

**‘Putting Knowledge in Power’: Learning and Innovation in  
the British army of the First World War**

**by**

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## ABSTRACT

Learning is critical to battlefield success. *Ceteris paribus*, victory becomes more likely when militaries adapt faster and more effectively than their opponents. This thesis examines the effectiveness of the British army's process for learning and adaptation across six different operational theatres during the First World War. Using a series of case studies, it considers how the army shared knowledge, responded to change, and integrated newcomers. It finds that the army's attitudes towards learning were more thoroughgoing than hitherto thought. With its pre-war ethos and increased fluidity in wartime, the army displayed organisational and cultural flexibility across all theatres, encouraging a culture of innovation through the promotion of informal learning and tactical diversity.

In a broader sense, the thesis does three things. First, it moves beyond the standard Western Front narrative of learning in the First World War, offering a more rounded examination of the army's experience. Secondly, it highlights the complexity of military learning, considering that which occurs institutionally, between formations, and between theatres. Finally, it reflects on the importance of an organisation's ethos when faced with uncertainty. This thesis, therefore, offers a point of departure for future studies of traditionally bureaucratic institutions and their ability to learn and innovate.

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## ABBREVIATIONS

AAQMG	Assistant Adjutant Quartermaster-General
AIF	Australian Imperial Force
AIT	Assistant Inspector of Training
ANZAC	Australian and New Zealand Army Corps
APSS	Army Printing and Stationery Service
ASC	Army Service Corps
ASE	Amalgamated Society of Engineers
AWM	Australian War Memorial
BEF	British Expeditionary Force
BGGS	Brigadier-General, General Staff
BGRA	Brigadier-General, Royal Artillery
BM	Brigade Major
BSF	British Salonika Force
CBSO	Counter-Battery Staff Officer
CDS	Central Distribution Section
CEF	Canadian Expeditionary Force
CGS	Chief of the General Staff
CinC	Commander-in-Chief
CIGS	Chief of the Imperial General Staff
CMF	Commonwealth Military Forces
DDW	Deputy Director of Works
DFW	Director of Fortifications and Works
DGT	Director-General of Transportation
DST	Director of Supplies and Transport
EEF	Egyptian Expeditionary Force

ERSC	Engineer and Railway Staff Corps
ESR	Egyptian State Railways
<i>FSR</i>	<i>Field Service Regulations</i>
GHQ	General Headquarters
GOC	General Officer Commanding
GRO	General Routine Order
GSO	General Staff Officer
IAE	Institution of Automobile Engineers
ICE	Institution of Civil Engineers
IEE	Institution of Electrical Engineers
IEF	Italian Expeditionary Force
IGC	Inspector-General of Communications
IGF	Inspector-General of the Forces
IGT	Inspector-General of Training
IMechE	Institution of Mechanical Engineers
IWM	Imperial War Museum
IWT	Inland Water Transport
LHCMA	Liddell Hart Centre for Military Archives
LSE	London School of Economics
MEF	Mediterranean Expeditionary Force
MGGS	Major-General, General Staff
MGO	Master-General of the Ordnance
MGRA	Major-General, Royal Artillery
NAA	National Archives of Australia
NAM	National Army Museum
NCO	Non-Commissioned Officer
NZEF	New Zealand Expeditionary Force



OR	Other Rank
PWD	Public Works Department
<i>psc</i>	<i>passed Staff College</i>
QMG	Quartermaster-General
RAI	Royal Artillery Institution
RE	Royal Engineers
REC	Railway Executive Committee
RFC	Royal Flying Corps
RIEC	Royal Indian Engineering College
RUSI	Royal United Services Institute
SS	Stationery Service
TNA	The National Archives of the United Kingdom

## NOTE ON STYLE

Where possible, I have retained the original spelling and punctuation of primary source material. I have also refrained from using *sic* where possible, as such usage would obscure the significance of some of the extracts. Editorial interventions have been used to explain certain military abbreviations, i.e. G[eneral] O[fficer] C[ommanding]. Editorial omissions from original source material are denoted by use of an ellipsis (...).

When referring to an individual's rank and appointment, I have taken the decision to use the rank and appointment they held at the time of writing. This explains why certain individuals hold different ranks and positions throughout the course of this study.

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## INTRODUCTION

The man in the street might do well to consider whether the great departments of the Government, such as the War Office and the Army, should for ever be entrusted to men who have not even a nodding acquaintance with the business which their departments have to transact, the business of war. Success in that as in other business depends on putting knowledge in power.<sup>1</sup>

Spenser Wilkinson

There was a rigidity and restrictiveness about the methods employed which allowed no play for initiative, imagination and inventiveness... The men on the heights offered no encouragement or chances to genius down below.<sup>2</sup>

David Lloyd George

Learning is critical to battlefield success. *Ceteris paribus*, victory becomes more likely when militaries adapt their tactics, techniques, and procedures faster than their opponents in response to changing operational environments. However, the two quotations above highlight the difficulty of promoting knowledge, change, and innovation in the British military. To put knowledge in power, as Wilkinson advocated, requires a culture that both tolerates and promotes the elevation of expertise; a leadership that recognises and acts on initiatives that enhance the army's fighting capabilities; and a structure that allows for the dissemination and sharing of knowledge in a systematic way. For some, such as Lloyd George, the army was not hardwired to meet any of these requirements. In essence, it was a bureaucracy: rigid, hierarchical, bound by rules, and averse to change.

This thesis will examine the army's process for learning and adaptation across six different operational theatres with the aim of answering the following question: how effective was the army at learning and adapting both on and beyond the Western Front during the First World War? Using a series of case studies to investigate how the army shared knowledge, how it responded to change, and how it integrated newcomers, the thesis will demonstrate that the army's attitudes towards learning were more thoroughgoing than hitherto thought. There is a tendency to limit discussion of British military learning in the First World War to the Western

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<sup>1</sup> S. Wilkinson, *Lessons of the War* (London: Archibald Constable and Co., 1900), p. 47.

<sup>2</sup> D. Lloyd George, *War Memoirs*, II (2 vols., London: Odhams Press, 1938), p. 2040.

