shortly after the issue of Butler's First Army training memorandum. In units where this occurs later, in December 1915 and January 1916, the establishment of schools happened on the units' first rest period out of the trenches following Butler's memorandum. For example, while the establishment of the 2nd Division schools in January 1916 suggests that the formation lagged behind in terms of creating a physical space for the

¹³⁵ TNA, WO95/2662, Forty-Sixth Division General Staff War Diary, 16 November 1915.

¹³⁶ TNA, WO95/160, First Army General Staff War Diary, Sir Richard Butler, 'First Army, 1915 - Instructions for Training', 10 November 1915; IWM, Wilkinson Papers, Doc.8035, Diary, 20 August 1915.

consideration of ideas and the dissemination of new knowledge, in reality the date was determined by the immediate conditions of trench warfare.

Some formations deviated further from the First Army recommendations; the Guards Division created a School of Explosives which encompassed both bombing and the use of trench mortars, while the 47th Division issued orders for the commencement of classes for the training of artillery and infantry telephonists together in order to ensure the closer cooperation of the arms in battle situations.¹³⁷ As Table 5.1 shows, the creation of divisional schools of instruction did not occur solely in response to Butler's memorandum. The 1st and 47th Divisions created bombing schools on 17 October, possibly as the result of a local IV Corps directive, and the 23rd Division began their own bombing school on 14 September after sending fifteen officers and fifty-six NCOs to a six-day course at the bombing school of the 27th Division, then attached to the III Corps.¹³⁸ The Lahore Division of the Indian Corps began their schools of instruction as early as 23 May, not as part of an order from above, but 'on the initiative of the C[ommander of] R[oyal] E[ngineers]'.¹³⁹ Indeed, in many cases, the formations of the Indian Corps were ahead of their British counterparts in terms of the establishment of formal systems of knowledge dissemination. Major Hesketh-Pritchard, an officer in the 40th Pathans Regiment of Indian cavalry, became the first British divisional sniping officer and inspired a system of sniper training schools in the Indian Corps from the

¹³⁷ TNA, WO95/1190, Guards Division General Staff War Diary, Cavan to XI Corps, 2 December 1915; TNA, WO95/2698, Forty-Seventh Division General Staff War Diary, 15 November 1915.

¹³⁸ TNA, WO95/2167, Twenty-Third Division General Staff War Diary, 8, 14 September 1915.

¹³⁹ TNA, WO95/3913, Lahore Division General Staff War Diary, 23 May 1915.

summer of 1915.¹⁴⁰ In contrast, at the same time Haig recommended that Bannatine-Allason of the 51st Division utilise the natural skills of the ‘stalkers’ from his highland infantry battalions to increase unit effectiveness, rather than arranging a formal programme of training soldiers in the technical art of sniping.¹⁴¹

The First Army memorandum, while setting out the necessities of specialist training, focused more explicitly on the training of junior officers. Butler ordered that each division should establish a school of instruction to train company and platoon commanders as well as newly arrived officers, in subjects including the principles of carrying out an attack, the development of an offensive spirit, the methods of increasing morale and discipline, and the handling of new weapons.¹⁴² The purpose of these schools was to ‘help our young and inexperienced officers to solve the various practical problems that face them day to day’.¹⁴³ Rather than being training per se, the work of the Divisional Officers’ Schools saw the dissemination of new knowledge as part of a professional education in which ‘instances of the various fights which had actually taken place’ were studied and applied to develop the skills of officers as leaders.¹⁴⁴ There is an important distinction here; Storr noted that ‘training allows people to perform

¹⁴⁰ Morton-Jack, *Indian Army on the Western Front*, 211. See also, Hesketh-Pritchard, *Sniping in France*.

¹⁴¹ NLS, Haig Papers, Acc.3155/101, Typescript Diary, 20 May 1915.

¹⁴² TNA, WO95/160, First Army General Staff War Diary, Sir Richard Butler, ‘First Army, 1915 - Instructions for Training’, 10 November 1915.

¹⁴³ TNA, WO95/1734, Ninth Division General Staff War Diary, 7 November 1915.

¹⁴⁴ TNA, WO95/160, First Army General Staff War Diary, Sir Richard Butler, ‘First Army, 1915 - Instructions for Training’, 10 November 1915.

difficult tasks with ease, whilst education allows them to mentally reduce complex problems to simple ones'.¹⁴⁵

The need to address the lack of a system for fostering the professional development of young officers was brought about by the high casualty rate in the First Army in the campaign. As Haig wrote to his wife in October, some elements of the army lacked 'junior officers with some tactical knowledge and training to act on the spot at the right moment'.¹⁴⁶ The Battle of Loos had demonstrated that in large-scale offensive operations officer casualties represented a serious problem for overall unit cohesion and its wider command and control mechanism; in three days' fighting, the 9th Division lost eight out of its twelve battalion commanders.¹⁴⁷ As a result, the formalised training of young officers in divisional schools of instruction aimed at disseminating not only the knowledge which was crucial for officers to do their own jobs, but promoted the training of 'understudies' for 'duties of a higher grade' which they might need to use early in an engagement.¹⁴⁸ Furthermore, experiences such as that of the 4th Cameron Highlanders at Festubert highlighted the need for NCOs to also know the duties of junior officers. In that instance, all officers of the battalion's 'D' Company were killed or wounded early in the advance, leaving CSM James Stott in charge of the company. When he too was killed, the system of command disintegrated and no further progress was made.¹⁴⁹ To counter this eventuality, the First Army memorandum emphasised the need to

¹⁴⁵ Storr, *Human Face of War*, 53.

¹⁴⁶ NLS, Haig Papers, MS.28006, Haig to Lady Haig, 14 October 1915.

¹⁴⁷ Ewing, *Ninth Division*, 61.

¹⁴⁸ TNA, WO95/160, First Army General Staff War Diary, Sir Richard Butler, 'First Army, 1915 - Instructions for Training', 10 November 1915.

¹⁴⁹ Watt, *Steel & Tartan*, 67.

incorporate the practical training of NCOs in platoon leadership into the training conducted in divisional officers' schools.¹⁵⁰

Aimee Fox-Godden asserted that the establishment of training schools represented a 'people-to-documents' method of knowledge dissemination as the official CDS and SS pamphlets provided the basis for instruction.¹⁵¹ In the majority of cases, the curricula of the Divisional Officers' Schools have been lost or never recorded. However, the curriculum of the 9th Division Officers' School has been found and it demonstrates the importance of informal 'people-to-people' methods of knowledge dissemination in the 1915 campaign. Each day at the 9th Division school was split into a number of lectures each presented by a subject expert. The first running of the course, in November 1915, saw Captain Boys of the Royal Garrison Artillery present papers on the use of trench mortars in the attack; the Divisional Assistant Adjutant General (DAAG) presented a paper on discipline; Lieutenant-Colonel Hollond, the senior staff officer with the division, lectured on tactics in the attack; and the Royal Artillery brigade major lectured on the importance of artillery and infantry cooperation.¹⁵² Further papers were presented by the commander of the Divisional Train, the Commander of Royal Engineers, and by officers of the divisional Royal Army Medical Corps personnel and Tunnelling Company. While the majority of knowledge-transfer was conducted through lectures, each class at the school also made a number of visits to other parts of the division in

¹⁵⁰ TNA, WO95/160, First Army General Staff War Diary, Sir Richard Butler, 'First Army, 1915 - Instructions for Training', 10 November 1915.

¹⁵¹ Fox-Godden, 'Beyond the Western Front', 199.

¹⁵² TNA, WO95/1734, Ninth Division General Staff War Diary, 'Officers School - Programme of Lectures', 15 November 1915.

order to gain a greater understanding of how the wider divisional organisation functioned and to foster relationships and cooperation between the different branches. In November 1915, training classes visited the divisional Royal Engineers' workshops to examine how bombs were constructed, the Royal Field Artillery batteries to watch artillery demonstrations, the divisional Motor Machine-Gun Battery to understand the role of the machine gun in the attack, and finally the 9th Division Grenade School.¹⁵³ That the training syllabus for the divisional officers' schools was based on the experience of the individuals involved rather than using a centrally distributed training manual suggests that Fox-Godden's classification of schools of instruction as a 'people-to-documents' method of knowledge dissemination is not fully applicable for the First Army in the 1915 campaign.

The dissemination of knowledge through the training and education of the officers and men of the First Army was, however, hampered by a number of constraints. These can be split into four main categories: time, space, personnel, and equipment. For the first nine months of the 1915 campaign, formations were not removed from the front trench line for a long enough period to undertake meaningful large-scale training. Even for regular formations the lack of a period of combined training prior to deployment to the war theatre left them feeling like 'a mere agglomeration of units' rather than cohesive fighting divisions.¹⁵⁴ Indeed, the 7th Division was not given any time out of the line to rest and train as a complete unit between its arrival in France in October 1914 and the

¹⁵³ TNA, WO95/1734, Ninth Division General Staff War Diary, 'Visits by Officers of 9th Division Officers' School', 15 November 1915.

¹⁵⁴ Boraston and Bax, *Eighth Division*, 1.

Battle of Loos in September 1915.¹⁵⁵ Inclement weather further affected the training provision of the units of the First Army by reducing the number of days that formations could train outdoors. The 51st Division noted, during their instructional period in England, that training during the month of December 1914 had been ‘considerably hampered by bad weather and the bad state of the country’ and in March, the training programme had been ‘much interfered with’ by the constant rain.¹⁵⁶ Also in France, divisional training was either cancelled or suspended because of the weather; the 47th Division reported that their ‘outdoor work [was] very much hampered by bad weather’ in December and a practice ‘problematic attack’ by the 12th Division was cancelled prior to rehearsal due to the weather.¹⁵⁷ The training of units was further inhibited by the need to provide working parties for trench building during their nominal periods of rest. The 4th Cameron Highlanders, for example, were withdrawn from the front lines for a week’s training in July 1915 but still had to supply working parties of six officers and 300 men every night out of a battalion strength of little over 600 men.¹⁵⁸ Similarly, the staff officers of the 15th Division found that the need for each battalion to supply 300–350 men per night affected their ‘ability to train as a unit’ and prevented them from sending many men to the schools of instruction.¹⁵⁹ In October the First Army adopted a formal ‘winter policy’ in which it was decided that general offensive actions would need to be halted until the spring and, instead, small, aggressive trench raids would be

¹⁵⁵ Atkinson, *Seventh Division*, 109-98.

¹⁵⁶ TNA, WO95/2844, Fifty-First Division General Staff War Diary, Major-General Bannatine-Allason to First Army, January and March 1915.

¹⁵⁷ TNA, WO95/2699, Forty-Seventh Division General Staff War Diary, 11 December 1915; Scott and Brumwell, *History of the 12th (Eastern) Division*, 27.

¹⁵⁸ TNA, WO95/1659, 4th Cameron Highlanders War Diary, 25–30 July 1915.

¹⁵⁹ Stewart and Buchan, *Fifteenth Division*, 54.

conducted along the front to gain intelligence, give British divisions time out of the trenches, demoralise the enemy and give new troops battle-like experience. Only following the establishment of this policy were divisions able to find time out of the line to train as a whole unit. In the IV Corps sector, the policy was for two of the corps' three divisions to hold the line while the third completed a month's training programme behind the lines. This concerted period out of the lines represented a 'valuable piece of training' for the 47th Division; the 9th Division 'reaped the benefits' of their time out of the line; and the prolonged training of 44 Brigade 'did a lot of good' in assimilating new soldiers into the unit.¹⁶⁰

Once formations were given time out of the line to train, the question of where to do so remained unanswered. While training in England, the 51st Division were forced to keep to the roads rather than exercise in open countryside as farmers did not want their new crops destroyed.¹⁶¹ A similar situation existed in France where Brigadier-General Cecil Lowther, GOC of 1 Brigade, 'rode all around the area' in search of ground on which to train his men in their rest period prior to the Battle of Neuve Chapelle, but found 'very little available' as the crops were beginning to emerge in agricultural areas.¹⁶² Short of a formal training ground, Lieutenant Hugh Munro of the 8th Argyll and Sutherland Highlanders, rehearsed his platoon in occupying a trench by night 'in the field adjoining

¹⁶⁰ Maude, *47th (London) Division*, 44; Ewing, *Ninth Division*, 74; IWM, Wilkinson Papers, Doc.8035, Diary, 2 January 1916.

¹⁶¹ TNA, WO95/2844, Fifty-First Division General Staff War Diary, Major-General Bannatine-Allason to First Army, March 1915.

¹⁶² IWM, Lowther Papers, Doc.6388, Diary, 2 February 1915.

the farm' in which his unit was billeted.¹⁶³ Even when a physical space was available problems arose; the general staff of the Lahore Division had to secure the permission of the local mayor to use nearby rifle ranges for practice musketry.¹⁶⁴ While the creation of the schools of instruction did provide a dedicated area for the theoretical and small-scale practical training to take place, it made little provision for the large-scale training of the divisions as complete units which was required for successful offensive operations. Haig appears to have identified this problem shortly after assuming command of the BEF in December. At a conference of army commanders in January, he ordered that each army should have a training area in the rear of its area of operations where two or more divisions could be exercised in large-scale attacks using replica trenches.¹⁶⁵ Over the course of the 1915 campaign, the importance of a physical space not only in which knowledge could be disseminated but could be put into practice was realised by the war managers and tentative steps were taken to rectify the problem.

Finally, once time and space had been secured, further problems existed in the provision of training equipment and personnel. In the Lahore Division, the divisional trench mortar batteries struggled to maintain their full complement of men as they either quickly became casualties or were promoted to be instructors on the completion of their training.¹⁶⁶ The high turnover of personnel not only affected unit cohesion, it reduced

¹⁶³ National Library of Scotland, Letters of Captain Hugh A. Munro, MS.26930, Munro to Anon., 28 May 1915.

¹⁶⁴ TNA, WO95/3913, Lahore Division General Staff War Diary, 10 July 1915.

¹⁶⁵ NLS, Haig Papers, Acc.3155/104, Typescript Diary, 24 January 1916 and Launcelot Kiggell, 'Notes of a Conference of Army Commanders held by the General, Commanding-in-Chief, at Third Army Headquarters, Beauquesne, at 11am on 24th January 1916'.

¹⁶⁶ TNA, WO95/3913, Lahore Division General Staff War Diary, 13 June 1915.

the effectiveness of the batteries as offensive weapons in their own right. The highly experimental nature of the technological adaptation to trench warfare meant that casualties were often incurred by inexperienced soldiers while training; on 12 July, three men of the 9th Division were injured during training when a bomb fell from a catapult and exploded.¹⁶⁷ Furthermore, a programme of practice bombing undertaken by 2 Brigade in August had to be scrapped after two accidents caused the death of one man and the wounding of an officer and three men when faulty fuses caused the bombs to explode instantaneously.¹⁶⁸ While these instances had no real knock-on effects, others within the First Army did. On 1 April, Major-General Sir Thompson Capper, GOC of the 7th Division, was wounded by bomb fragments while watching a practice bombing attack, resulting in his removal from divisional command until August.¹⁶⁹ On their arrival in France the 9th Division established their own *ad hoc* bomb-making facility at Nieppe which was blown up in an accident four days later, wounding all of the officers and men of 90 Field Company, Royal Engineers who were administering it.¹⁷⁰ This not only reduced the effectiveness of the RE company but also removed all personnel from the 9th Division who were trained to make bombs.

This latter example highlights the problem regarding the supply of equipment and personnel. The 9th Division was forced to establish its own bomb factory 'owing to there being practically no government issue of bombs available' in France in May

¹⁶⁷ TNA, WO95/1733, Ninth Division General Staff War Diary, 12 July 1915.

¹⁶⁸ TNA, WO95/1267, 2 Infantry Brigade General Staff War Diary, 1-5 August 1915.

¹⁶⁹ NLS, Haig Papers, Acc.3155/101, Typescript Diary, 1, 4 April 1915.

¹⁷⁰ TNA, WO95/1744, Ninth Division Assistant Adjutant and Quartermaster General's War Diary, 22-26 May 1915.

1915.¹⁷¹ It was a similar story for units training in England. The 15th Division had received little in the way of instruction in bombing prior to their departure for France due to the difficulties in supplying the troops in France and those training in England.¹⁷² The supply of rifles had hampered the training of the New Army divisions which joined the First Army from mid-1915 onwards and formations were forced to make do with replicas until actual rifles were available; as late as July 1915 some units training in England had only eighty rifles for a battalion of a thousand men.¹⁷³ Similarly, the machine-gun officer of the 11th Argyll and Sutherland Highlanders, trained his men using wooden replica guns until actual weapons were made available the month prior to the battalion's departure for France and the artillery units made a 'dummy gun' out of a pine log mounted on a funeral carriage.¹⁷⁴ By July 1915, the production of bombs for training purposes had picked up, and the Lahore Division was being supplied with 1,500 bombs per week to use for practice attacks, and the battalions at rest in the 9th Division were given 'a practically unlimited supply of bombs' for training purposes.¹⁷⁵ Later in the campaign, the available equipment had increased again with 2 (Guards) Brigade able to expend 9,000 bombs during an attack on the Hohenzollern Redoubt.¹⁷⁶ The availability of equipment with which to train affected the practical instruction of the

¹⁷¹ TNA, WO95/1744, Ninth Division Assistant Adjutant and Quartermaster General's War Diary, 22 May 1915.

¹⁷² Stewart and Buchan, *Fifteenth Division*, quoted in IWM, Wilkinson Papers, Doc.8035, Scrapbook, insert at page 31.

¹⁷³ IWM, Wilson Papers, Doc.2040 - HH2/73/76, Sir Charles Hunter to Sir Henry Wilson, 21 November 1914; IWM, Wilson Papers, Doc.2040 - HH2/77/15, Sir Charles Hunter to Sir Henry Wilson, 18 July 1915.

¹⁷⁴ IWM, Private Papers of Lieutenant-Colonel Gavin Laurie Wilson, Doc.15017, Biography, 7; Buchan and Stewart, *Fifteenth Division*, 14.

¹⁷⁵ TNA, WO95/3913, Lahore Division General Staff War Diary, 29 July 1915; TNA, WO95/1733, Ninth Division General Staff War Diary, 17 July 1915.

¹⁷⁶ NLS, Haig Papers, Acc.3155/103, Typescript Diary, 8 October 1915.

formations of the First Army particularly in the early months of the campaign. However, as the campaign progressed, the increased provision of equipment and the greater number of instructors meant that the practical training became a more effective means of disseminating new knowledge.

Informal Knowledge-Transfer

While the use of official publications and training schools were important methods of knowledge-transfer, the war managers of the First Army also sought to share knowledge on an informal basis, through secondments, attachments and what is termed in organisational learning theory as ‘on-the-job training’.¹⁷⁷ Catignani’s study of the British Army in Afghanistan highlighted the importance of informal networks in the dissemination of new knowledge and asserted that they play a crucial role in affecting battlefield adaptation.¹⁷⁸ In terms of the British Army in the Great War, Foley showed that the BEF war managers made good use of ‘non-formal methods of learning’ throughout the war, particularly focussing on the incorporation of subject experts from outwith the armed forces into the war management training establishment.¹⁷⁹ Fox-Godden drew a similar conclusion and found that the army both tolerated and exploited the use of pre-existing social networks to enhance the organisation’s learning potential.¹⁸⁰ This section examines how the First Army’s war managers made use of

¹⁷⁷ Karen Lawson, *Improving On-the-Job Training and Coaching* (Alexandria, VA, 1997), 1-2.

¹⁷⁸ Catignani, ‘Coping with Knowledge’, 30-9.

¹⁷⁹ Foley, ‘Dumb Donkeys’, 291-6.

¹⁸⁰ Fox-Godden, ‘Beyond the Western Front’, 203-10.

informal methods of knowledge-transfer to exchange new information on the conduct of war in the 1915 campaign.

The first system of informal knowledge-transfer used by units of the First Army involved what can be described as ‘job-shadowing’. In organisational learning terms, this process involves ‘the learner accompanying the job holder throughout their normal working activity and observing the processes involved’, so that the learner can witness first hand the role which they will take over.¹⁸¹ In the context of the 1915 campaign, newly arrived formations, who were to be incorporated into the First Army structure, and experienced formations occupied the roles of ‘the learner’ and ‘the job holder’, respectively. The practice adopted in the BEF was for divisions of the New Army, then training in England, to send representatives to France for a short period of job-shadowing to ‘see life in the trenches’.¹⁸² Brigadier-General Montagu Wilkinson of 44 Brigade and his brigade major ‘went on a joy-ride’ to France where they were attached to the headquarters of a brigade of the 6th Division. For Wilkinson, the trip was a ‘most interesting experience’ which involved being billeted at the front, visiting a Royal Artillery battery, undertaking a night-time tour of the trenches and viewing significant positions in the German lines at Messines and Mount Kemmel.¹⁸³ Later, battalion commanders of the New Army divisions still at home were also offered the opportunity to job-shadow experienced officers in France and the commanding officer of the 7th

¹⁸¹ Richard Barrett, *Training, Developing and Motivating People* (Cheltenham, 2003), 24.

¹⁸² IWM, Wilkinson Papers, Doc.8035, Scrapbook, entry for 21 March 1915.

¹⁸³ IWM, Wilkinson Papers, Doc.8035, Scrapbook, entry for 21 March 1915.

King's Own Scottish Borderers returned from France 'with Army Books 136 [standard issue notebooks] filled to overflowing' with practical experiences from the front.¹⁸⁴

When formations themselves arrived in France each was posted to a corps with the view of shadowing the work of an experienced division. The 9th Division was initially trained by the same units of the 6th Division which the officers had visited in March, with infantry battalions, engineer companies and artillery batteries each shadowing their respective 'job holders'.¹⁸⁵ Similarly, the units of the 15th Division were sent by companies into the front line trenches to learn from the battalions of 142 Brigade of the 47th London Division between 20 July and 1 August 1915. The job-shadowing was found to be a particularly useful means of acclimatising to trench warfare conditions and the men of the 6th Cameron Highlanders learned much from the 'experienced territorial regiment' who were responsible for their instruction.¹⁸⁶ The staff of the 9th Black Watch thought that in this period 'much useful knowledge of trench warfare was gained' from the 47th Division personnel.¹⁸⁷ Lieutenant Cecil Harper found that 'that there was much to be learned which was new to us', but the instruction by the 47th Division taught the men of the 10th Gordon Highlanders 'the tricks of the trade'.¹⁸⁸ Lieutenant Archie Gilmour of the 7th King's Own Scottish Borderers found that his 'trial visit' to the front

¹⁸⁴ Goss, *Border Battalion*, 12.

¹⁸⁵ TNA, WO95/1373, Ninth Division General Staff War Diary, 18 May 1915.

¹⁸⁶ Glasgow University Special Collections Department, Papers of the 6th Cameron Highlanders Reunion Club [Afterwards, GUSCD, Reunion Club Papers], MS GEN 1376/7, Diary of Private James Campbell, 21 July 1915.

¹⁸⁷ Major-General A. G. Wauchope, *A History of the Black Watch [Royal Highlanders] in the Great War, 1914–1918*, Vol.3 (London, 1926), 117. Cameron of Lochiel, the CO of the 5th Cameron Highlanders also participated in this trip, see McEwen, *Fifth Camerons*, 62.

¹⁸⁸ IWM, Private Papers of Lieutenant C G Harper [afterwards IWM, Harper Papers], Doc.7593, Memoir, 29.

line helped to ‘disperse one or two illusions’ of trench warfare and 2nd Lieutenant Reggie Hutt of the 6th Royal Scots Fusiliers, was ‘told and shown everything worth while’ by a platoon commander of the 1st North Staffordshire Regiment.¹⁸⁹ As Harper noted following his initial experiences of the trenches, the men ‘learned eagerly all they could about the routine and peculiarities of trench warfare’ because they had ‘received scanty preparation’ for the realities of conditions at the front during their training in England.¹⁹⁰ In this, the informal, people-to-people knowledge dissemination which took place during the initial period of instruction in the trenches represented an *ad hoc* solution to an identified gap in knowledge. This, itself, originated because of the lack of a formal structure for transmitting mission-specific training based on experience gained at the front to units training for war in Britain.

The job-shadowing undertaken in the initial period of instruction in trench warfare, while viewed by one participant as a means of getting ‘more used to the smell of gunpowder’, also had the practical effect of informally disseminating knowledge not only of general trench warfare practices but of the specifics of holding a particular stretch of trenches.¹⁹¹ In this, the choice of ‘job holders’ to carry out the initial instruction was particularly important. In the early stages of the campaign, newly arrived battalions of the Territorial Force were posted to GHQ where they were given ‘some instruction’ prior to being sent to the front; however in the First Army, from

¹⁸⁹ IWM, Private Papers of Captain A. K. Gilmour, Doc.16973, Gilmour to Unknown, 26 July 1915; IWM, Private Papers of 2nd Lieutenant E. R. Hutt, Doc.328 [afterwards, IWM, Hutt Papers], Hutt to his parents, 21 May 1915.

¹⁹⁰ IWM, Harper Papers, Doc.7593, *Memoir*, 29.

¹⁹¹ IWM, Hutt Papers, Doc.328, Hutt to his mother, 15 May 1915.

February onwards, initial training was to be conducted by the corps to which the unit was to be attached.¹⁹² The initial period of trench instruction often took place in areas which were deemed peaceful sectors; members of the 6th Cameron Highlanders referred to the section in which they were trained as ‘a very quiet one’ in which a policy of ‘live and let live’ was adopted.¹⁹³ However, the policy of training the 6th Cameron Highlanders – and the rest of the 15th Division – in that particular sector had a more practical origin. The division was trained in the section of the IV Corps line over which they would attack on 25 September during the first day of the Battle of Loos. Their instruction had been conducted not only by the 47th Division but by elements of the 1st Division too, ‘in order to give a more varied experience in the methods of trench warfare’.¹⁹⁴ Officers from the 1st and 47th Division were instructed to inform their counterparts in the 15th Division as to the ‘exact topography’ of the sector, paying particular attention to ‘the details of the siting of the enemy’s trenches’, which the 15th Division would later attack.¹⁹⁵ In this manner mission-specific information was transferred informally from experienced to inexperienced units based on their own perceptions of the terrain and the enemy.

Job-shadowing was complemented by the temporary secondment of personnel away from their unit. Four Territorial Force battalions were attached to the the 1st and 2nd

¹⁹² TNA, WO95/591, I Corps General Staff War Diary, GHQ to First Army, 4 February 1915.

¹⁹³ GUSCD, Reunion Club Papers, MS GEN/1376/7, Diary of James Campbell, 21 July 1915; IWM, Christison Papers, Doc.4370, Memoir, 31-2.

¹⁹⁴ TNA, WO95/1911, Fifteenth Division General Staff War Diary, IV Corps to Divisions, 19 July 1915.

¹⁹⁵ TNA, WO95/1911, Fifteenth Division General Staff War Diary, IV Corps to Divisions, 19 July 1915.

Divisions in March to undergo their initial period of trench instruction.¹⁹⁶ After the period of job-shadowing, I Corps ordered Major-Generals Haking and Horne to complete formal reports stating their impression of the ability of the new units' commanding officers and regimental officers, the physique of the NCOs and men, and unit discipline and training, in order to assess the battalions' fitness for taking over part of the trench line.¹⁹⁷ Because the units were deemed not ready, 'a temporary interchange' of officers and non-commissioned officers took place, allowing officers from the new Territorial Force units to be attached to experienced brigades for specific instruction to correct problems 'not only in their method of giving orders, but to an even greater degree seeing that they are carried out'.¹⁹⁸ The experience 'gave excellent results'.¹⁹⁹ The process of seconding individuals or small groups to learn or teach specific tasks continued throughout the campaign: in August, small parties of the 23rd Division were attached to the 27th Division for a week to learn from the more experienced formation; the same month, three instructors from Sandhurst were attached to the Sirhind Brigade in the Lahore Division to supervise training; and in November officers of the Royal Engineers were attached to brigades of the 8th Division when training.²⁰⁰ At the end of the 1915 campaign, the policy of attaching individuals or small groups to other formations was formally adopted on a large scale. For example, 21

¹⁹⁶ They were the 5th, 7th and 9th King's (Liverpool Regiment) and the 5th Royal Sussex.

¹⁹⁷ TNA, WO95/589, I Corps General Staff War Diary, I Corps to 1st and 2nd Divisions, 19 March 1915.

¹⁹⁸ TNA, WO95/589, I Corps General Staff War Diary, I Corps to 1st and 2nd Divisions, 8 February 1915.

¹⁹⁹ TNA, WO95/589, I Corps General Staff War Diary, I Corps to 1st and 2nd Divisions, 8 February 1915.

²⁰⁰ TNA, WO95/2167, 23rd Division General Staff War Diary, 8 September 1915; TNA, WO95/3913, Lahore Division General Staff War Diary; TNA, WO95/1673, Eighth Division General Staff War Diary, November 1915.

Brigade was removed from the 7th Division on 20 December 1915 and was replaced by 91 Brigade of the 30th Division, recently arrived from home. Similarly, in the 8th Division, the experienced 24 Brigade was transferred to the 23rd Division and was replaced by 70 Brigade. While the change of structure in the 7th Division was permanent, that in the 8th Division was not and 24 Brigade returned to the 8th Division in July 1916.²⁰¹ As the 1915 campaign progressed the benefits of a ‘temporary interchange’ of personnel between experienced and inexperienced formations became clear. What began as an informal means of transferring local knowledge developed, by late-1915, into a force-wide system of knowledge dissemination.

Units undergoing training in England also benefitted from the attachment of officers who had experience of conditions at the front. In the 9th Division, lectures by officers recently returned home from France ‘were followed with the closest attention’, particularly with respect to the construction of trenches.²⁰² At Aldershot, Captain R. N. Stewart, who had spent five months serving at the front with the 1st Cameron Highlanders in 1914 before being sent home wounded provided ‘invaluable assistance’ in imparting knowledge of the realities of the war.²⁰³ During Stewart’s attachment to ‘C’ Company of the 5th Camerons, all questions regarding trench warfare were directed to him and he was ‘reverently listened to’.²⁰⁴ On Stewart’s return to the 1st Camerons his place in the 5th Camerons was taken by Captain J. B. Black, who had also been

²⁰¹ Archibald Frank Becke, *Order of Battle of Divisions: Part 1 - The Regular British Divisions* (London, 1935), 81-96.

²⁰² Ewing, *Ninth Division*, 10.

²⁰³ McEwen, *Fifth Camerons*, 58.