Front and the end result of learning, namely combat effectiveness. This results in a misunderstanding of the army's wider process for learning. If we fail to understand how the army learned, then we cannot truly understand how the army changed. This thesis goes beyond earlier studies, considering multiple theatres and examining different aspects of the army's process for learning to determine whether the army was institutionally capable of learning from its myriad experiences and to what extent it put knowledge in power.

For historians, the military's ability to learn, change, and innovate has proved of great interest, generating considerable scholarship that sits under the umbrella of 'military innovation studies'. This field of work has generated four different models: top-down innovation, bottom-up innovation, adaptation, and horizontal innovation. Before exploring these four strands of scholarship, some terms used in the literature require definition, namely transformation, innovation, and adaptation. Transformation, according to Paul Davis, means a "profound change" in military affairs.<sup>3</sup> It does not necessarily imply rapid or across-the-board change, but the changes made should be 'dramatic rather than mere improvements on the margin such as modestly better aircraft, tanks, or ships'. Transformation is viewed as a continuous process with 'no simple end point'.<sup>4</sup> Similar to transformation is the idea of innovation. Indeed, Robert Foley, Helen McCartney, and Stuart Griffin have noted that transformation is simply military innovation by another name.<sup>5</sup> Unlike transformation, innovation has a fixed end point. It can be defined as major change, such as a new way of fighting or the creation of a new combat arm, which is institutionalised in new doctrine, new structures, or new technologies.<sup>6</sup> According to Stephen Rosen, changes that leave the 'essential workings of that organization unaltered do not

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<sup>3</sup> P. K. Davis, 'Military Transformation? Which Transformation and What Lies Ahead?' in S. J. Cimbala (ed.), *The George W. Bush Defense Program: Policy, Strategy and War* (Dulles, VA: Potomac Books, 2010), p. 11.

<sup>4</sup> Davis, 'Military Transformation?', p. 11.

<sup>5</sup> R. T. Foley, H. McCartney, and S. Griffin, "'Transformation in Contact': Learning the Lessons of Modern War", *International Affairs* 87 (2) (2011), p. 253.

<sup>6</sup> S. P. Rosen, *Winning the Next War: Innovation and the Modern Military* (London: Cornell University Press, 1991), pp. 7-8.

count as innovation'.<sup>7</sup> Unlike innovation, adaptation is seen in terms of incremental change and usually relates to change in wartime. Adaptation, according to Theo Farrell, can be defined as a 'change to tactics, techniques, or existing technologies to improve operational performance'.<sup>8</sup> For Williamson Murray, the difference is not so much about the scale of change, but the type of environment with innovation occurring in peacetime, and adaptation in time of war.<sup>9</sup> In this thesis, Farrell's distinction between innovation and adaptation will be used.

Early military innovation studies aligned with a top-down approach – the first strand of scholarship. Focused on innovation in peacetime, particularly during the interwar period, this approach viewed the military as bureaucratic, rigidly hierarchical, and change resistant. In essence, these studies reinforced tenets of Max Weber's view of complex organisations: that absence of innovation is the natural state for a bureaucracy. The military was seen as incapable of changing on its own. According to Rosen and Barry Posen, it was 'designed not to change', and required a 'kick in the pants' if it was to innovate.<sup>10</sup> Instead, it needs to be goaded into change through top-down interventions. These interventions could occur in three ways. First, as advanced by Posen, Kimberley Zisk, and Deborah Avant, through a civil-military partnership with statesmen pushing, or working in conjunction with, military leaders or 'mavericks'.<sup>11</sup> This civil-military model underpinned the USA's 'transformation' programme, which reflected an attitude that civilian management 'could and should wrench hidebound military bureaucracies around to a new way of fighting'.<sup>12</sup> Secondly, innovation could occur through the influence of senior military leaders, as argued by Rosen.<sup>13</sup> For Rosen, externally imposed change is likely to

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<sup>7</sup> Rosen, *Winning the Next War*, p. 8.

<sup>8</sup> T. G. Farrell, 'Improving in War: Military Adaptation and the British in Helmand Province, Afghanistan, 2006-2009', *Journal of Strategic Studies* 33 (4) (2010), p. 569.

<sup>9</sup> W. Murray, *Military Adaptation in War* (Cambridge: Cambridge University Press, 2011), pp. 2-5.

<sup>10</sup> Rosen, *Winning the Next War*, p. 2; B. Posen, *The Sources of Military Doctrine: France, Britain and Germany Between the World Wars* (Ithaca, NY: Cornell University Press, 1984), p. 226.

<sup>11</sup> Posen, *The Sources of Military Doctrine*; K. Zisk, *Engaging the Enemy: Organization Theory and Soviet Military Innovation, 1955-1991* (Princeton, NJ: Princeton University Press, 1993); D. Avant, *Political Institutions and Military Change: Lessons from Peripheral Wars* (Ithaca, NY: Cornell University Press, 1994).

<sup>12</sup> J. A. Russell, *Innovation, Transformation and War: Counterinsurgency Operations in Anbar and Ninewa Provinces, 2005-2007* (Stanford, CA: Stanford University Press, 2011), pp. 10-11, 15, 17.

<sup>13</sup> Rosen, *Winning the Next War*.

fail. Instead, the alignment of senior military leaders, mid-level officers, and promotion pathways is key.<sup>14</sup> Finally, through a process of cultural change, whether ‘planned’ by senior military figures, through external shocks, or by emulation of other forces. Theo Farrell, Terry Terriff, and Elizabeth Kier have pioneered this particular cultural model of top-down innovation.<sup>15</sup> All these studies are concerned with organisation-wide revolutions, disruptive technological change, and elite-driven politics.<sup>16</sup> As we can see, the top-down approach argues that only civilians or senior military leaders can effect innovation. It does not focus on the role of practitioners. By focusing on peacetime, researchers also ignore the ‘adapt or die’ dilemma that accompanies the victory imperative of war.

This top-down focus led Eliot Cohen and Adam Grissom to call for research into ‘bottom-up’ innovation – the second strand of scholarship. They argued that ‘military people, technology and particular tactical circumstances’ drove innovation.<sup>17</sup> Emphasis was placed on military practitioners and their ability to drive innovation from the bottom up. Unlike the top-down view of militaries as Weberian bureaucracies, this bottom-up approach instead aligned with the behaviourist school of management, pioneered by Chester Barnard. Scholars recognised that human behaviour, particularly lower down the hierarchy, was an important determinant of organisational behaviour.<sup>18</sup>

Scholars such as Farrell soon recast this bottom-up approach as ‘military adaptation’ – the third strand of scholarship. Adaptation studies have tended to focus on modern, Western militaries during counterinsurgency operations in order to distil lessons for future conflicts.

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<sup>14</sup> *Ibid.*, pp. 20-21.

<sup>15</sup> T. G. Farrell and T. Terriff (eds.), *The Sources of Military Change* (Boulder, CO: Lynne Rienner, 2002); E. Kier, *Imagining War: French and British Military Doctrine Between the Wars* (Princeton, NJ: Princeton University Press, 1997).

<sup>16</sup> N. A. Kollars, ‘War’s Horizon: Soldier-Led Adaptation in Iraq and Vietnam’, *Journal of Strategic Studies* (Published Online 3 January 2015. DOI: 10.1080/01402390.2014.971947), p. 5 [Accessed 4 January 2015].

<sup>17</sup> E. A. Cohen, ‘Change and Transformation in Military Affairs’, *Journal of Strategic Studies* 27 (3) (2004), pp. 395-407; A. Grissom, ‘The Future of Military Innovation Studies’, *Journal of Strategic Studies* 29 (5) (2006), pp. 905-934.

<sup>18</sup> See, for example, M. Crozier, *The Bureaucratic Phenomenon*, trans. M. Crozier (Chicago, IL: University of Chicago Press, 1964), p. 162; F. J. Roethlisberger and W. J. Dickson, *Management and the Worker* (Cambridge, MA: Harvard University Press, 1968 [1938]).

Such research has drawn on the fundamental tenets of organisational learning theory to understand better how militaries respond to change in wartime. Key themes include the relationship between informal and formal methods of learning, the importance of organisational flexibility and culture, as well as the possibility of horizontal learning that ultimately eschews the vectored language of top-down and bottom-up.<sup>19</sup> These key themes will be discussed in turn.

An effective relationship between informal and formal methods of learning is necessary for organisational learning to take place. Before unpacking this relationship, some terms require definition. Though it has generated a wealth of literature, there is little consensus on what is meant by ‘organisational learning’.<sup>20</sup> For the purposes of this study, however, Marlene Fiol and Marjorie Lyles’ definition will be used, which states that organisational learning is ‘the process of improving actions through better knowledge and understanding’.<sup>21</sup> Informal and formal learning are easier to define. Informal learning is that which occurs through practice and experience. It is tacit in nature, often unintended and opportunistic.<sup>22</sup> It is also highly personalised, taking place between individuals. Formal learning, on the other hand, is ‘institutionally sponsored’, occurring in an organised and structured context.<sup>23</sup> However, as Daniel Kim notes, even in the most bureaucratic institutions, there is much more that is unwritten, unsaid, and informal in nature.<sup>24</sup> The relationship between informal and formal methods has been the focus of research by Keith Bickel, Robert Foley, Helen McCartney and

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<sup>19</sup> Studies on military adaptation include T. G. Farrell, ‘Improving in War’, pp. 567-594; S. Catignani, “‘Getting COIN’ at the Tactical Level in Afghanistan: Reassessing Counter-Insurgency Adaptation in the British Army’, *Journal of Strategic Studies* 35 (4) (2012), pp. 513-539; R. T. Foley, ‘A Case Study in Horizontal Military Innovation: The German Army, 1916-1918’, *Journal of Strategic Studies* 35 (6) (2012), pp. 799-827; Kollars, ‘War’s Horizon’, pp. 1-25; K. A. Harkness and M. Hunzeker, ‘Military Maladaptation: Counterinsurgency and the Politics of Failure’, *Journal of Strategic Studies* (Published Online 3 January 2015. DOI: 10.1080/01402390.2014.960078), p. 5 [Accessed 4 January 2015].

<sup>20</sup> See D. H. Kim, ‘The Link between Organizational and Individual Learning’, *Sloane Management Review* (Fall, 1993), p. 37; M. M. Crossan, H. W. Lane, and R. E. White, ‘An Organizational Learning Framework: From Intuition to Institution’, *Academy of Management Review* 24 (3) (1999), p. 522.

<sup>21</sup> C. M. Fiol and M. A. Lyles, ‘Organizational Learning’, *Academy of Management Review* 10 (4) (1985), p. 803.

<sup>22</sup> M. Eraut, ‘Informal Learning in the Workplace’, *Studies in Continuing Education* 26 (2) (2004), p. 250.

<sup>23</sup> D. McGuire and C. Gubbins, ‘The Slow Death of Formal Learning: A Polemic’, *Human Resource Development Review* 9 (3) (2010), p. 250.

<sup>24</sup> Kim, ‘Organizational and Individual Learning’, p. 45.



Stuart Griffin, Paddy O'Toole and Steven Talbot, and Chad Serena.<sup>25</sup> Though recognising the importance of informal methods as key sites for adaptation, they warn against the danger of failing to integrate them into the formal learning system.<sup>26</sup> This can lead to 'adaptation traps' where valuable, often low level, knowledge is lost to the military. More recently, Sergio Catignani and Nina Kollars have further explored this problem in their respective research on the British army in Afghanistan and the US army in Vietnam.<sup>27</sup> Catignani, for example, argues that 'lessons identified and practices employed by tactical units... often a result of ad hoc change or of transient and informal mechanisms has made it very difficult for... adaptation to convert into innovation'.<sup>28</sup> Kollars goes further and suggests that failure to capture or harness this informal learning 'works against a service's organizational memory', increasing the likelihood of solutions being 'lost, reinvented, or duplicated under the fog of war'.<sup>29</sup>