²⁰⁴ McEwen, *Fifth Camerons*, 58.

home recuperating from wounds received in France. Thus the cycle of attaching experienced officers to new units continued. Similarly, Lieutenant-Colonel J. W. Sandilands was placed in command of the 7th Cameron Highlanders prior to their departure for France as part of the 15th Division, as 'he had the advantage of already being out at the Front' and transferred his knowledge to the new battalion.²⁰⁵ The informal dissemination of knowledge through secondments, attachments and on-the-job training represented an important source of information sharing at the front and acted as an informal conduit for the flow of information from the front to units training in Britain

Conclusion

This chapter has demonstrated how the dissemination of new knowledge occurred in the First Army in the 1915 campaign. In doing so, it added a further, final layer to the Organisational Development Model. The dissemination of new knowledge is, above all, the crucial stage of organisational development. Without the transfer of identified and accepted lessons from individuals with knowledge to those without, it cannot be said that true learning at the organisational level has taken place. As Lieutenant-General Sir Ivor Maxse noted, 'books, circulars, schools, lectures, all abound in profusion. But unless they are applied with the knowledge of men and in a practical manner, they do not produce trained formations'.²⁰⁶ Only once new knowledge is accepted, disseminated and has become the new normal can it be said that lessons have been learned. This

²⁰⁵ Colonel J. W. Sandilands and Lieutenant-Colonel Norman MacLeod, *The History of the 7th Battalion, Queen's Own Cameron Highlanders* (Stirling, 1922), 24.

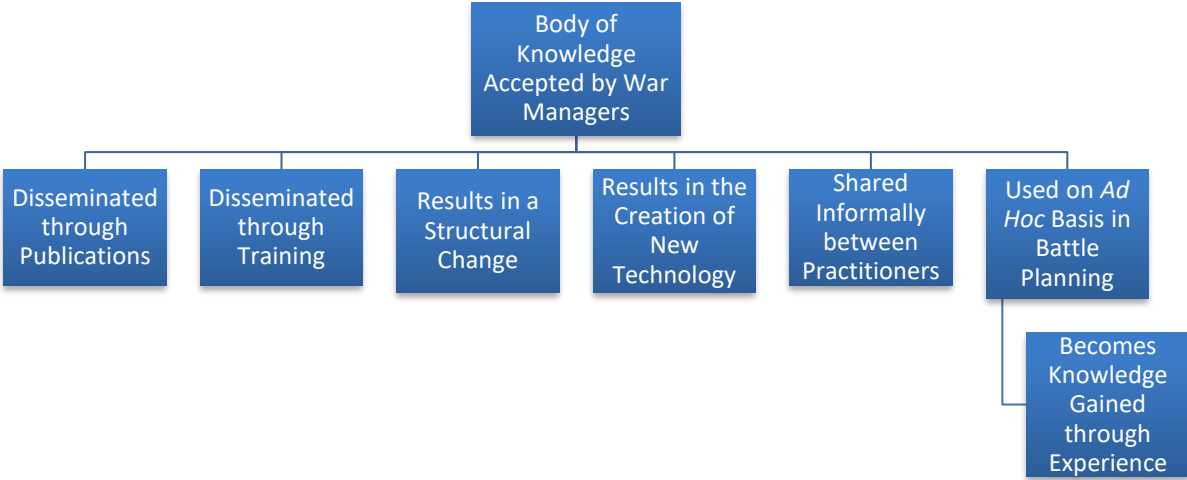
²⁰⁶ IWM, Maxse Papers, Doc.3255, 'Undated note to a member of the Court of Inquiry', quoted in French, 'The 51st (Highland) Division During the Great War', 49.

chapter identified three methods in which new knowledge was disseminated and institutionalised in the First Army during as a result of the 1915 campaign on the western front which can now be added to the Organisational Development Model.

In the first place, new knowledge which had been identified and accepted by war managers was codified as formal doctrine and shared across the institution. Running alongside this was the informal transfer of new written knowledge in the form of ‘best-practice’ guidelines which was often shared horizontally across same-level formations rather than through the rigid army hierarchal structure. Second, new knowledge based on experience was incorporated into the formal and informal training and education of units and formations of the First Army. While this began on an informal basis, events on the ground – particularly the high casualty rate – promoted the formalisation of training provisions. This was particularly evident in the creation of formation schools of instruction. While some divisions had been proactive in establishing local training centres, the First Army memorandum of 7 November, which set out the training provision for the coming winter, proved to be the catalyst for more wholesale change, although the lack of specific direction from above meant that the uniform approach advocated by Haig was not achieved in the 1915 campaign. Finally, new knowledge was transferred from experienced individuals and formations to the inexperienced by informal methods. Of particular importance here was the policy of ‘job-shadowing’ by which general and specific knowledge was passed between formations. While these methods were crucial to the dissemination and institutionalisation of lessons learned, it is also important to note that they took time to materialise – four months in the case of

doctrine production in the First Army. The necessity of fighting a war of this scale meant that while accepted lessons were disseminated in the long-term, in the short-term they were simultaneously incorporated into the First Army’s organisational memory and used on an *ad hoc* basis. In this, the Organisational Development Model becomes a cycle; lessons which have been accepted become part of the war managers ‘knowledge gained through experience’. The three means of knowledge dissemination and institutionalisation join the creation of a new piece of technology and a change in institutional structure – identified in chapter three – as outcomes of the institutional learning process. These outcomes are presented in Figure 5.2.

Figure 5.2: Knowledge Dissemination in the Organisational Development Model



This chapter set out to address four questions. First, it has been shown that the First Army war managers attached increasing importance to the dissemination of new knowledge as the campaign progressed. While the use of written doctrine as a means of disseminating information did not realise its full potential until after the creation of the Training Branch in February 1917, it was already an effective means of transmitting information, particularly at the tactical level through the CDS and SS series publications. That war managers met to consider the creation of new doctrine in November 1915 suggests the tacit acceptance of the importance of pamphlets and publications in disseminating new knowledge. Similarly, Haig's insistence on the creation of divisional and local schools of instruction, which formalised the First Army's training provision, gives weight to the assertion that as the campaign progressed, First Army war managers placed greater importance on the transfer of new knowledge. Second, the mechanism for training changed markedly over the course of the campaign. While the training of the new armies and Territorial Force in Britain was general in nature and often inadequate, in France greater importance was attached to mission-specific training and education as the campaign progressed. Again, this is best demonstrated through the establishment of schools of instruction and the provision of time, space, equipment and personnel, all of which increased from October 1915 onwards. Third, one of the key deficiencies of the BEF's processes of knowledge dissemination was the lack of joined-up thinking between provision at the front and at home. War managers were aware of the deficiencies of the reliance on pre-war training manuals – as Haig's comments to Bannatine-Allason show – yet no attempts were made to rectify the situation. While a lack of equipment and the need to rapidly reinforce the BEF in France offers some

mitigation, a system for transmitting mission-specific training could have been created in 1915 using the attachment of personnel which later developed informally at the regimental level. Finally, in the 1915 campaign, war managers did attempt to incorporate lessons which they had identified into both their training provision and operational doctrine albeit the standard, method and pace of these efforts differed across formations. The key problem affecting the dissemination of knowledge across the First Army, and indeed the key problem inhibiting successful organisational development, was the lack of a formal system for transmitting mission-specific information on a force-wide scale.

Chapter Six

The Legacy of Learning from the 1915 Campaign

I saw plenty of attacks later – very many. I never saw one worse prepared than [Loos], bar one, at Fromelles...in 1916, again run by XI Corps, again without proper artillery preparation. Also again an attack where all details were ordered direct from Corps Headquarters for new and untrained and inexperienced divisions.¹

Lieutenant-Colonel Cosmo Stewart

The 1916 campaign on the western front saw the focus of the BEF turn from the plains of the Artois region on the Franco-Belgian border to the rolling hills of Picardy, a hundred kilometres to the south. Many officers who had gained experience of battle planning with the First Army – Haig and Rawlinson, in particular – were promoted at the end of 1915 and played prominent roles in the planning of the Somme offensive. The Battle of the Somme, which began on 1 July and lasted until 18 November 1916, was, for the British, ‘the greatest military tragedy of the twentieth century’; in total 419,654 British soldiers were killed or wounded, 56,886 on the first day of the battle, alone.² These attacks were, however, not undertaken by the First Army, which remained in the same vicinity as in the 1915 campaign. While the location of the First Army stayed the same, the role it undertook changed from that of the year before. Instead of undertaking sustained offensive actions, the First Army, now under the command of Lieutenant-General Sir Charles Monro, was tasked with holding the trench line, organising raids of the German positions and, in July 1916, conducting a diversionary

¹ TNA, CAB45/121, Brigadier-General Cosmo Stewart to Major-General Sir James Edmonds, 30 November 1927.

² Keegan, *First World War*, 321; William Philpott, *Attrition: Fighting the First World War* (London, 2014), 236.

attack on the village of Fromelles. That attack, which failed with over 7,000 casualties, has been described as being ‘a remarkable story of blundering in the planning process’, the result of which was ‘a bloody holocaust’.³ If results are taken an indicator of organisational development then it would appear that the First Army learned little from its experiences in 1915.

This chapter examines the extent to which the First Army and its war managers were able to implement the lessons of the 1915 campaign in their subsequent operations. It is split into two sections. The first section examines the institutional learning process of the First Army by studying how it planned its next offensive action – the Battle of Fromelles in July 1916. Analysis of five key elements of the planning process offers a useful indication of the extent to which the First Army war managers were willing or able to incorporate the lessons of the 1915 campaign into their subsequent planning process. The second section studies how the war managers who left the First Army structure at the end of 1915 campaign used the lessons they had learned to plan operations during the Battle of the Somme.

The First Army and Learning in 1916

The war managers of the British First Army identified a number of lessons from their individual and collective experiences in the 1915 campaign. This section begins by examining the extent to which the war managers applied those lessons to the planning of

³ Paul Cobb, *Fromelles, 1916* (Stroud, 2010), 8-9; Martin Gilbert, *Somme: The Heroism and Horror of War* (London, 2006), 121.

the Battle of Fromelles in the 1916 campaign. To evaluate this, five examples of the First Army's actions in the 1915 campaign from which lessons were drawn will be examined. They are: the selection of troops to undertake the attack; the selection of the ground to be attacked; the preparations made in the planning phase; the setting of objectives; and the planning of the artillery bombardment. Following this evaluation, this section goes on to examine how the First Army war managers sought to make sense of their experiences in the post-battle analysis. This allows for conclusions to be drawn on whether the war managers altered their means of data creation and capture in the 1916 campaign or whether there was continuity in methodology from the actions of 1915.

The first example to be analysed is the selection of the troops designated to make the attack. One of the key lessons identified by the war managers from the Battle of Loos was that inexperienced infantry divisions should be given a prolonged period of holding the line prior to being asked to undertake a significant offensive action, in order that they could acclimatise to the nature of trench warfare and become familiar with their surroundings.⁴ At Loos, the handling of the reserve 21st and 24th Divisions of XI Corps attracted a large amount of scrutiny and resulted in an official enquiry. On 26 September 1915, the two divisions – which only arrived in France three weeks before – reinforced the British line and staged an attack on the German trenches. It was a complete failure and the troops fell back in disarray, with reports of men abandoning

⁴ TNA, WO158/263, Battle of Loos: Reports of the 21st and 24th Divisions, Haig to GHQ, 4 November 1915.

their weapons in the rush to get to safety.⁵ None of the staff officers of the two divisions had any experience of trench warfare and each infantry battalion contained on average only one officer who had served in the pre-war regular army.⁶ Indeed, of the war managers, none of the brigadier-generals had commanded a brigade in action prior to Loos and neither divisional commander had experience of command in the field. As Lieutenant-Colonel Cosmo Stewart, the GSO1 of the 24th Division, remarked after the war, ‘one lesson from Loos will always hold good. That is, as far as possible, new and inexperienced troops should not experience their baptism of fire in a decisive operation in which they are liable to be exposed to great trials’.⁷

At Fromelles in July 1916, the operation was again managed by XI Corps, commanded by Lieutenant-General Sir Richard Haking, who selected the 61st Division to attack on the right of the British line with the 5th Australian Division of the Second Army being chosen to attack on the left. The 61st (South Midland) Division was a Territorial Force formation that had been created in September 1914 as a replacement for the 48th (South Midland) Division which was earmarked for overseas service. It was originally intended that the 61st Division should remain on home service, however it was posted to the western front and the First Army on 28 May 1916 to replace divisions that had been transferred to the Fourth Army on the Somme. Prior to undertaking the offensive at Fromelles on 19 July, the division had only experienced one quiet tour in the trenches

⁵ TNA, WO158/262, Battle of Loos: 21st Division Report, George Forestier-Walker to II Corps headquarters, 15 October 1915.

⁶ TNA, CAB45/121, Brigadier-General Cosmo Stewart to Major A. F. Becke, 8 August 1925.

⁷ TNA, CAB45/121, Brigadier-General Cosmo Stewart to Major A. F. Becke, 25 August 1925.

and the sum of their collective experience were five company-sized trench raids conducted in the period 26 June–13 July.⁸ Indeed, the failure of the preparatory bombardment to cut the barbed wire prevented two of those raids from achieving their rather pointless objective of remaining in the German trenches for a period of one hour.⁹ Rather than being a means of building up experience of undertaking meaningful operations against the enemy, the raids conducted by the 61st Division were ordered to foster the offensive spirit of the units involved. If the 61st Division was an inexperienced formation, so too was the 5th Australian Division. The latter was formed in Egypt in early 1916 and only joined the Second Army in France on 29 June, three weeks prior to the attack. In terms of leadership, both divisional commanders were similarly inexperienced: Major-General Colin Mackenzie of the 61st Division served on the western front in 1914 as GOC 4th Division, but was replaced after only three weeks in command owing to poor battle-planning skills; and Major-General James McCay, GOC 5th Australian Division, was a former colonial Minister of Defence who had commanded 2 Australian Brigade in the Gallipoli landings in April 1915 but had no experience of offensive action on the western front.

While the Second Army had ordered the 5th Australian Division to be attached to XI Corps for the battle, Haking himself chose the 61st Division to make the attack ahead of more experienced divisions in his corps. The reason for this was Haking's underlying belief that inexperience worked in the favour of newly-arrived infantry divisions, as they

⁸ TNA, WO95/3033, Sixty-First Division General Staff War Diary, June–July 1916.

⁹ TNA, WO95/3033, Sixty-First Division General Staff War Diary, 'Report on Raids carried out by 183rd Infantry Brigade on night of 4/5th July 1916'.

would advance ‘full of esprit and elan, and being ignorant of the effects of fire and the intensity of it, would go forward irresistibly and do great things’.¹⁰ As has been established, Haking advocated the power of offensive spirit and believed that moral fibre and personal courage were crucial to operational success. His ethos, that neither he nor the officers under his command ‘will stop until we have used up every man we have got’, typified his approach to battle-planning both in the 1915 campaign and beyond.¹¹ Major-General Mackenzie appears to have held similar beliefs, reporting back to Haking that, after the attack, he was ‘confident [the division’s] spirit is as good, or even better, than it was before the attack’ despite fifty percent casualties among the attacking battalions.¹² At Fromelles, Haking failed to implement one of the prime lessons of the 1915 campaign. The experience of the XI Corps at Loos demonstrated that it was unwise to throw inexperienced formations into the attack before they had acclimatised to their surroundings. This point was evident to Haig and to the commanders of both the 21st and 24th Divisions, both of whom passed their after-action reports to Haking and the XI Corps staff in the days following the Loos attack.¹³ Haking, however, made no such allowance in his official reports to First Army and suggested that the failures in the attack at Loos were the result of the attacking divisions’ lack of march discipline,

¹⁰ TNA, CAB45/121, Brigadier-General Cosmo Stewart to Major A. F. Becke, 8 August 1925.

¹¹ TNA, WO95/1228, First Division General Staff War Diary, ‘Lecture on the Attack by Major-General Sir Richard Haking’, April 1915.

¹² TNA, WO95/3033, Sixty-First Division General Staff War Diary, Major-General Colin Mackenzie, ‘61st Division’s Report on Operations 15th to 19th July 1916’, 22 July 1916.

¹³ See, TNA, WO158/263, Battle of Loos: Reports on Action of the 21st and 24th Divisions, Haig to GHQ, 28 October 1915; TNA, WO158/32, Battle of Loos: 24th Division Report, Major-General John Capper to V Corps, 25 October 1915; TNA, WO158/262, Battle of Loos: 21st Division Report, Major-General George Forestier-Walker to II Corps, 15 October 1915.

abandoning their rifles, and imagining they were coming under friendly fire.¹⁴ In his after-action report following the Battle of Fromelles, Haking fell back on familiar reasons for the failure to break the German line. 'The 61st Division', he wrote, 'was not sufficiently imbued with the offensive spirit to go in like one man' and the 5th Australians 'were not sufficiently trained to consolidate the ground gained'.¹⁵

Michael Senior suggested that Haking displayed both a willingness to blame subordinate formations for operational errors rather than admit any fault of his own, and that he showed a 'lack of empathy' towards his men.¹⁶ While this appears true, his conduct at Fromelles also displays Haking's inability to accept a lesson which had been identified at points both above and below him in the army structure and of which he was aware. In terms of organisational development, the lesson was clearly identified at the 'data creation and collation stage' but was not accepted at the 'consideration stage'. The reason for this was that the lesson did not fit within what Travers would term Haking's 'mental horizons'; in short, he was incapable of adapting his mindset to this reality of war.¹⁷ Throughout the 1915 campaign, Haking demonstrated a willingness to consider his experiences, often providing timely, thoughtful analyses of events he witnessed, but this did not translate into an ability to accept information that was counterintuitive to his prevailing ethos. This resulted in Haking taking the same decisions at Fromelles as he had at Loos with the same costly, predictable and perhaps, avoidable results.

¹⁴ TNA, WO95/158, First Army General Staff War Diary, Haking to Haig, 10 and 27 October 1915.

¹⁵ TNA, WO95/165, First Army General Staff War Diary, XI Corps to First Army, 24 July 1916.

¹⁶ Senior, *Haking; A Dutiful Soldier*, 66-9.

¹⁷ Travers, *Killing Ground*, xx, 37.

The second example that can be examined with respect to learning from the 1915 campaign is the selection of the Fromelles battlefield. The First Army's offensive operations in the 1915 campaign were dominated by attempts to capture the Aubers Ridge. At Neuve Chapelle, the final objectives included the capture of the villages of Illies and Herlies which lay atop the ridge and, in May 1915, the eponymous battle had the Aubers Ridge as its primary objective. Following the latter battle, Haig concluded that an attack on Aubers Ridge was unlikely to succeed because 'the defences on our front are so carefully (and so strongly) made [and contain] mutual[ly] support[ing] machine-guns'.¹⁸ Despite this, in August 1915, Haig still thought that the capture of the Aubers Ridge would have 'the greatest tactical results' for the First Army when compared to a possible attack at Loos.¹⁹ The tactical significance of the Aubers Ridge was threefold: first, its capture would eliminate the German observation advantage over the British trenches; second, it would move the British line out of the waterlogged ground in the valley of the River Lys; and third, it would open the door to further attacks on the key communications centres at Lille and Bethune. The importance attached to the Aubers Ridge by the First Army did not disappear with the failure of the Battle of Fromelles. In February 1917, the new commander of the First Army, General Henry Horne, drafted two attack schemes which proposed the capture of the Aubers Ridge and,

¹⁸ NLS, Haig Papers, Acc.3155/101, Typescript Diary, 11 May 1915.

¹⁹ NLS, Haig Papers, Acc.3155/102, Typescript Diary, 21 July–2 August 1915.

in October 1918, the ridge was eventually captured by Haking's XI Corps in the Hundred Days campaign.²⁰

The plan to capture the ridge was not the first choice for the attack considered by the First Army war managers in July 1916. At that time, the seven divisions of the First Army held a front of 38,000 yards running from Fromelles in the north to Vimy Ridge in the south.²¹ On 9 July 1916, General Sir Charles Monro, GOC First Army, informed GHQ that there were four areas of his line where the best results could be obtained by an offensive action: Vimy Ridge, Hill 70 at Loos, the village of Violaines, and the Aubers Ridge.²² Monro concluded that an attack on the Vimy Ridge would be of the greatest value but would be too ambitious; an assault on Hill 70 was 'more within the scope of our resources'; an attack on Violaines was hampered by it being 'in a difficult country in which to operate'; and the attack on the Aubers Ridge 'has no significance unless the armies remain in their present positions'.²³ Monro's recommendation was that the First Army attack should have taken place at Hill 70, while the army kept one eye on Vimy Ridge – which was closest to the Fourth Army operations on the Somme – in case they had to support a major breakthrough. The switch in focus to the XI Corps front at Aubers Ridge had operational reasons; on 11 July, GHQ informed the First Army that that Germans had transferred eleven infantry battalions from near Lille to the Somme and the weakened defensive line opposite Haking's men provided a tempting objective.

²⁰ See TNA, WO158/40, First Army Aubers Ridge File, 1917.

²¹ TNA, WO158/186, First Army Operations File, First Army to GHQ, 9 July 1916.

²² TNA, WO158/186, First Army Operations File, First Army to GHQ, 9 July 1916.

²³ TNA, WO158/186, First Army Operations File, First Army to GHQ, 9 July 1916.

The idea to change the point of attack did not originate at First Army headquarters; at a conference of staff officers on 13 July, Major-General Sir Richard Butler, then deputy Chief of Staff at GHQ, 'suggested certain plans' to the assembled group, who agreed 'after some discussion'.²⁴

While First Army headquarters had not foreseen an attack on the Aubers Ridge, Haking had been planning for such an eventuality for several months. At a conference on 9 May, Haking expressed his desire to undertake 'a powerful and extended offensive...in conjunction with the Australian Corps...the ultimate objective being the capture of the Aubers and Fromelles Ridge'.²⁵ Experience in May 1915 had demonstrated that the Aubers Ridge defences were impregnable unless there was a substantial number of heavy artillery guns to destroy machine-gun emplacements and support the main attack. However, by Fromelles, the war managers believed that the Aubers Ridge was 'most suitable terrain [for the attack] if we are *short* of heavy guns'.²⁶ As chapter four highlighted, in May 1915, the war managers failed to appreciate that the German Army would have adapted their defensive strategy in the period between Neuve Chapelle and Aubers Ridge, with the result that the British attacks did not even penetrate the first German line of resistance. After a year of relative inactivity on the Aubers Ridge front, the Germans had further solidified their positions; one portion of the line held by the 16th Bavarian Reserve Infantry Regiment contained seventy-five concrete machine-gun

²⁴ TNA, WO158/186, First Army Operations File, Sir Richard Butler, 'Memorandum on the Arrangements made with First and Second Armies on the 13th July 1916'.

²⁵ Haking, quoted in Senior, *Haking: A Dutiful Soldier*, 114.

²⁶ TNA, WO158/186, First Army Operations File, 'Note on Monro's Paper in connection with selection of a front of attack', 11 July 1916. My italics.

bunkers along a 2,000-yard front.²⁷ At Fromelles in July 1916, the war managers made the same mistake as in May 1915 and underestimated the force needed to break in to the German positions; in short, they failed to identify the lessons which were required to solve the specific operational problem with which they were confronted.

The third example concerns the thoroughness of preparations in the battle-planning phase. The 1915 campaign demonstrated that there were significant benefits from having a thorough and methodical planning phase and, by March 1916, war managers had accepted that the planning of offensive actions should begin weeks before the actual assault.²⁸ At Neuve Chapelle in March, the planning phase lasted thirty-two days despite Haig's original ideas that the army could be ready to attack with only ten days notice; at Loos, it had extended to three months of methodical planning. Haking's original scheme of attack at Fromelles, written on 9 July, requested only a four-day preparatory phase prior to the infantry attack.²⁹ When the attack was authorised on 13 July, the date set for the commencement of operations was set for 17 July. In the event, the attack was postponed for two days despite Haking's protestations that a cancellation of operations 'would have a bad effect on the troops, and [would result in] a loss of confidence in the future'.³⁰ Analysis of the battles of the 1915 campaign revealed three importance characteristics of the planning phase: the importance of withdrawing attacking troops from the trench line prior to the assault for a period of rest and

²⁷ Senior, *Haking: A Dutiful Soldier*, 121.

²⁸ IWM, General Staff, *SS.101 – Notes for Infantry Officers on Trench Warfare*, 56.

²⁹ TNA, WO95/881, XI Corps General Staff War Diary, Haking to First Army, 9 July 1916.

³⁰ TNA, WO158/186, First Army Operations File, Sir Richard Butler, 'Memorandum of visit to First Army, Sunday July 16th', 16 July 1916.

recuperation; that mission-specific training led to better results; and the benefits gained by the creation and use of models of the ground over which the assaulting troops would attack.

The lesson that attacking troops should be withdrawn from the line prior to the assault had been identified, and accepted in the 1915 campaign, and had been codified in the general staff publication *SS.101 – Notes for Infantry Officers on Trench Warfare*.³¹ Instead of withdrawing the 61st Division from the front lines to rest prior to the assault, Haking ordered them to concentrate opposite Fromelles. At the time of the assault they had continuously been in the front line trenches for thirteen days. On 17 July, instead of resting, the troops were employed removing gas canisters from the front line trenches, which left the men ‘completely exhausted and nothing more could be done’.³² The time spent fetching and carrying in the run up to the battle prevented the men of the attacking brigades from undertaking any form of specific training in preparation for the assault. The 61st Division had, since their arrival in France in May, only undergone informal training, including a three-day attachment to the 35th and 38th Divisions for each infantry battalion.³³ Furthermore, their pre-deployment training in Britain was characterised by a lack of equipment and a high turnover of personnel. As a second-line Territorial Force formation, the 61st Division was behind both the divisions of the New Army and the first-line Territorial Force division – the 48th – in the pecking order for the provision of

³¹ IWM, GHQ, *SS.101 – Notes for Infantry Officers on Trench Warfare*, 57.

³² TNA, WO95/3033, Sixty-First Division General Staff War Diary, Mackenzie, ‘61st Division Report on Operations, 16th to 19th July 1916’.

³³ TNA, WO95/3033, Sixty-First Division General Staff War Diary, June-July 1916.

equipment; indeed the men were only supplied with Lee Enfield rifles in December 1915, a full fourteen months after the division was formed, and the artillery brigades only received the guns they would take to France in early 1916.³⁴ Similarly, unit cohesion was tested by the drain of men who were cherry-picked for the 48th Division and, from mid-1915, for service in the munitions industry.³⁵ Haking was acutely aware of the poor standard of training in the 61st Division; he said as much in a letter to First Army two days prior to the assault and he commented in the post-battle analysis that ‘with two trained divisions...the position would have been a gift’.³⁶ However, neither he nor Mackenzie made any provision for instructing their troops in the methods required to make it a success. That being said, Haking had arranged for models of the German trenches opposite the XI Corps position to be created on a reduced scale at each of his divisional headquarters, however their purpose was to assist in the planning of trench raids and there is no indication that the officers of XI Corps or the 61st Division used them in formulating the Fromelles attack plan.³⁷

The fourth example concerns the selection of objectives for the assaulting divisions. In the 1915 campaign there existed considerable differences of opinion among the war managers regarding the correct attack methodology. While Haig, Gough and Haking favoured planning for a decisive breakthrough battle, others, such as Rawlinson,

³⁴ David Craig, ‘The 61st Division had the reputation of being a poorly performing formation. How did it acquire this reputation and was it a justified description?’, unpublished MA thesis, University of Birmingham (2005), introduction.

³⁵ Craig, ‘61st Division’, 18.

³⁶ TNA, WO95/881, XI Corps General Staff War Diary, Haking to First Army, 17 and 24 July 1916.

³⁷ TNA, WO95/164, First Army General Staff War Diary, 8 June 1916.

Robertson and Capper, suggested success was more likely through more deliberate, methodical means, variously termed ‘bite and hold’ or the ‘step by step approach’. While the breakthrough battle approach set far-reaching objectives for the infantry attack, the others were more moderate, preferring to capture a section of the enemy’s front line trench system, hold it against the inevitable counterattack before beginning again and steadily, if slowly, advancing. With Haig as the First Army’s chief offensive planner in 1915, the breakthrough battle was preferred and gained little reward in terms of ground gained. The exception to this was at the Battle of Festubert in May, when the disaster of the Aubers Ridge attack prompted a change in thinking and resulted in greater operational success, at least in the first two days of battle.

On 5 July, GHQ instructed the First Army to plan to ‘make a break in the enemy’s line and to widen it subsequently, on the assumption that success would result’ from the Somme offensive and would prompt a general advance.³⁸ Haking, in his original draft plan of 9 July, foresaw the need to capture ‘two main tactical localities’ on the ridge – the high ground around Fromelles and the village of Aubers.³⁹ In order to achieve this, the 61st and 5th Australian Divisions would be required to assault the German front line trench system and then advance some 5,000 yards to the objectives on the ridge. Haking proposed splitting the force into two waves, the first of which would capture the front trenches and would then be leapfrogged by the reserve which would ‘continue the attack on the Aubers Ridge, each brigade with definite objectives’. Haking, however, stopped

³⁸ TNA, WO158/186, First Army Operations File, Kiggell to First and Second Armies, 5 July 1916.

³⁹ TNA, WO95/881, XI Corps General Staff War Diary, Haking to First Army, 9 July 1916.

short of actually identifying those objectives. This vagueness has similarities with the actions of Brigadier-General Wallerstein, GOC 45 Brigade, during planning of the Battle of Loos who, when asked whether the brigade should push on or consolidate, gave the inconclusive answer of 'if things go well push on regardless, but take it as you find it'.⁴⁰ Following Butler's visits to First Army on 13 and 16 July, it became clear that the Fromelles plan was to be used as a diversionary attack rather than as offensive in its own right. Despite this, Haking persisted in promoting the idea of the breakthrough. In the final meeting with Butler on 16 July, Haking asked whether he was allowed to push on and assault the Aubers Ridge in the event of his attack being successful; Butler refused to sanction such an attack and stressed that Haig desired the First Army's operations to have 'a strictly limited objective'.⁴¹ The 1915 campaign had demonstrated conclusively that in the specific strategic and operational context of the western front a breakthrough battle was unlikely to succeed. Despite this, it is clear that Haking preferred planning for a breakthrough. This is another example of Haking's failure to adapt his own thinking based on the evidence presented to him and it was only the restraining hand of GHQ which altered his operational approach.

The final example analyses the troublesome problem of the artillery bombardment. While all the battles of the 1915 campaign demonstrated the importance of the artillery bombardment, the Battle of Aubers Ridge gave the clearest indications of what could happen if the war managers did not apply the correct lessons to the operational problem.

⁴⁰ IWM, Christison Papers, Doc.4370, unpublished memoir, 36.

⁴¹ TNA, WO158/186, First Army Operations File, Sir Richard Butler, 'Memorandum of visit to First Army, Sunday July 16th', 16 July 1916.