Though organisational learning is reliant on the interaction between formal and informal methods, it also requires an environment and culture that is flexible enough to support it. Flexibility is an important theme in adaptation scholarship. Rather than seeing the military as rigid and inflexible, some studies have posited that, in response to wartime situations, it becomes far more decentralised and fluid. It is not rigidity that undermines efforts to change, but rather the military's struggle with 'the knowledge generated by its practitioners'.<sup>30</sup> Doubler provided one of the earliest studies on the importance of flexibility and this has found support from John Buckley, James Russell, Raphael Marcus, and Foley.<sup>31</sup> Russell in particular makes a

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<sup>25</sup> K. B. Bickel, *Mars Learning: The Marine Corps' Development of Small Wars Doctrine, 1915-1940* (Boulder, CO: Westview Press, 2001); Foley *et al.*, "'Transformation in Contact'"; P. O'Toole and S. Talbot, 'Fighting for Knowledge: Developing Learning Systems in the Australian Army', *Armed Forces and Society* 37 (1) (2011), pp. 42-67; C. C. Serena, *A Revolution in Military Adaptation: The US Army in the Iraq War* (Washington DC: Georgetown University Press, 2011).

<sup>26</sup> Foley *et al.*, "'Transformation in Contact'", pp. 269-270; O'Toole and Talbot, 'Fighting for Knowledge', pp. 61-62; Serena, *Revolution in Military Adaptation*, pp. 113-114.

<sup>27</sup> S. Catignani, 'Coping with Knowledge: Organizational Learning in the British Army?', *Journal of Strategic Studies* 37 (1) (2013), pp. 30-64; Catignani, "'Getting COIN'"; Kollars, 'War's Horizon'.

<sup>28</sup> Catignani, "'Getting COIN'", p. 536.

<sup>29</sup> Kollars, 'War's Horizon', p. 20.

<sup>30</sup> *Ibid.*, p. 6.

<sup>31</sup> M. D. Doubler, *Closing with the Enemy: How GIs Fought the War in Europe, 1944-1945* (Lawrence, KS: University Press of Kansas, 1994); J. Buckley, *British Armour in the Normandy Campaign 1944* (London: Routledge, 2004), pp. 9-11, 92-98; J. Buckley, 'Tackling the Tiger: The Development of British

compelling argument in his study of the US army's adaptation in Iraq, showing how 'a collection of hierarchically structured organizations' became the 'kind of agile and adaptive structures thought to exist only in certain parts of the private sector'.<sup>32</sup> Foley, on the other hand, has shown the importance of learning cultures to British and German adaptation during the First World War. The British, for example, made more effective use of top-down interventions, contrasted with the bottom-up and horizontal approach of the German army. He goes on to suggest that the British army was more likely to use 'non-formal' methods owing to its organisational culture.<sup>33</sup> However, this thesis will suggest that in important ways Foley's views need to be revised.

The importance of culture has also been considered through the lens of the 'learning organisation'. Rooted in the work of management theorists, Peter Senge and Chris Argyris,<sup>34</sup> the 'learning organisation' concept has been appropriated by individuals such as Downie and John Nagl.<sup>35</sup> In his study of US and British learning in Vietnam and Malaya respectively, Nagl argued that the US army's attempts to learn were thwarted by its unshakeable organisational culture.<sup>36</sup> Conversely, the British army had a culture that supported learning and ultimately succeeded in Malaya because it was a 'learning organisation'. Though Nagl's research is highly influential, it has drawn criticism for its use of the 'learning organisation' concept. There is little

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Armoured Doctrine for Normandy 1944', *Journal of Military History* 74 (2010), p. 1182; Russell, *Innovation, Transformation and War*; R. Marcus, 'Military Innovation and Tactical Adaptation in the Israel-Hizballah Conflict: The Institutionalization of Lesson-Learning in the IDF', *Journal of Strategic Studies* (Published Online 1 August 2014. DOI: 10.1080/01402390.2014.923767), pp. 1-29 [Accessed 2 August 2014]; R. Foley, 'Dumb Donkeys or Cunning Foxes? Learning in the British and German Armies during the Great War', *International Affairs* 90 (2) (2014), pp. 279-298.

<sup>32</sup> Russell, *Innovation, Transformation and War*, p. 211.

<sup>33</sup> Foley, 'Dumb Donkeys', pp. 291-295.

<sup>34</sup> See P. Senge, *The Fifth Discipline: The Art and Practice of the Learning Organization* (London: Century Business, 1992); C. Argyris, *On Organizational Learning* (Oxford: Blackwell Business, 1999).

<sup>35</sup> Downie, *Learning from Conflict*; J. Nagl, *Learning to Eat Soup with a Knife: Counterinsurgency Lessons from Malaya and Vietnam* (London: University of Chicago Press, 2005 [2002]), pp. 115-116, 217.

<sup>36</sup> For a counterpoint to this aspect of Nagl's argument, see G. A. Daddis, 'Eating Soup with a Spoon: The U.S. Army as a 'Learning Organization' in the Vietnam War', *Journal of Military History* 77 (2013), pp. 229-254.

consensus as to what constitutes such an organisation.<sup>37</sup> Scholars such as Farrell, Catignani, and David French have argued that the British army has tended to engage in campaign-specific learning cycles.<sup>38</sup> Given that one of the hallmarks of a ‘learning organisation’ is its sustained ability to learn and adapt, scholars such as French and Victoria Nolan have examined the army’s operations over a longer period of time to test the validity of such statements.<sup>39</sup>

By focusing on the culture and organisational make up of the military, studies have begun to move away from the explicitly vectored language of innovation. As Matthew Ford has argued, is it necessary and right to privilege the voice from below when seeking to understand the army’s learning process?<sup>40</sup> Recent studies have pursued this line of enquiry either through research into horizontal innovation, or by acknowledging the interplay between vectored approaches. This represents the fourth and final strand of military innovation scholarship. Foley, in particular, has pioneered research in this area with his study on horizontal innovation in the German army of the First World War.<sup>41</sup> He contends that the Germany army was able to innovate extremely rapidly owing to its predilection for horizontal learning between units, aided by the production of low level ‘lessons learned’ reports. Although Foley’s research breaks new ground, it does not fully examine how the process takes place. Given that Army Group Rupprecht made it ‘a requirement’ for all divisions to complete these reports, with German high command disseminating them, it is questionable as to how horizontal the method actually was.<sup>42</sup> Though supporting Foley’s work, Marcus and Kollars take a more complete approach to horizontal learning, viewing it as part of the interaction between top-down and bottom-up

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<sup>37</sup> See C. Hughes and M. Tight, ‘The Myth of the Learning Society’, *British Journal of Educational Studies* 43 (3) (1995), p. 299; S. B. T. Mitchell, ‘An Inter-Disciplinary Study of Learning in the 32nd Division on the Western Front, 1916-1918’, Unpublished PhD Thesis, University of Birmingham, 2013, pp. 21-22.

<sup>38</sup> Farrell, ‘Improving in War’, p. 591; D. French, *British Way in Counter-Insurgency, 1945-67* (Oxford: Oxford University Press, 2011), p. 6; Catignani, “‘Getting COIN’”, pp. 536-537.

<sup>39</sup> French, *British Way in Counter-Insurgency*; V. Nolan, *Military Leadership and Counterinsurgency: The British Army and Small War Strategy since World War 2* (London: I. B. Tauris, 2012).

<sup>40</sup> M. Ford, ‘Learning the Right Lessons: Military Transformation in Crisis and the Future of Britain’s Armed Forces’, in M. LoCicero, R. Mahoney, and S. Mitchell (eds.), *A Military Transformed? Adaptation and Innovation in the British Military, 1792-1945* (Solihull: Helion, 2014), p. 258.

<sup>41</sup> Foley, ‘Horizontal Military Innovation’.

<sup>42</sup> *Ibid.*, p. 815.

innovation. Marcus, for example, highlights the ‘dynamic interplay’ between these approaches, while Kollars suggests that adaptation and innovation need not be vectored at all and that a military’s ‘tolerance of creativity’ is enough.<sup>43</sup> This ‘tolerance’ highlights the importance of organisational culture and, as this thesis will argue, ethos as drivers of learning and adaptation.

While the importance of informal and formal processes and organisational flexibility have been considered in military innovation studies, they have not been the subject of such sustained analysis in studies on the British army of the First World War. Foley’s examination of British and German learning is an exception to this rule, while scholars such as Michel Goya and Christian Stachelbeck have considered such processes within the French and German armies respectively.<sup>44</sup> Both Goya and Stachelbeck highlight the importance of each army’s pre-war ethos as an important precursor to innovation.<sup>45</sup> On the whole, though, studies relating to learning and adaptation in the British army have shied away from such analyses; rather, there is a tendency to focus on the emergence of new technologies, or increased combat effectiveness. This bias has dominated academic scholarship for the last thirty years with an almost exclusive focus on the Western Front.

Studies that consider learning in the army have broadly aligned with the concept of a ‘learning curve’. This concept is used to describe the evolution of the army from a small, colonial *gendarmerie* in 1914 to a mass citizen army capable of waging sophisticated operations in industrial warfare in 1918. Historians associated with the learning curve have used the term to convey the belief that the army learned from its mistakes at the operational and tactical levels of war, attaining a high level of proficiency that manifested itself during the Hundred Days offensive of 1918. Studies that laid the groundwork for the learning curve include John Terraine’s *Douglas Haig: The Educated Soldier*, *White Heat*, and Shelford Bidwell and

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<sup>43</sup> Marcus, ‘Institutionalization of Lesson-Learning’, p. 1; Kollars, ‘War’s Horizon’, p. 21.

<sup>44</sup> M. Goya, *La Chair et L’Acier* (Paris: Tallandier, 2004); C. Stachelbeck, ‘Strategy “in a microcosm”: Processes of Tactical Learning in a WW1 German Infantry Division’, *Journal of Military and Strategic Studies* 13 (4) (2011), pp. 1-20.

<sup>45</sup> Goya, *La Chair*, pp. 200, 417; Stachelbeck, ‘Processes of Tactical Learning’, p. 20.

Dominick Graham's *Fire-Power*.<sup>46</sup> These three works challenged the 'lions led by donkeys' view of the war, demonstrating that the army 'learned from its experience' through its adoption of new tactics and weaponry.<sup>47</sup> *Fire-Power* was particularly influential in this respect. According to Gary Sheffield and John Bourne, it inaugurated a 'new era of scholarship', which 'concentrated on the Army as an institution'.<sup>48</sup> Early examples of this new scholarship included works by Bill Rawling and Paddy Griffith.<sup>49</sup> Griffith's work in particular provided a counterblast to suggestions by historians such as Timothy Lupfer and Bruce Gudmundsson that the Germany army was far more tactically progressive than the British.<sup>50</sup> However, not all works at this time were as effusive in their praise. Tim Travers, for example, was more critical in his analyses.<sup>51</sup> Though acknowledging that the British army 'appeared to be more flexible tactically', he argued that its officer corps found the 'contours' of the Western Front 'too difficult... to perceive clearly, or to understand, or to which they could adapt'.<sup>52</sup> In their biography of General Sir Henry Rawlinson, Robin Prior and Trevor Wilson, though recognising the forward strides made by the army in the application of firepower and of 'hard learned lessons and mounting experience', were generally critical of British generalship.<sup>53</sup>

Building on these early studies, scholarship has expanded down a number of lines of enquiry, tending to focus on operational and tactical considerations, including studies on command and generalship; new technologies such as artillery, gas, and tanks; and the important

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<sup>46</sup> J. Terraine, *Douglas Haig: The Educated Soldier* (London: Hutchinson, 1963); J. Terraine, *White Heat: The New Warfare 1914-1918* (London: Sidgwick and Jackson, 1982); S. Bidwell and D. Graham, *Fire-Power: The British Army Weapons and Theories of War 1904-1945* (reprint, Barnsley: Pen and Sword, 2004 [1982]).

<sup>47</sup> Bidwell and Graham, *Fire-Power*, p. 65.