Following the Battle of Fromelles, Haking concluded that ‘the artillery preparation was adequate, there were sufficient guns and sufficient ammunition’.⁴² However, Major-General Colin Mackenzie’s after-action report asserted that while the barbed wire defences were destroyed and ‘presented no obstacle’, key obstacles in the German line remained intact.⁴³ In particular, these obstacles included numerous machine-gun strongpoints which were able to make ‘a curtain of fire in front of the trenches’ and halt the British advance.⁴⁴ This had been the same problem as at Aubers Ridge a year before. The cause of this failure at Fromelles was not a lack of guns or a ammunition, but was the result of the war managers’ failure to engage with their past experiences and draw lessons from them. The artillery preparation at Fromelles was characterised by human error. Mackenzie noted that the corps heavy artillery ‘had been unable, in the time at their disposal, to register’ their guns onto the targets on the Aubers Ridge.⁴⁵ The reason for this was Haking’s insistence on a short preparation phase; he noted on 17 July that the operation had to be postponed because bad weather prevented guns that ‘had never fired out here before’ from being registered and from gaining practice in counter-battery fire.⁴⁶ Furthermore, no system was established by which artillery officers could observe the fall of their shells and make the necessary corrections.⁴⁷ The original plans drawn up by XI Corps headquarters asserted the premise that fire superiority ‘can only

⁴² TNA, WO95/881, XI Corps General Staff War Diary, Haking to First Army, 24 July 1916.

⁴³ TNA, WO95/3033, Sixty-First Division General Staff War Diary, Colin Mackenzie, ‘Report on Operations, 15th to 19th July’, 22 July 1916.

⁴⁴ TNA, WO95/3033, Sixty-First Division General Staff War Diary, Colin Mackenzie, ‘Report on Operations, 15th to 19th July’, 22 July 1916.

⁴⁵ TNA, WO95/3033, Sixty-First Division General Staff War Diary, Colin Mackenzie, ‘Report on Operations, 15th to 19th July’, 22 July 1916.

⁴⁶ TNA, WO95/881, XI Corps General Staff War Diary, Haking to First Army, 17 July 1916.

⁴⁷ TNA, WO95/3033, Sixty-First Division General Staff War Diary, Colin Mackenzie, ‘Report on Operations, 15th to 19th July’, 22 July 1916.

be gained by killing and demoralising the men behind the machine guns and the infantry garrison'.⁴⁸ In what Haking called 'the man-killing portion of the scheme', a series of fake barrage lifts would see the German front line trench garrison annihilated, however no provision was made to deal specifically with emplaced machine-gun positions.⁴⁹ The XI Corps artillery plan was, in effect, more muddled than those of the 1915 campaign. There is no indication that Haking considered any of the First Army's previous experiences in drawing up the plans with the result that the 61st and 5th Australian Divisions suffered many avoidable casualties. The XI Corps proved unable to implement many of the lessons identified in the 1915 campaign. The main reason for this was the leadership style of Lieutenant-General Sir Richard Haking whose inflexible approach to battle-planning saw him dominate the preparatory phase of battle in the same way as Haig had done the previous year. In terms of organisational development, Haking did not, or could not, accept lessons which sat outwith his paradigm of warfare. His was a traditional approach, in which an overriding belief in the offensive spirit and personal courage trumped learning the lessons from recent experience.

It now falls to examine briefly how the First Army war managers attempted to learn from the Battle of Fromelles. Throughout the 1915 campaign, Haking provided timely and thoughtful after-action reports, in his positions as GOC 1st Division and, from August, XI Corps. On 24 July, five days after the failed attack at Fromelles, Haking forwarded the after-action report of the 61st Division to Monro at First Army

⁴⁸ TNA, WO95/881, XI Corps General Staff War Diary, Haking to First Army, 9 July 1916.

⁴⁹ TNA, WO95/881, XI Corps General Staff War Diary, Haking to First Army, 17 July 1916.

headquarters. It was followed two days later by the report of the 5th Australian Division. Mackenzie's five-page report consists of a narrative account followed by certain 'remarks' based on his observations, while Major-General McCay's report was wholly narrative in nature, albeit significantly more detailed than that provided by the 61st Division. Haking's covering letters with both reports make some attempt at analysis, however his comments mainly concern the 'great deal of good' the failed attack would do to the offensive spirit of the divisions involved.⁵⁰ Oddly, despite the evidence to the contrary, Haking asserted that 'artillery work turned out even better than I expected'; a comment which reveals that Haking still failed to identify the true reason for the failure of the attack.⁵¹ On 16 August, Haking – by then promoted to command the First Army in place of Monro – forwarded a 'summary of events' of the Fromelles operation to GHQ compiled by the First Army general staff.⁵² While the individual reports from the two divisions were also forwarded, Haking was of the opinion that 'one comprehensive report' was of more use to GHQ, but, like his earlier writings, make little attempt at analysis.

While Haking's own considerations, and those of his subordinate officers, tend towards the narrative, one report bucked this trend. An undated and unsigned memorandum located in the First Army war diary critically examined the earlier narrative reports and

⁵⁰ TNA, WO95/165, First Army General Staff War Diary, Haking to First Army, 24 July 1916.

⁵¹ TNA, WO95/165, First Army General Staff War Diary, Haking to First Army, 26 July 1916.

⁵² TNA, WO95/165, First Army General Staff War Diary, Haking to First Army, 16 August 1916. Haking was in temporary command of the First Army from 7 August–30 September 1916 and was replaced by General Henry Horne.

asserts ‘that there are some useful lessons to be gained for future guidance’.⁵³ It concluded that the time available for carrying out the preliminary arrangements for the attack was insufficient, that there was no opportunity given to train the troops, and that the hurried nature of the planning phase left the men in a state of exhaustion. Furthermore, the memorandum asserts that ‘there may have been an artillery plan, but there is no evidence of it’ in contemporary operational files or war diaries.⁵⁴ The memorandum also highlights inconsistencies in Mackenzie’s and Haking’s reports and, since it adopts a highly critical tone, it can be assumed that it was authored by someone at the top of the BEF structure, perhaps Haig, himself. Irrespective of the identity of the author, the memorandum demonstrates that even though the war managers within the First Army showed little ability or willingness to learn from their experiences, the Battle of Fromelles was carefully analysed and its lessons were identified for future operations. However, the extent to which these lessons were considered, accepted, disseminated and implemented is not evident and is beyond the scope of this thesis.

The War Managers Later Experience

Between the end of the 1915 campaign and the opening of the Somme offensive in July 1916, there were significant changes in personnel in the upper echelons of the BEF war management hierarchy. General Sir Douglas Haig replaced Field Marshal Sir John French and assumed the role of commander-in-chief, a position he would hold until the

⁵³ TNA, WO95/165, First Army General Staff War Diary, ‘Remarks on Recent Operations on XI Corps Front’, undated.

⁵⁴ TNA, WO95/165, First Army General Staff War Diary, ‘Remarks on Recent Operations on XI Corps Front’, undated.

end of the war; Lieutenant-General Sir Henry Rawlinson temporarily assumed Haig's old role as GOC First Army, before being replaced by General Sir Charles Monro and becoming the GOC Fourth Army; Lieutenant-General Sir Hubert Gough remained as the GOC I Corps before continuing his rapid rise through the BEF hierarchy and being appointed GOC Reserve Army; and Lieutenant-General Henry Horne was promoted to command XV Corps and then the First Army in 1916. This section demonstrates how the war managers, who served with the First Army in the 1915 campaign, learned from their experiences and used them in later battle-planning in positions outside the First Army structure.

Lieutenant-General Sir Henry Rawlinson had accumulated a wealth of experience as GOC IV Corps in the 1915 campaign. Despite his lack of sincerity and willingness to place blame on his subordinate officers, Rawlinson remained one of Haig's favourites and was appointed to command the Fourth Army as a reward for his loyalty to his commander-in-chief. One of Rawlinson's first tasks was to draw up the operational plans for what would become the Somme offensive. The bulk of this work was undertaken by Major-General Sir Archibald Montgomery, Rawlinson's chief-of-staff at Fourth Army headquarters, whose draft plan was forwarded to Haig on 3 April. The plan reverted back to Rawlinson's 'bite-and-hold' ideology that originated after the Battle of Neuve Chapelle; the aim of the plan was not to capture territory, but to kill as many Germans as possible with the least loss to ourselves'.⁵⁵ Rawlinson was keen to point out that previous experience had dictated that the majority of the territorial gains

⁵⁵ Prior and Wilson, *The Somme*, 41.

were achieved in the initial advance, again something he had identified at Neuve Chapelle.⁵⁶ Furthermore, in their original operational plans, Rawlinson and Montgomery directly referred back to lessons identified from the Battle of Loos, thus demonstrating a willingness to consider past experiences and apply them to new operational problem solving.⁵⁷ However, their operational plan demonstrates that some lessons remained unidentified and confused. While the Fourth Army planners acknowledged the benefits of a short, intense bombardment, they believed the strategic conditions warranted a longer, more methodical approach, however, they continued to misinterpret the firepower lessons which had been identified at Neuve Chapelle and at Aubers Ridge and they underestimated the number of heavy howitzers needed to destroy the two German defensive trench systems.⁵⁸

Rawlinson also realised that his 'bite-and-hold' approach would be unpopular with Haig; 'I daresay I shall have a tussle with him over the limited objective', Rawlinson confided in his diary, 'for I hear he is inclined to favour the unlimited with the chance of breaking the enemy line'.⁵⁹ The experience of the battles of 1915 did nothing to lessen Haig's belief in the power of the breakthrough battle methodology. Haig's determination to restore mobility to the battlefield had not diminished and, in December 1915, he had instructed his corps commanders to pay 'careful attention to battle training in the open'

⁵⁶ CAC, Rawlinson Papers, RWLN 1/1, Diary, 21 March 1915.

⁵⁷ It is likely that this consideration was the input of Montgomery who was a keen student of the Battle of Loos and who had lectured widely on its lessons in the period December 1915–May 1916. See, for example, LHCMA, Montgomery-Massingbird Papers, 7/1, 'Lecture on the Battle of Loos'.

⁵⁸ Prior and Wilson, *The Somme*, 42-3; Harris, *Douglas Haig and the First World War*, 219-20.

⁵⁹ CAC, Rawlinson Papers, RWLN 1/3, Diary, 31 March 1916.

when their formations were out of the line.⁶⁰ Haig believed that as trench warfare 'is constantly being practised' there was no need to train for it during rest periods, rather commanders should 'bring home to all ranks...the lessons learnt in the war as regards open warfare'.⁶¹ His opinion had not changed by April 1916 and he envisaged the Somme offensive leading to a battle in the open ground beyond the trench systems.⁶² In order to achieve this, Haig suggested an intense bombardment followed by a much more ambitious assault. Here too there was a misreading of the firepower lessons from 1915; a short bombardment would be unlikely to destroy the substantial barbed-wire defences and machine-gun emplacements without a major increase in the number of guns and high explosive. As Harris suggested, one of Haig's fundamental weaknesses at this point in the war was an inability to understand firepower lessons.⁶³ Indeed, whether the bombardment was long or short, the number of guns and the amount of ammunition available was the same. And yet, Haig's plan to push on deep into the German defences added more targets which required neutralisation, thus limiting the effectiveness of the bombardment.

Part of Haig's wider plan for the opening of the Somme offensive saw the two cavalry corps disbanded and spread through the existing armies with some joining the Reserve Corps which was soon to be enlarged into the Reserve Army.⁶⁴ The role of the Reserve Army during the Somme offensive appears to have been to act as a mobile strike force

⁶⁰ NLS, Haig Papers, Acc.3155/103, Typescript Diary, 11 December 1915.

⁶¹ NLS, Haig Papers, Acc.3155/103, Typescript Diary, 11 December 1915.

⁶² NLS, Haig Papers, Acc.3155/105, Typescript Diary, 5 April 1916.

⁶³ Harris, *Douglas Haig and the First World War*, 221.

⁶⁴ Sheffield, *The Chief*, 167.

which could be used to exploit any successes made by the Fourth Army using cavalry, infantry and artillery in an early version of the all-arms battle style.⁶⁵ Haig's desire to have a dedicated, centrally commanded reserve may have stemmed from his experiences at Loos, where the debacle caused by the failed assault of the 21st and 24th Divisions overshadowed many of the battle's successes. Central to Haig's new plan was his protégé, Hubert Gough, who was given responsibility for spreading the all-arms doctrine around his force.⁶⁶ In the event, the battle on 1 July did not result in a British breakthrough and Gough's force was not required to exploits operational successes. However, his role increased as the battle wore on, and was not without controversy. Gough was, like Haking at XI Corps, an archetypal 'thruster', who tended to rush troops into the attack with little operational planning, preferring to rely on his soldiers' offensive spirit. On 2 July, the Reserve Army's attack on the Schwaben Redoubt was 'a complete shambles' and was characterised by an inadequate planning phase, the use of inexperienced troops, deficient artillery support and difficulties in maintaining communication networks.⁶⁷ Gough's desire for urgency continued throughout the campaign; on 18 July, he ordered the 1st Australian Division to attack the village of Pozieres with little more than twenty-four hours' notice. Recognising the deficiencies in planning, the divisional and corps commanders protested and the assault was delayed.

⁶⁵ Sheffield, *The Chief*, 167.

⁶⁶ Sheffield, *The Chief*, 167.

⁶⁷ Gary Sheffield, 'An Army Commander on the Somme: Hubert Gough', in Gary Sheffield and Dan Todman (eds), *Command and Control on the Western Front: The British Army's Experience, 1914–1918* (Stroud, 2004), 78.

When it eventually began on 23 July, after a more deliberate, considered planning phase, it was highly successful.⁶⁸

On the opening day of the Somme offensive only two of the eleven assaulting divisions had experience of conducting large-scale offensive operations from the 1915 campaign. Major-General Montgomery believed that those divisions which had fought in 1915 had a distinct advantage over those who had recently arrived in France, and suggested that the 7th Division's preparations for the opening day of the Somme were 'particularly' good because they had 'taken part in every attack from Neuve Chapelle, Festubert [and] Loos'.⁶⁹ The 7th Division benefitted from being under the command of Major-General Sir Herbert Watts, an experienced officer who had been part of the divisional structure since late-1914 and from being part of XV Corps, commanded by General Henry Horne, an officer who had considerable operational planning experience. The units of the 7th Division were quick to recognise the importance of a methodical preparatory phase; 20 Brigade, which attacked on 1 July, had been in the same position since 20 April and 'had made the most careful arrangements in [their] own trenches to assist in the development of the attack'.⁷⁰ Furthermore, Horne's innovative artillery barrage enabled the men of the 7th Division to cross no man's land relatively unscathed. Horne employed a prototype version of the creeping barrage which would prove so successful in the Hundred Days campaign in 1918, which enabled the men of the 7th Division to advance

⁶⁸ Sheffield, 'Army Commander on the Somme', 71.

⁶⁹ Montgomery-Massingbird, quoted in Robbins, *British Generalship on the Western Front*, 85.

⁷⁰ TNA, WO95/1631, Seventh Division General Staff War Diary, 'Report on the Operations of the 20th Infantry Brigade in the Vicinity of Mametz, July 1st-3rd 1916', 7 July 1916.

under constant artillery support. As an artilleryman, Horne was well-placed to understand the intricacies of the firepower lessons from 1915 and demonstrated this understanding by concentrating his heavy guns on to machine-gun emplacements, strong points, headquarters and observation posts.⁷¹ Despite these advances, the over-riding factor in determining operational success was the quality of leadership. The 8th Division, which had also served throughout the 1915 campaign as part of the First Army, was less successful on 1 July, and suffered from the indecision and unquestioning nature of the GOC III Corps, Lieutenant-General Sir William Pulteney.⁷² It came as no surprise that the divisional commander, Major-General Havelock Hudson, was replaced later in the Somme campaign, and under his successor, the division, which had been 'allowed to become sleepy' subsequently 'improved beyond all recognition'.⁷³ While units, particularly at the divisional level, may have experienced the same battles, the extent to which they were able to identify and apply lessons to subsequent actions depended greatly on the individual war managers involved.