<sup>48</sup> G. Sheffield and J. Bourne (eds.), *Douglas Haig: War Diaries and Letters 1914-1918* (London: Weidenfeld and Nicolson, 2005), p. 1.

<sup>49</sup> B. Rawling, *Surviving Trench Warfare: Technology and the Canadian Corps, 1914-1918* (Toronto, ON: University of Toronto Press, 1992); P. Griffith, *Battle Tactics of the Western Front: The British Army's Art of Attack 1916-18* (London: Yale University Press, 2000 [1994]).

<sup>50</sup> T. T. Lupfer, *The Dynamics of Doctrine: The Change in German Tactical Doctrine during the First World War* (Fort Leavenworth, KS: Combat Studies Institute, 1981); B. I. Gudmundsson, *Stormtroop Tactics: Innovation in the German Army, 1914-1918* (Westport, CT: Praeger, 1989).

<sup>51</sup> T. Travers, *The Killing Ground: The British Army, the Western Front, and the Emergence of Modern War 1900-1918* (reprint, Barnsley: Pen and Sword, 2003 [1987]).

<sup>52</sup> *Ibid.*, pp. 257, 253.

<sup>53</sup> R. Prior and T. Wilson, *Command on the Western Front: The Military Career of Sir Henry Rawlinson, 1914-1918* (reprint, Barnsley: Pen and Sword, 2004 [1992]), pp. 308, 390, 393-394.

role of Imperial forces.<sup>54</sup> Researchers have also begun to pay attention to the less glamorous aspects of war with studies on intelligence, communications, munitions development, and logistics.<sup>55</sup> These valuable studies have added colour and depth to our understanding of the myriad changes taking place at different levels of command, in different branches, and behind the lines. Although the learning curve offers a neat analogy, it is telling that historians now tend to refer to it as a ‘learning process’ in an attempt to reflect the disjointed nature of learning in wartime. Both Dan Todman and Jonathan Boff have cautioned against the smooth progression that a curve entails.<sup>56</sup> Todman has argued that it is more accurate to ‘posit a variety of different developmental processes’ that ‘changed at different times’.<sup>57</sup> Boff expands on this view in his work on the British Third Army in 1918. For him, the process was far more complicated, arguing that learning was not ‘an abstract exercise aimed at solving a single equation, but an

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<sup>54</sup> For command and generalship, see S. Robbins, *British Generalship on the Western Front 1914-1918: Defeat into Victory* (London: Frank Cass, 2005); S. Robbins, *British Generalship during the Great War: The Military Career of Sir Henry Horne* (Aldershot: Ashgate, 2010); J. P. Harris, *Douglas Haig and the First World War* (Cambridge: Cambridge University Press, 2008); G. D. Sheffield, *The Chief: Douglas Haig and the British Army* (London: Aurum, 2011); A. Simpson, *Directing Operations: British Corps Command on the Western Front 1914-1918* (Stroud: Spellmount, 2006); P. E. Hodgkinson, *British Infantry Battalion Commanders in the First World War* (Aldershot: Ashgate, 2015). For technology, see S. Marble, *British Artillery on the Western Front in the First World War* (Aldershot: Ashgate, 2013); A. Palazzo, *Seeking Victory on the Western Front: The British Army and Chemical Warfare in World War I* (London: University of Nebraska, 2000); C. B. Hammond, ‘The Theory and Practice of Tank Co-operation with Other Arms on the Western Front during the First World War’, PhD Thesis, University of Birmingham, 2005. For Dominion forces, see B. Rawling, *Surviving Trench Warfare*; C. Pugsley, *The Anzac Experience: New Zealand, Australia and Empire in the First World War* (Auckland: Reed, 2004); S. B. Schreiber, *Shock Army of the British Empire: The Canadian Corps in the Last 100 Days of the Great War* (Westport, CT: Praeger, 2004); T. Cook, *Shock Troops: Canadians Fighting the Great War 1917-1918* (Toronto, ON: Viking Canada, 2008); G. Morton-Jack, *The Indian Army on the Western Front: India’s Expeditionary Force to France and Belgium in the First World War* (Cambridge: Cambridge University Press, 2014).

<sup>55</sup> J. Beach, *Haig’s Intelligence: GHQ and the German Army 1916-1918* (Cambridge: Cambridge University Press, 2013); B. N. Hall, ‘Technological Adaptation in a Global Conflict: The British Army and Communications beyond the Western Front, 1914-1918’, *Journal of Military History* 78 (2014), pp. 37-71; A. Saunders, *Reinventing Warfare 1914-18: Novel Munitions and Tactics of Trench Warfare* (London: Continuum, 2012); I. M. Brown, *British Logistics on the Western Front 1914-19* (Westport, CT: Praeger, 1998).

<sup>56</sup> D. Todman, ‘The Grand Lamasery Revisited: General Headquarters on the Western Front, 1914-1918’, in G. Sheffield and D. Todman (eds.), *Command and Control on the Western Front: The British Army’s Experience 1914-18* (Stroud: Spellmount, 2007 [2004]), pp. 39-70; J. Boff, *Winning and Losing on the Western Front: The British Third Army and the Defeat of Germany in 1918* (Cambridge: Cambridge University Press, 2012).

<sup>57</sup> Todman, ‘Grand Lamasery’, pp. 64-65.

intensely practical attempt to unpick a series of different specific tactical, operational and strategic knots'.<sup>58</sup>

This thesis accepts that a learning process took place in the British army. The army's success in 1918 confirmed that it had established and maintained a learning superiority over its adversaries that, while not flawless, was certainly good enough. However, there are certain aspects of its learning process that have been insufficiently explored in the existing historiography. First, the very nature of this process and its constant evolution throughout the course of the war has been poorly served. This is typified by studies such as Griffith's *Battle Tactics on the Western Front* and Peter Simkins' *From the Somme to Victory*, both of which view the Somme campaign as the watershed moment for the army.<sup>59</sup> According to Griffith, it was the Somme that 'transformed it [the army] from a largely inexperienced mass army into a largely experienced one'.<sup>60</sup> Unwittingly or not, this truncates the learning process, serving to discount the previous twenty-three months of warfare. With notable exceptions, this tendency is also reflected in the relative lack of scholarship on learning in the army from 1914-1915.<sup>61</sup>

Secondly, there has been little attempt to disaggregate the learning process and examine the methods the army used to learn. It is only recently that scholars such as Foley and Jim Beach have started to examine the nuts and bolts of the process.<sup>62</sup> As noted above, Foley discusses the army's tendency towards pragmatic, people-driven solutions, using the development of tanks and the appointment of Sir Eric Geddes as evidence of this.<sup>63</sup> Beach's research into the army's doctrine writing process enhances our understanding of how doctrine was created, suggesting that the British Expeditionary Force [BEF] moved from an ad hoc approach to a far more

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<sup>58</sup> Boff, *Winning and Losing*, pp. 248-249.

<sup>59</sup> Griffith, *Battle Tactics*; P. Simkins, *From the Somme to Victory: The British Army's Experience on the Western Front, 1916-1918* (Barnsley: Pen and Sword, 2014).

<sup>60</sup> Griffith, *Battle Tactics*, p. 65.

<sup>61</sup> Notable exceptions include S. Jones (ed.), *Stemming the Tide: Officers and Leadership in the British Expeditionary Force 1914* (Solihull: Helion, 2014); N. Lloyd, *Loos 1915* (Stroud: Tempus, 2006).

<sup>62</sup> Foley, 'Dumb Donkeys'; J. Beach, 'Issued by the General Staff: Doctrine Writing at British GHQ, 1917-18', *War in History* 19 (4) (2012), pp. 464-491.

<sup>63</sup> Foley, 'Dumb Donkeys', pp. 291-296.

systematic one.<sup>64</sup> However, these doctrinal pamphlets are not conclusive proof of steadily increasing competence. The process of doctrine writing was haphazard and did not really mature until mid-1918. To focus on these formal methods, notably the army's Stationery Service [SS] pamphlets, tells only half the story. The survival and accessibility of these pamphlets has been used to demonstrate how the army learned, particularly at the tactical level.<sup>65</sup> However, as Albert Palazzo argues, manual publication is easy, but 'the path to doctrinal inculcation is difficult and fraught with institutional obstacles'.<sup>66</sup> These obstacles often relate to the attitudes of individuals who may display resistance or inertia. Conversely, as we have seen with the literature on adaptation, members often partake in individual, informal learning that can be of great benefit to the organisation. With the exception of Foley, these informal methods have been conspicuous by their absence in scholarship of the First World War. Part of the problem is lack of evidence. Many of these informal interactions were not written down and are, therefore, lost to history. However, another reason relates to arguments advanced by Travers and Murray, which undermine the efficacy of the army's formal methods.<sup>67</sup> Both Travers and Murray highlight the anti-intellectualism of the army's officer corps and argue that such a mindset impacted on its ability to learn during the war. Murray argues that 'with the exception of the Germans, military organisations in the 1914-1918 conflict simply did not possess the means to gather and analyse combat experience in a coherent fashion'.<sup>68</sup> He goes on to state that Field Marshal Sir Douglas Haig's failure to 'appoint a director of training... until 1918 underlines a failure to recognise the need for a coherent and consistent response to the tactical conditions encountered'.<sup>69</sup> This not only undermines the army's formal methods for learning, but also

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<sup>64</sup> Beach, 'General Staff', p. 491.

<sup>65</sup> See, for example, Griffith, *Battle Tactics*, pp. 183-191; J. Lee, 'Some Lessons of the Somme: The British Infantry in 1917', in B. Bond *et al.*, *'Look to Your Front': Studies in the First World War* (Staplehurst: Spellmount, 1999), pp. 79-87.

<sup>66</sup> A. Palazzo, *From Moltke to Bin Laden: The Relevance of Doctrine in the Contemporary Military Environment* (Canberra, ACT: Land Warfare Studies Centre, 2008), p. 29.

<sup>67</sup> T. Travers, *The Killing Ground*; T. Travers, *How the War was Won: Command and Technology in the British Army on the Western Front, 1917-1918* (London: Routledge, 1992); Murray, *Military Adaptation*.

<sup>68</sup> Murray, *Military Adaptation*, p. 21.

<sup>69</sup> *Ibid.*, p. 98.



reinforces Travers' argument that the Germany army lost the war, rather than the British winning it.<sup>70</sup> As such, 'revisionist' historians have sought to prove the efficacy of such formal methods to refute Travers' assertion.

Thirdly, and finally, despite Sheffield and Bourne's contention that new scholarship has 'concentrated on the Army as an institution', the majority of it has focused on the experience of the BEF only. The experience of this one force has been extrapolated to represent that of the army as a whole. It is unsurprising that both Sir Hew Strachan and William Philpott have called for a less Anglocentric, less Western Front bias to First World War scholarship.<sup>71</sup> For the British army, the Western Front was, undoubtedly, the most important and intensely fought campaign of the war. However, it is both dangerous and fallacious to assume that it is the only military experience of the period worth understanding. Until relatively recently, the subsidiary theatres suffered from relative historical indifference: their marginalised nature in wartime has been reflected in their position within the historiography. Early studies on these theatres were often narrative accounts that focused on campaign and battle studies, or personal experiences.<sup>72</sup> However, recent scholarship by historians such as Strachan, Matthew Hughes, James Kitchen, Andrew Syk, Yigal Sheffy, and Kristian Coates Ulrichsen has sought to reassess these subsidiary theatres, moving away from sentimental, narrative accounts of battles to an objective analysis of each theatre.<sup>73</sup> This research has succeeded in overturning some of the deep-rooted,

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<sup>70</sup> Travers, *How the War was Won*, pp. 175-180.

<sup>71</sup> H. Strachan, 'The First World War as a Global War', *First World War Studies* 1 (1) (2010), pp. 3-14; W. Philpott, 'Beyond the "Learning Curve": The British Army's Military Transformation in the First World War', *RUSI Analysis*, November 2009, <https://www.rusi.org/analysis/commentary/ref:C4AF97CF94AC8B/#.U33lrV4k9g0> [accessed 22 May 2014].