Conclusion

This chapter set out to examine the extent to which the First Army and its war managers were able to implement the lessons of the 1915 campaign. The Battle of Fromelles – the First Army's only offensive action in 1916 – was an unmitigated disaster and replicated many of the problems which characterised the 1915 campaign. At Fromelles, Haking's

⁷¹ Robbins, *British Generalship During the Great War*, 114.

⁷² Prior and Wilson, *The Somme*, 91-9.

⁷³ Major-General Sir William Heneker and Field Marshal Sir Douglas Haig, quoted in Robbins, *British Generalship on the Western Front*, 58.

XI Corps used inexperienced troops, hurried their preparations, did not provide mission-specific training, and did not concentrate their artillery fire onto the enemy's strongpoints, all of which had been identified in the 1915 campaign as limiting possible operational success. Furthermore, the war managers did not draw on their previous experience of attacking the same position – the Aubers Ridge – and while they did settle on a limited objective of the German front line trenches, this was due to the operation being classified as a diversionary attack by GHQ rather than XI Corps preferred operational method. The fault for these failings lay with Lieutenant-General Sir Richard Haking whose inflexibility of approach limited what could be achieved. Haking had proven himself capable of identifying lessons in the 1915 campaign but was either unable to consider their wider implications or was unwilling to accept and implement them. Furthermore, perhaps as a result of the Fromelles battle being a diversionary attack, Haking did not conduct his usual thoughtful post-battle analysis, preferring instead to limit his output to narrative reports and criticisms of the assaulting formations.

The war managers who had served with the First Army in 1915 but who, by the Somme campaign, were serving in other capacities had mixed results in applying the lessons from the previous campaign to their new positions. While Rawlinson and Montgomery at Fourth Army headquarters were keen to refer back to their experiences at Loos when planning the Somme offensive, the application of the lessons they identified remained muddled and piecemeal. In the planning of the first day of the Battle of the Somme, Haig demonstrated his inability to understand the firepower lessons which had been revealed in the 1915 campaign, continuing to plan for a breakthrough battle without

amending the number of heavy artillery accordingly. However, by creating a centralised mobile reserve which was able to exploit any battlefield successes, Haig also showed that he had absorbed some lessons from the earlier fighting. Of all the former First Army war managers, Lieutenant-General Henry Horne, was the one who transferred previous lessons learned into success on the battlefield, and the creeping barrage he used to protect the advance of the 7th Division on 1 July 1916 would be replicated throughout the later successful campaigns. It is telling then that while Rawlinson's career stalled and Gough was removed from command in 1918, Horne was quickly promoted and led the First Army during their successful operations at the Vimy Ridge in April 1917.

If the First Army's performance in the 1916 campaign is analysed with respect to the Organisational Development Model, a different picture emerges when compared with 1915. The planning of the Battle of Fromelles was certainly affected by the same inputs as those identified for 1915, although to varying degrees. Whereas the immediate strategic conditions were determined by GHQ, the First Army – and XI Corps in particular – formulated their battle plan based more on the prevailing institutional ethos than on relevant experience from past battles. When faced with a task which was not central to the success of the wider BEF, thoroughness and methodical planning were replaced by a reliance on the offensive spirit of the units involved. Similarly, the consideration phase of the post-battle analysis after Fromelles was less comprehensive than that of the battles of 1915. Indeed, little attempt was made to divine lessons from the failed enterprise at any level, let alone by the war managers with the ultimate responsibility for force development. This further reinforces the importance of the

senior war managers in the Organisational Development Model. With Monro and Haking taking no interest in learning from the battle, and Mackenzie and McCay inexperienced in the ways of the western front, the First Army war managers did not identify any areas which could be improved upon. As a result, the formation stagnated until the appointment of Henry Horne as GOC First Army in late-1916. The First Army's performance in 1916 reveals the campaign-specific nature of the Organisational Development Model; just because an army strove to make sense of its experiences in a particular way at one point in its history does not mean that it continued to do so. Rather, organisational development is a model that encompasses fluidity in how a particular army formation creates, collates, considers, disseminates and rejects new information over a given time period.

Conclusion

In looking back at the war and all its lessons we must not overlook the most important lesson of all, viz., all wars produce new methods and fresh problems. The last war was full of surprises – the next one is likely to be no less prolific in unexpected developments. Hence we must study the past in the light of the probabilities of the future, which is what really matters. No matter how prophetic we may be, the next war will probably take a shape far different to our peace-time conceptions.¹

Major-General A. E. McNamara

In October 1932, the War Office published their findings following an enquiry into what lessons could be drawn from the British experience of the Great War. A committee of five members, presided over by Lieutenant-General Sir Walter Kirke, each examined a different area of British operations. The responsibility for trying to identify lessons from the four years' fighting on the western front was given to Major-General A. E. McNamara and Major-General J. Kennedy, who sought to examine the conduct of the war in the context of the *Field Service Regulations (FSR)* and using information contained in the recently produced volumes of the *British Official History*.² The two reports highlighted failings in the process of mobilization, the importance of maintaining open networks of communication, the benefits to be gained from issuing clear concise orders, and the need to correctly employ units of the reserve following the main attack. McNamara identified twenty 'tactical lessons', each of which he explained first in narrative form before considering the impact upon the *FSR* and the implications upon

¹ Major-General A. E. McNamara, 'Report on the Lessons of the Great War on the Western Front', in War Office, *Report on the Committee on the Lessons of the Great War* (London, 1932), 31.

² See also, Major-General J. Kennedy, 'Report on Operations on the Western Front', in *Report on the Committee on the Lessons of the Great War*, 33-56.

British Army training. One example concerns what McNamara described as 'Intercommunication in Rear Guard Actions'. After describing the communication problems the BEF experienced in the retreat from Mons in August 1914, McNamara presented his opinion that the *FSR* was 'sound in its precept', regarding the need to maintain lines of communication, but that it was 'hardly helpful in [finding a] solution [to] the problem' which confronted the commanders in that specific instance. In relating the problems to training provision in the pre-war army, McNamara noted that 'the difficulties of communication hardly arise in peace time training...Hence false lessons are apt to be imbibed'.³ While the lessons identified by McNamara's and Kennedy's investigations were of sound principle, based on evidence and had the scope to affect change in the British Army, neither they, nor Kirke in his wider report, addressed the lack of a formal system for turning individual and collective experiences into actionable lessons in the immediate theatre of war. This most important of lessons remained unidentified, unaccepted and unavailable to the institution's war managers, even fifteen years after the end of hostilities.

This thesis set out to examine critically British operational performance on the western front in the 1915 campaign. The aim was not to contribute to the rehabilitation of the reputations of the war managers or to dwell on the horrific casualties suffered by the belligerent forces during the strategic stalemate brought about by trench warfare. Rather, this thesis has sought to investigate how the war managers engaged with their experiences, to demonstrate how they created and considered new information, and to

³ McNamara, 'Lessons of the Great War on the Western Front', 8.

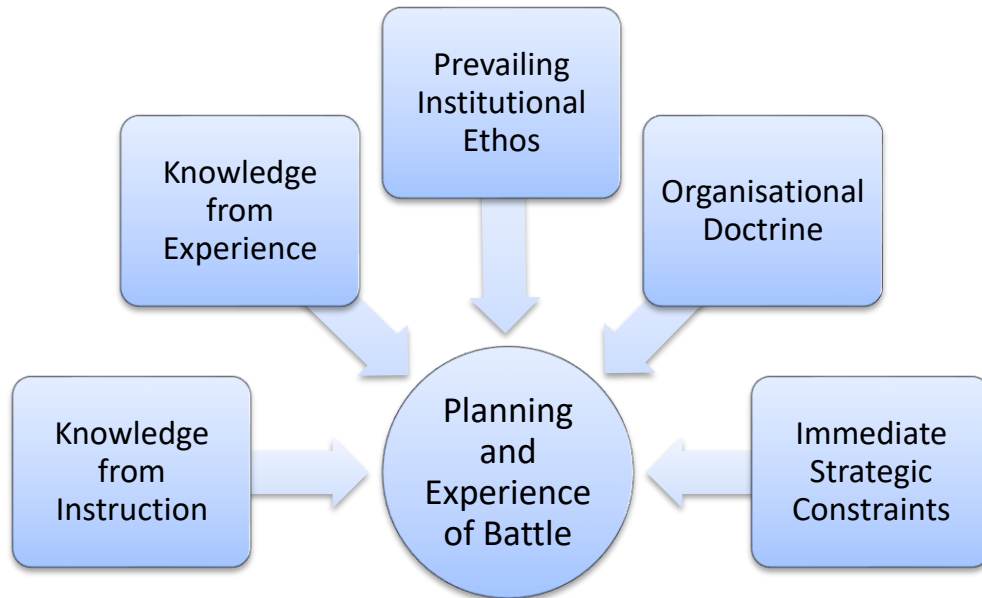
show how they disseminated and institutionalised the lessons they identified. In doing this, it rejected earlier interpretations of understanding learning and institutional change in the British Army of the Great War. In particular, it has shown that the learning curve concept, which has dominated the historiography of British operational performance in the Great War, does not accurately describe the complex process of institutional change, organisational learning and battlefield adaptation which took place on the western front in 1915.

In its place, this thesis has proposed the concept of Organisational Development as a new way of demonstrating *how* institutional learning occurred in the British First Army in the Great War. Rather than being a linear process of continuous improvement as suggested by the learning curve concept, or a series of peaks and troughs in terms of operational performance as in the revised idea of the ‘learning process’, the Organisational Development Model encapsulates a more holistic and nuanced approach to understanding the nature of institutional change on the western front. Furthermore, this thesis has shown that the use of concepts drawn from business studies and military innovation studies can be successfully applied to historical conflicts to give greater understanding of how the First Army functioned as an institution.

The Organisational Development Model consists of five stages, which are presented below. In the first stage, long and short-term personal and institutional factors come together to create the paradigm in which the First Army’s war managers considered the strategic, operational and tactical problems presented by the stalemate of trench warfare.

The preparation and conduct of the battles they subsequently planned represents the second stage of the model.

Figure 7.1: The First and Second Stages of Organisational Development: Knowledge Inputs and Battle Planning and Experience



This thesis has shown that following the close of a particular battle the war managers used a number of different means to make sense of the information with which they were presented. Over the course of the 1915 campaign, the war managers predominantly identified lessons themselves based on their own observations. Rather than being a critique of their own performance and decision-making, this means of data creation saw the war managers view battles at the macro level and identify elements of the planning and execution which went well and could be replicated and others which went poorly and should be amended. While this represented the bulk of attempts to

learn from their experiences, some war managers were proactive in asking for the views of their subordinate officers and some junior officers passed informal reports of their experiences up and across the army hierarchy without waiting for instruction from above. In addition, some war managers from outside the First Army structure also passed analytical reports to friends and colleagues in the First Army. The result of this process of data creation and collation was a body of new knowledge based on the collective experiences of a battle's surviving participants.

This mass of new knowledge was then considered by the war managers in the fourth stage of the Organisational Development Model. The war managers were faced with the choice of either accepting or rejecting the lessons identified in the post-battle analysis. The fourth and fifth stages of the model demonstrate the possible outcomes. In terms of the rejection of new knowledge, the war managers could reject, misinterpret, forget, discard or withhold lessons. If the new knowledge was accepted, it could result in the creation of a new weapon or technology or it could lead to a change in formation structure at the tactical level. Accepted lessons could be disseminated across the force through formal training provision or from the creation of official pamphlets, or they could be shared informally between practitioners using existing social networks or through the dissemination of 'best-practice guidelines'. Furthermore, the lessons could be used on an *ad hoc* basis, becoming knowledge gained through experience and being used in future battle planning. Thus the Organisational Development Model represents a circular process.

Figure 7.2: The Third Stage of Organisational Development – Data Creation and Collation

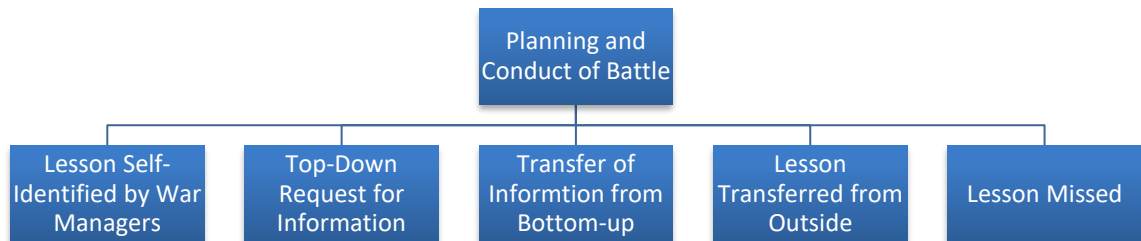


Figure 7.3: The Fourth Stage of Organisational Development - Consideration

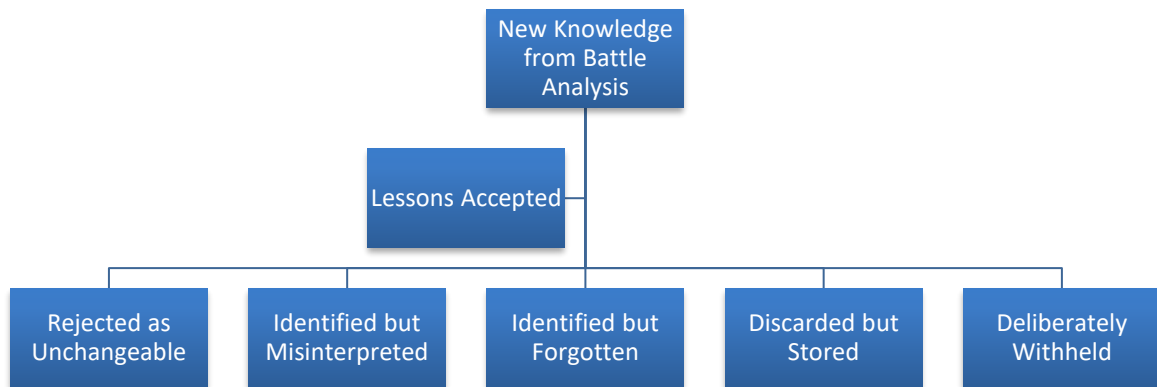
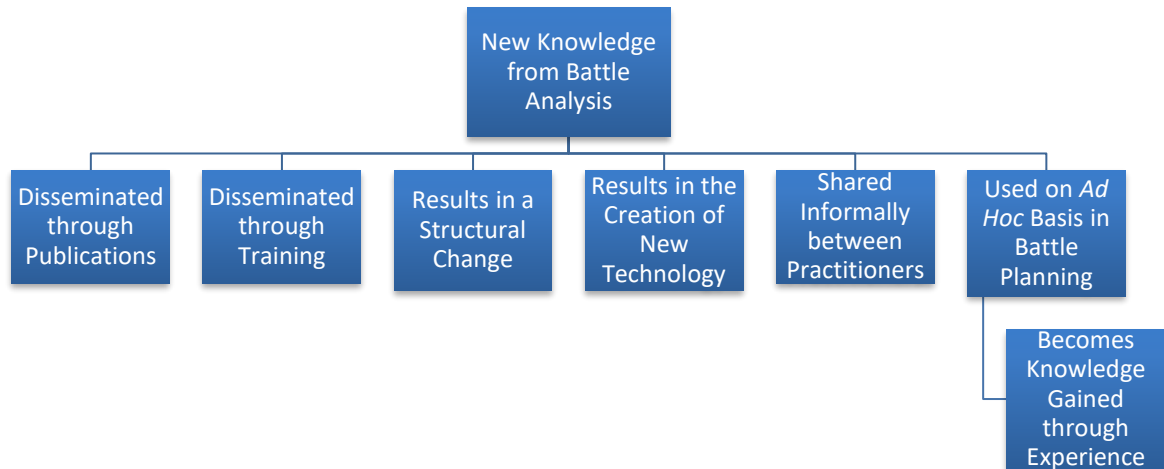


Figure 7.4: The Fifth Stage of Organisational Development – Institutionalisation and Dissemination



This theoretical framework demonstrates how learning occurred in the British First Army in the 1915 campaign. The changes made to the length of the preparatory phase of battle represent one practical example of this system at work. Prior to the Battle of Neuve Chapelle, the First Army war managers believed that the preparatory phase of a trench-to-trench attack could last as little as ten days. This opinion was shaped by their professional education at Sandhurst and Camberley and reinforced by the prevailing ethos and institutional doctrine which asserted that victory would be achieved through elan, bravery, and offensive spirit. The experience of fighting at Neuve Chapelle presented an alternative picture in which deficiencies in the planning phase – particularly in the lack of aerial reconnaissance and delays in siting the heavy artillery – materially affected the outcome of the battle. The trench maps produced by aerial photography were limited to the German front line trenches and left troops blind once

they had advanced beyond their scope, and some heavy guns were only placed in position the day before the attack, giving them little time to register their targets, thus rendering their bombardment ineffectual. In the post-battle analysis, the war managers were quick to identify the lesson themselves – that more careful and more thorough preparation would lead to better results in their quest to fight the war-winning breakthrough battle. After consideration, the war managers accepted this lesson. This had two main outcomes. In the first place, the lesson was used on an *ad hoc* basis and incorporated into the planning for the subsequent battle – Aubers Ridge – which saw a six week planning phase rather than the three weeks at Neuve Chapelle. Second, the lesson was, eventually, incorporated into official doctrine and disseminated in *SS.101*. Thus the lesson that a lengthy preparatory period was required was identified, considered, accepted, utilised, disseminated and institutionalised. In short, it became the new normal for the First Army.

The Organisational Development Model can, then, be used to demonstrate how specific lessons were identified and acted upon by the First Army. When taken as a whole, it represents all the potential avenues that were available to the war managers in terms of their decision-making process. However, it must be stressed that the details of the model have been constructed here based solely on analysis of the British First Army in the 1915 campaign; the institutional learning processes and practices of other constituent parts of the BEF, other national armies, and other time periods may differ substantially.

In critically examining the British Army's offensive operations in the 1915 campaign this thesis has gone some way to filling the large gap in the historiography identified by Gary Sheffield.⁴ The onset of trench warfare in late-1914 presented the British, French and German war managers with a set of strategic conditions for which they had not planned. For the British in particular, this presented a significant challenge; their failure to plan for a protracted future conflict in the pre-war years, coupled with their failure to mobilise British industry as well as manpower in 1914 proved detrimental to the conduct of the 1915 campaign. Williamson Murray's assertion that 'the concepts and innovations of peacetime invariably get much of the next war wrong' holds true for the British approach to the Great War.⁵ In analysing the conduct of the First Army in the 1915 campaign, it is difficult to disagree with the criticism of the war managers which has been made by Travers. War is a victory-driven business and the campaign was bereft of an operational methodology or technology capable of ending the war or even of making significant territorial gains. However, acceptance of this failure does not suggest that the war managers failed to adapt their practices to the new conditions of war; rapid alterations to the force structure, the quick acceptance of new techniques and technologies and their inclusion in offensive plans demonstrate, that at the tactical level, the war managers were conscious of the need to adapt.

It was, however, at the operational level of war where deficiencies in the war managers' decision-making, problem solving and critical thinking were most stark. There were

⁴ Sheffield, *Forgotten Victory*, 335.

⁵ Murray, *Military Adaptation in War*, 37.

four main problems. First, in not fully appreciating that the German Army would also consider their experiences and strengthen their defences accordingly, war managers failed to recognise the symbiotic nature of change in competing institutions. Second, the war managers failed to alter their prevailing operational outlook based on their collective experiences; their belief that trench warfare was a temporary state of war on the western front which dominated at the start of the campaign dominated at the end. Third, the war managers fundamentally misunderstood many of the lessons which were identified in the campaign. In particular, rather than critically evaluating what went wrong in offensive actions, the war managers tended to assume that with more men and more guns and more ammunition operational success would be a certainty. Fourth, and most importantly, the war managers' failure to establish a force-wide system for data capture, collation and consideration meant that a significant amount of new knowledge was lost to the institution. This failure to create a formal system of knowledge management resulted in an increasing reliance on informal methods of information sharing. In terms of the wider debate on the competency of the war managers, these findings tends to align with Travers' and Keegan's findings that the British high command were unable to deviate from obsolete pre-war principles when planning offensive actions. While material and manpower constraints undoubtedly negatively affected the war managers' ability to wage war in the manner they wanted, it did not affect how they considered their experiences and identified and learned lessons. In the organisational development model, the war managers occupy the crucial position, simultaneously able to promote and inhibit institutional change and dominating the learning process in the First Army in

the 1915 campaign. The small group of officers, led by Haig, determined the limits of organisational development.

This thesis has demonstrated that the 1915 campaign on the western front was considerably more complex than previous studies have acknowledged. In terms of institutional learning, it is no longer enough to assert that learning occurred or to identify the particular lessons 'learned' by a unit or formation over the course of the war. As such, the ill-defined concepts of the learning curve and learning process, which have dominated the historiography of British operational performance in the Great War for the past thirty years, have been found to be inadequate and it is suggested here that they should be rejected in favour of approaches which are based on more robust frameworks. Indeed, this thesis has shown that institutional change constitutes more than just learning lessons; rather, it is a means of identifying lessons, accepting them, codifying them and disseminating them across the army, before institutionalising them in training practices, force structure and formal doctrine. This thesis has demonstrated what can be achieved by adopting a cross-disciplinary approach and, by applying concepts from outwith the traditional purview of military history, has shown that methods which are being employed to analyse wars in the twenty-first century can be successfully applied to the study of historical conflict. The 1915 campaign demonstrated that learning lessons proved to be a difficult process for the First Army's war managers as they attempted to manage the deadlock of the western front.

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APPENDIX ONE: LIST OF WAR MANAGERS, 1915

This appendix presents a list of the war managers who served with the First Army during the 1915 campaign. It includes members of the General Staff at army, corps and divisional headquarters who had responsibility for operational planning. In this respect, it includes chiefs of staff and commanders of the Royal Artillery and Royal Engineers but not officers with responsibility for non-combatant support services, such as the directors of Medical Services or Signals. Only war managers who took an active role in planning one of the five major offensives undertaken by First Army in 1915 are included in this list.

Key

Br-Gen	Brigadier-General
BGGS	Brigadier-General, General Staff
Col	Colonel
CRA	Commander, Royal Artillery
CRE	Commander, Royal Engineers
GOC	General Officer Commanding
GSO1	General Staff Officer, Grade 1
GSO2	General Staff Officer, Grade 2
Lt-Col	Lieutenant-Colonel
Lt-Gen	Lieutenant-General
Maj-Gen	Major-General

MGGS Major-General, General Staff

FIRST ARMY HEADQUARTERS

GOC	General Sir D Haig	26 Dec 1914-22 Dec 1915
	General Sir H Rawlinson	22 Dec 1915-4 Feb 1916
	General Sir C Monro	4 Feb-7 Aug 1916
MGGS	Maj-Gen J Gough	26 Dec 1914-21 Feb 1915
	Maj-Gen R H K Butler	21 Feb-26 Dec 1915
CRA	Maj-Gen H F Mercer	15 Feb-8 Jul 1915
	Maj-Gen E A Fanshawe	8 Jul-23 Aug 1915
	Maj-Gen H F Mercer	23 Aug 1915-1918
CRE	Maj-Gen S R Rice	4 Feb-6 Nov 1915
	Maj-Gen G M Heath	6 Nov 1915-1917
GSO1	Lt-Col J Davidson	26 Dec 1914-22 Dec 1915
GSO2	Major J Charteris	26 Dec 1914-22 Dec 1915

I CORPS HEADQUARTERS

GOC	Lt-Gen Sir C Monro	26 Dec 1914-13 Jul 1915
	Lt-Gen Sir H P Gough	13 Jul 1915-1 Apr 1916
BGGS	Br-Gen R D Whigham	26 Dec 1914-16 Jul 1915
	Br-Gen A S Cobbe	16 Jul 1915-27 Jan 1916
CRA	Br-Gen R A K Montgomery	1 Jan-19 Jul 1915
	Br-Gen J F N Birch	19 Jul 1915-29 Jan 1916

CRE	Br-Gen S R Rice	4 Aug 1914-11 Apr 1915
	Br-Gen C Godby	11 April-15 Sep 1915
	Br-Gen R P Lee	15 Sep 1915-18 May 1916

III CORPS HEADQUARTERS

GOC	Lt-Gen W P Pulteney	5 Aug 1914-16 Feb 1918
BGGS	Br-Gen J P Du Cane	5 Aug 1914-25 Jan 1915
	Br-Gen G F Milne	25 Jan-25 Feb 1915
	Br-Gen A L Lynden-Bell	25 Feb-13 Jul 1915
	Br-Gen C F Romer	13 Jul 1915-1917
CRA	Br-Gen E R Phipps-Hornby	5 Aug 1914-5 Jun 1915
	Br-Gen A Stokes	5 Jun 1915-1 Apr 1916
CRE	Br-Gen F L Glubb	4 Aug 1914-9 May 1915
	Br-Gen J E Capper	9 May-14 Jul 1915
	Br-Gen A L Schreiber	14 Jul 1915-10 Nov 1917

IV CORPS HEADQUARTERS

GOC	Lt-Gen Sir Henry Rawlinson	5 Oct 1914-22 Dec 1915
	Lt-Gen Sir H Wilson	22 Dec 1915-1 Dec 1916
BGGS	Br-Gen A G Dallas	30 Dec 1914-19 Aug 1915
	Br-Gen A A Montgomery	19 Aug 1915-5 Feb 1916
CRA	Br-Gen A H Hussey	5 Oct 1914-10 Oct 1915
	Br-Gen C E D Budworth	10 Oct 1915-26 Mar 1916

CRE	Br-Gen C R Buckland	5 Oct 1914-19 Feb 1916
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XI CORPS HEADQUARTERS

GOC	Maj-Gen Earl of Cavan	29 Aug-4 Sep 1915
	Lt-Gen Sir R C B Haking	4 Sep 1915-13 Aug 1916
BGGS	Br-Gen H M de F Montgomery	29 Aug-26 Oct 1915
	Br-Gen W H Anderson	26 Oct 1915-27 Sep 1916
CRA	Br-Gen G G S Carey	12 Sep 1915-31 May 1917
CRE	Br-Gen L Jones	11 Sep 1915-27 Nov 1917

INDIAN CORPS HEADQUARTERS

GOC	General Sir James Willcocks	Oct 1914-4 Sep 1915
	Lt-Gen Sir C A Anderson	4 Sep 1915-3 Nov 1915
BGGS	Br-Gen Sir H Hudson	Oct 1914-31 Jul 1915
	Br-Gen R Charles	31 Jul 1915-3 Nov 1915
CRA	Unknown	
CRE	Unknown	

GUARDS DIVISION HEADQUARTERS

GOC	Maj-Gen Earl of Cavan	18 Aug 1915-3 Jan 1916
GSO1	Lt-Col H P Hore-Ruthven	25 Aug 1915-21 Mar 1916
CRA	Br-Gen A E Wardrop	12 Sep 1915-1 Mar 1916

CRE	Lt-Col J E Vanrenen	26 Aug-1 Oct 1915
	Lt Col A Brough	1 Oct 1915-10 Jul 1917
<u>1st Guards Brigade Headquarters</u>		
GOC	Br-Gen G P T Feilding	29 Jun-15 Dec 1915
<u>2nd Guards Brigade Headquarters</u>		
GOC	Br-Gen J Ponsonby	26 Aug 1915-19 Nov 1916
<u>3rd Guards Brigade Headquarters</u>		
GOC	Br-Gen F E Heyworth	26 Aug 1915-9 May 1916
<u>1st DIVISION HEADQUARTERS</u>		
GOC	Maj-Gen R C B Haking	19 Dec 1914-11 Sep 1915
	Maj-Gen A E A Holland	11 Sep 1915-12 June 1916
GSO1	Lt-Col E S H Nairne	3 Jan-26 Jul 1915
	Lt-Col J A Longridge	26 Jul 1915-18 Aug 1916
CRA	Br-Gen E A Fanshawe	18 Sep 1914-8 Jul 1915
	Br-Gen C E D Budworth	8 Jul-19 Oct 1915
	Br-Gen G N Cartwright	19 Oct 1915-19 Oct 1917
CRE	Lt-Col A L Schreiber	4 Aug 1914-30 Apr 1915
	Major H R Russell-Brown	30 Apr-10 May 1915
	Lt-Col H F Thuillier	10 May-2 Oct 1915
	Lt-Col H R Russell-Brown	2 Oct 1915-22 Feb 1918
<u>1st Brigade Headquarters</u>		
GOC	Br-Gen H C Lowther	23 Nov 1914-23 Aug 1915

Br-Gen A J Reddie 23 Aug 1915-18 Oct 1917

2nd Brigade Headquarters

GOC Br-Gen C B Westmacott 23 Nov 1914-5 May 1915
Br-Gen G H Thesiger 5 May-22 Aug 1915
Br-Gen J H W Pollard 22 Aug-5 Oct 1915
Br-Gen H F Thuillier 5 Oct 1915-10 Mar 1916

3rd Brigade Headquarters

GOC Br-Gen R H K Butler 23 Nov 1914-22 Feb 1915
Br-Gen H R Davies 22 Feb 1915-19 Nov 1916

2nd DIVISION HEADQUARTERS

GOC Maj-Gen H S Horne 1 Jan-5 Nov 1915
Maj-Gen W G Walker 5 Nov 1915-27 Dec 1916
GSO1 Lt-Col J E Gogarty 4 Jan-24 Feb 1915
Lt-Col L R Vaughan 24 Feb 1915-14 Apr 1916
CRA Br-Gen E M Perceval 4 Aug 1914-1 Feb 1915
Br-Gen W H Onslow 1 Feb-8 Sep 1915
Br-Gen G H Sanders 8 Sep 1915-end of war
CRE Lt-Col G P Scholfield 12 Nov 1914-20 Jun 1916

4th Brigade Headquarters

GOC Br-Gen Earl of Cavan 14 Sep 1914-29 Jun 1915
Br-Gen G P T Feilding 29 Jun-15 Dec 1915

5th Brigade Headquarters

GOC	Br-Gen A A Chichester	31 Dec 1914-13 Jul 1915
	Br-Gen C E Corkran	13 Jul 1915-15 May 1916

6th Brigade Headquarters

GOC	Br-Gen R Fanshawe	1 Jan-30 May 1915
	Br-Gen A C Daly	30 May 1915-21 Jan 1917

19th Brigade Headquarters

GOC	Br-Gen P R Robertson	19 Aug-25 Nov 1915
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7th DIVISION HEADQUARTERS

GOC	Maj-Gen Sir T Capper	27 Aug 1914-19 Apr 1915
	Maj-Gen Sir H P Gough	19 Apr-19 Jul 1915
	Maj-Gen Sir T Capper	19 Jul-27 Sep 1915
	Maj-Gen Sir H E Watts	27 Sep 1915-7 Jan 1917
GSO1	Col A R Hoskins	12 Nov 1914-25 Mar 1915
	Lt-Col J F Gathorne-Hardy	25 Mar 1915-1 Jan 1916
CRA	Br-Gen H K Jackson	3 Sep 1914-14 Mar 1915
	Br-Gen J F N Birch	14 Mar-19 Jul 1915
	Br-Gen J G Rotton	19 Jul-20 Aug 1916
CRE	Lt-Col R P Lee	6 Jan-18 Sep 1915
	Lt-Col G H Boileau	18 Sep 1915-15 Nov 1917

20th Brigade Headquarters

GOC	Br-Gen F J Heyworth	14 Nov 1914-16 Aug 1915
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Br-Gen J F H F S Trefusis 16 Aug-24 Oct 1915

Br-Gen C J Deverell 29 Oct 1915-7 Aug 1916

21st Brigade Headquarters

GOC Br-Gen H E Watts 31 Aug 1914-27 Sep 1915

Br-Gen R A Berners 27 Sep-3 Dec 1915

22nd Brigade Headquarters

GOC Br-Gen S T B Lawford 7 Sep 1914-27 Aug 1915

Br-Gen J M Steele 27 Aug 1915-9 Feb 1918

8th DIVISION HEADQUARTERS

GOC Maj-Gen F J Davies 19 Sep 1914-27 Jul 1915

Maj-Gen H Hudson 1 Aug 1915-10 Dec 1916

GSO1 Lt-Col W H Anderson 22 Sep 1914-27 Oct 1915

Lt-Col H Hill 27 Oct 1915-10 Aug 1916

CRA Br-Gen A E A Holland 30 Sep 1914-20 Jul 1915

Br-Gen G H W Nicholson 21 Jul 1915-1 Jan 1917

CRE Lt-Col W H Rotherham 30 Sep 1914-19 Feb 1915

Lt-Col P G Grant 7 Mar-9 Nov 1915

Lt-Col F G Guggisberg 9 Nov 1915-22 Jul 1916

23rd Brigade Headquarters

GOC Br-Gen R J Pinney 29 Oct 1914-27 Jun 1915

Br-Gen T R Travers-Clarke 27 Jun-7 Sep 1915

Br-Gen H D Tuson 7 Sep 1915-27 Aug 1916

24th Brigade Headquarters

GOC	Br-Gen F C Carter	29 Sep 1914-17 Mar 1915
	Br-Gen R S Oxley	17 Mar-11 Jul 1916

25th Brigade Headquarters

GOC	Br-Gen A W G Lowry Cole	8 Oct 1914-9 May 1915
	Br-Gen R B Stephens	9 May 1915-1 Apr 1916

9th DIVISION HEADQUARTERS (May-September 1915)

GOC	Maj-Gen H J S Landon	21 Jan-9 Sep 1915
	Maj-Gen G H Thesiger	9-27 Sep 1915
	Maj-Gen W T Furse	28 Sep 1915-2 Dec 1916
GSO1	Lt-Col C H De Rougemont	7 Jan-24 Jul 1915
	Lt-Col F A Buzzard	24 Jul-4 Sep 1915
	Lt-Col S E Hollond	4 Sep 1915-24 Feb 1916
CRA	Br-Gen E H Armitage	30 Sep 1914-28 Jan 1916
CRE	Lt-Col H A A Livingstone	9 May-26 Sep 1915
	Major G R Hearn	26 Sep-24 Oct 1915
	Lt-Col C M Carpenter	26 Oct 1915-27 Jan 1916

26th Brigade Headquarters

GOC	Br-Gen E G Grogan	16 Nov 1914-31 May 1915
	Br-Gen A B Ritchie	31 May 1915-5 Dec 1916

27th Brigade Headquarters

GOC	Br-Gen C D Bruce	7 Jan-26 Sep 1915
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Lt-Col H E Walshe 26 Sep 1915-26 Mar 1916

28th Brigade Headquarters

GOC Br-Gen S W Scrase-Dickins 9 Sep 1914-6 May 1916

12th DIVISION HEADQUARTERS (from September 1915)

GOC Maj-Gen F D V Wing 15 Mar-2 Oct 1915

Maj-Gen A B Scott 3 Oct 1915-26 Apr 1918

GSO1 Lt-Col C J Sackville-West 16 Jan-15 Dec 1915

CRA Br-Gen W J McLeod 29 Mar 1915-30 Jan 1916

CRE Lt-Col S F Williams 1 Oct 1914-22 Jul 1916

35th Brigade Headquarters

GOC Br-Gen C H van Straubenzee 29 Aug 1914-23 Oct 1915

Br-Gen A Solly-Flood 2 Nov 1915-8 Nov 1916

36th Brigade Headquarters

GOC Br-Gen H B Borradaile 24 Aug 1914-10 Nov 1915

Br-Gen L H Boyd-Moss 10 Nov 1915-28 Nov 1916

37th Brigade Headquarters

GOC Br-Gen C A Fowler 26 Aug 1914-5 Feb 1916

15th DIVISION HEADQUARTERS (from July 1915)

GOC Maj-Gen F W N McCracken 22 Mar 1915-17 Jun 1917

GSO1 Lt-Col J S Burnett-Stuart 3 Mar-22 Nov 1915

Lt-Col H Knox 25 Nov-14 May 1917

CRA	Br-Gen E A Lambart	3 Oct 1914-25 Aug 1915
	Br-Gen E W Alexander	25 Aug 1915-24 Apr 1916
CRE	Lt-Col G S Cartwright	15 Oct 1914-7 Mar 1916

44th Brigade Headquarters

GOC	Br-Gen M G Wilkinson	14 Sep 1914-18 Apr 1916
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45th Brigade Headquarters

GOC	Br-Gen F E Wallerstein	13 Sep 1914-11 Oct 1915
	Br-Gen E W B Green	12 Oct 1915-13 Apr 1916

46th Brigade Headquarters

GOC	Br-Gen A G Duff	9 Dec 1914-22 Jul 1915
	Br-Gen T G Matheson	29 Jul 1915-18 Mar 1917

19th DIVISION HEADQUARTERS (from July 1915)

GOC	C J M Fasken	23 Sep 1914-14 Dec 1915
GSO1	Lt-Col A S Buckle	29 Jan 1915-13 Jan 1916
CRA	Br-Gen C E Lawrie	3 Jun-25 Dec 1915
CRE	Lt Col C W Davy	10 Mar 1915-26 Mar 1916

56th Brigade Headquarters

GOC	Br-Gen B G Lewis	12 Sep 1914-17 Dec 1915
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57th Brigade Headquarters

GOC	Br-Gen L T C Twyford	14 Sep 1914-16 Jun 1916
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58th Brigade Headquarters

GOC	Br-Gen D M Stuart	8 Jul 1915-19 Jan 1916
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20th DIVISION HEADQUARTERS (from July 1915)

GOC	Maj-Gen R H Davies	20 Oct 1914-8 Mar 1916
GSO1	Lt-Col W R N Madocks	4 Feb 1915-6 Jan 1917
CRA	Br-Gen J Hotham	3 Nov 1914-24 Oct 1916
CRE	Col E R Kenyon	Nov 1914-17 Feb 1916

59th Brigade Headquarters

GOC	Br-Gen C D Shute	6 Jul 1915-4 Oct 1916
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60th Brigade Headquarters

GOC	Br-Gen J W G Roy	8 Jul 1915-5 May 1916
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61st Brigade Headquarters

GOC	Br-Gen C Ross	6 Jul-13 Nov 1915
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21st DIVISION HEADQUARTERS (from September 1915)

GOC	Maj-Gen G T Forestier-Walker	11 Apr-18 Nov 1915
GSO1	Lt-Col F E Daniell	16 Aug 1915-4 Mar 1916
CRA	Br-Gen C H Alexander	9 Nov 1914-6 Oct 1915
	Br-Gen C R Wellesley	6 Oct 1915-12 May 1917
CRE	Lt-Col C Coffin	9 Jun 1915-9 Jan 1917

62nd Brigade Headquarters

GOC	Br-Gen T G L H Armstrong	18 Sep 1914-4 Sep 1915
	Br-Gen E B Wilkinson	4 Sep 1915-11 Jun 1916

63rd Brigade Headquarters

GOC	Br-Gen N T Nickalls	31 Aug-26 Sep 1915
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Br-Gen E R Hill

7 Oct 1915-8 Jul 1916

64th Brigade Headquarters

GOC

Br-Gen G M Gloster

18 Aug 1915-5 Mar 1916

23rd DIVISION HEADQUARTERS (from September 1915)

GOC

Maj-Gen J M Babington

18 Sep 1914-18 Oct 1918

GSO1

Lt-Col A Blair

24 Jun 1915-16 Mar 1916

CRA

Br-Gen D J M Fasson

24 Jun 1915-27 Jan 1917

CRE

Lt-Col P J J Radcliffe

9 Jun-30 Sep 1915

Lt-Col A G Bremner

30 Sep 1915-6 Feb 1917

68th Brigade Headquarters

GOC

Br-Gen E Pearce Serocold

3 Jun 1915-1 Feb 1916

69th Brigade Headquarters

GOC

Br-Gen F S Derham

29 Sep 1915-8 Mar 1916

70th Brigade Headquarters (until October 1915)

GOC

Br-Gen L F Phillips

11 Sep-5 Nov 1915

24th Brigade Headquarters (from October 1915)

GOC

Br-Gen R S Oxley

1 Aug 1915-16 Jul 1916

24th DIVISION HEADQUARTERS (from September 1915)

GOC

Maj-Gen Sir J S Ramsay

19 Sep 1914-3 Oct 1915

Maj-Gen J E Capper

3 Oct 1915-12 May 1917

GSO1

Lt-Col C G Stewart

16 May 1915-23 Feb 1916

CRA	Br-Gen Sir G V Thomas	9 Nov 1914-26 Oct 1915
	Br-Gen L M Phillpotts	26 Oct 1915-8 Sep 1916

CRE	Lt-Col A J Craven	25 Jul 1915-12 Feb 1917
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71st Brigade Headquarters (until October 1915)

GOC	Br-Gen M T Shewan	28 Aug-11 Oct 1915
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72nd Brigade Headquarters

GOC	Br-Gen B R Mitford	19 Sep 1914-14 Mar 1917
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73rd Brigade Headquarters

GOC	Br-Gen W A Oswald	19 Sep 1914-26 Sep 1915
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	Br-Gen R G Jelf	26 Sep 1915-9 Nov 1916
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28th DIVISION HEADQUARTERS (from September 1915)

GOC	Maj-Gen E S Bulfin	17 Dec 1914-11 Oct 1915
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	Maj-Gen C J Briggs	12 Oct 1915-18 May 1916
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GSO1	Lt-Col R H Hare	27 May 1915-12 Nov 1916
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CRA	Br-Gen D Arbuthnot	9 May 1915-14 Jan 1916
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CRE	Lt-Col A R Winslowe	25 May-4 Oct 1915
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	Lt-Col E S Sandys	4 Oct 1915-end of war
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83rd Brigade Headquarters

GOC	Br-Gen H S L Ravenshaw	19 May 1915-18 May 1916
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84th Brigade Headquarters

GOC	Br-Gen L J Bols	24 Feb 1915-7 Sep 1916
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85th Brigade Headquarters

GOC Br-Gen B C M Carter 29 Sep 1915-24 Oct 1917

46TH DIVISION HEADQUARTERS (from September 1915)

GOC Maj-Gen E J M Stuart-Wortley 1 Jun 1914-6 Jul 1916

GSO1 Lt-Col P W Game 18 Jul 1915-19 Mar 1916

CRA Br-Gen H M Campbell 1 Aug 1914-13 Mar 1918

CRE Br-Gen C V Wingfield-Stratford 19 Oct 1914-2 May 1918

137th Brigade Headquarters

GOC Br-Gen E Feetham 2 Apr 1915-18 May 1916

138th Brigade Headquarters

GOC Br-Gen G C Kemp 15 Aug 1915-29 Apr 1917

139th Brigade Headquarters

GOC Br-Gen C T Shipley 9 Sep 1911-27 May 1917

47th DIVISION HEADQUARTERS

GOC Maj-Gen C St L Barter 3 Sep 1914-28 Sep 1916

GSO1 Lt-Col W Thwaites 17 Feb 1912-1 Jun 1915

 Lt-Col W P Hore-Ruthven 1 Jun-20 Aug 1915

 Lt-Col B Burnett Hitchcock 20 Aug 1915-15 Jun 1916

CRA Br-Gen J C Wray 1 Apr 1912-5 Feb 1916

CRE Col A H Kenney 1 Sep 1914-30 Jul 1915

 Lt-Col S H A Crookshank 30 Jul 1915-27 Nov 1916

140th Brigade Headquarters

GOC Br-Gen C J Cuthbert 26 Nov 1914-12 Jul 1916

141st Brigade Headquarters

GOC Br-Gen G C Nugent 29 Aug 1914-2 Jun 1915

 Br-Gen W Thwaites 2 Jun 1915-5 Jul 1916

142nd Brigade Headquarters

GOC Br-Gen C S H-D-Willoughby 11 Apr 1912-10 Jun 1915

 Lt-Col W G Simpson 10 Jun-14 Aug 1915

 Br-Gen F G Lewis 14 Aug 1915-26 Dec 1916

48th DIVISION HEADQUARTERS (June-July 1915)

GOC Maj-Gen R Fanshawe 31 May 1915-20 Jun 1918

GSO1 Lt-Col J S J Baumgartner 20 Apr 1915-2 Apr 1916

CRA Br-Gen C M Ross-Johnson 11 May 1915-30 January 1916

CRE Lt-Col H J M Marshall 19 Apr 1915-27 Feb 1917

143rd Brigade Headquarters

GOC Unknown

144th Brigade Headquarters

GOC Unknown

145th Brigade Headquarters

GOC Unknown

49th DIVISION HEADQUARTERS (10 April-31 May 1915)

GOC Maj-Gen T S Baldock 19 Sep 1914-17 Jul 1915

GSO1	Lt-Col J R G Tulloch	14 Jan-30 Apr 1915
	Lt-Col C H Harrington	30 Apr-13 Sep 1915
CRA	Br-Gen S D Browne	1 Jan 1913-3 Jun 1915
CRE	Lt-Col R B Heywood	3 Nov 1914-26 Jul 1915
<u>146th Brigade Headquarters</u>		
GOC	Br-Gen F A MacFarlan	25 Nov 1913-20 Dec 1915
<u>147th Brigade Headquarters</u>		
GOC	Br-Gen E F Brereton	11 May 1912-13 Sep 1916
<u>148th Brigade Headquarters</u>		
GOC	Br-Gen R Dawson	1 Apr 1912-7 Jun 1916
<u>51st DIVISION HEADQUARTERS (10 May-27 June 1915)</u>		
GOC	Maj-Gen R Bannatine-Allason	27 Aug 1914-24 Sep 1915
GSO1	Lt-Col G R Cory	4 May-19 Jun 1915
	Lt-Col I Stewart	19 Jun 1915-11 Nov 1916
CRA	Br-Gen H A Brendon	15 May 1913-8 Jul 1915
CRE	Lt-Col C L Spencer	22 Jan 1915-25 May 1915
	Lt-Col H W Weekes	25 May 1915-23 Mar 1916
<u>152nd Brigade Headquarters</u>		
GOC	Br-Gen W C Ross	13 Nov 1914-9 Jul 1916
<u>153rd Brigade Headquarters</u>		
GOC	Br-Gen D Campbell	1 Feb 1915-6 May 1917
<u>154th Brigade Headquarters</u>		

GOC

Br-Gen G L Hibbert

19 Apr-1 Oct 1915