<sup>72</sup> See, for example, D. Woodward, *Hell in the Holy Land: World War I in the Middle East* (Lexington, KY: University Press of Kentucky, 1996); J. Laffin, *Damn the Dardanelles! The Agony of Gallipoli* (reprint, Stroud: Sutton Publishing, 1997); Field Marshal Lord Carver and I. G. Robertson, *The National Army Museum Book of the Turkish Front 1914-18: The Campaigns at Gallipoli, in Mesopotamia and in Palestine* (London: Pan, 2004 [2003]); R. Wilcox, *Battles on the Tigris: The Mesopotamian Campaign of the First World War* (Barnsley: Pen and Sword, 2006); A. Wakefield and S. Moody, *Under the Devil's Eye: The British Military Experience in Macedonia 1915-1918* (Barnsley: Pen and Sword, 2011 [2008])

<sup>73</sup> H. Strachan, *The First World War. Volume 1: To Arms* (Oxford: Oxford University Press, 2001); H. Strachan, *The First World War in Africa* (Oxford: Oxford University Press, 2004); M. Hughes, *Allenby and British Strategy in the Middle East, 1917-1919* (London: Frank Cass, 1998); J. E. Kitchen, *The British Imperial Army in the Middle East* (London: Bloomsbury, 2014); A. Syk, 'Command in the Indian

popular assumptions on the nature and conduct of war in these theatres. However, there is still a tendency to analyse theatres singly, without recourse to others. Though understandable, this can result in a skewed picture of progress and development. Matthew Hughes' excellent account of General Sir Edmund Allenby's command of the Egyptian Expeditionary Force [EEF], for example, offered limited consideration of Allenby's Western Front career, despite its significant influence on his training and personal command ethos.<sup>74</sup> To understand how the army learned as an institution, the links between those theatres must be acknowledged and explored.

Where these links have been acknowledged, the focus is often limited to a single branch or formation, rather than a broader consideration. In his seminal work on British military medicine during the First World War, Mark Harrison allows for 'comparisons to be made between different theatres', highlighting the importance of commanders such as Lieutenant-General Sir Stanley Maude (Commander-in-Chief [CinC], Mesopotamian Expeditionary Force) in propagating particular lessons.<sup>75</sup> However, Harrison's focus is on the outcome, rather than the process, of learning. In their wide-ranging study on artillery, Paul Strong and Sanders Marble show how 'different armies faced varied circumstances and came up with unique solutions'. Indeed, looking at one theatre is not enough, as this reveals 'only one learning curve associated with the particular circumstances in a given theatre, and thus inevitably fails to demonstrate the complex evolutionary processes at work'.<sup>76</sup> Brian Hall's recent work on communications beyond the Western Front offers another useful attempt to discuss the war in a global context.<sup>77</sup> He shows that doctrinal pamphlets, written on the Western Front, were 'littered throughout the

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Expeditionary Force D: Mesopotamia, 1915-16', in K. Roy (ed.), *The Indian Army in Two World Wars* (Leiden: Brill, 2012), pp. 63-104; Y. Sheffy, 'Chemical Warfare and the Palestine Campaign, 1916-1918', *Journal of Military History* 73 (3) (2009), pp. 803-844; Y. Sheffy, 'The Chemical Dimension of the Gallipoli Campaign: Introducing Chemical Warfare to the Middle East', *War in History* 12 (3) (2005), pp. 278-317; K. C. Ulrichsen, *The First World War in the Middle East* (London: C. Hurst and Co., 2014); K. C. Ulrichsen, *The Logistics and Politics of the British Campaigns in the Middle East, 1914-22* (London: Palgrave Macmillan, 2011).

<sup>74</sup> P. Simkins, 'Review of *Allenby and British Strategy in the Middle East 1917-1919* by M. Hughes' <http://www.history.ac.uk/reviews/review/134> [Accessed 1 May 2012].

<sup>75</sup> M. Harrison, *The Medical War: British Military Medicine in the First World War* (Oxford: Oxford University Press, 2010), pp. 14, 223-224.

<sup>76</sup> P. Strong and S. Marble, *Artillery in the Great War* (Barnsley: Pen and Sword, 2011), pp. xvi-xvii

<sup>77</sup> Hall, 'Technological Adaptation'.

war diaries of signal companies in every theatre’, using this as an example of ‘clear cross-fertilization’.<sup>78</sup> Despite this, Hall, unlike Harrison, does not consider the impact of informal methods or individual commanders on this process of inter-theatre learning.

Over a third of the army’s formations saw service in a theatre beyond the Western Front, yet very few divisional studies examine a formation that served in these other theatres. The notable exceptions to this rule are two doctoral studies on the 10th (Irish) Division and 52nd (Lowland) Division by Stephen Sandford and Christopher Forrest respectively.<sup>79</sup> Both studies chart the divisions’ experiences of different theatres and both examine how development on the Western Front contributed to changes in warfare more broadly. Forrest, for example, persuasively argues that ‘much of the experience it [52nd Division] had collected whilst serving in Egypt and Palestine was relevant to the needs and demands of campaigning on the Western Front’.<sup>80</sup> Although both these studies are useful, they are limited to single formations and primarily focus on tactical developments.

As this literature review suggests, studies on learning and innovation are isolated and fragmentary in nature. Innovation studies usually focus on modern militaries or prioritise operational case studies that have relevance to those fought by today’s armed forces. Although military organisations are now viewed less as Weberian bureaucracies and more as flexible institutions, this research is embryonic. Similarly, the move towards a less vectored approach to innovation has placed emphasis on the culture and ethos of a military and how that governs learning, but there remains room for development. For the army of the First World War in particular, discussion of learning has tended to limit itself to individual branches or formations, and remains fixed on the Western Front.

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<sup>78</sup> *Ibid.*, p. 70.

<sup>79</sup> S. Sandford, *Neither Unionist nor Nationalist: The 10th (Irish) Division in the Great War* (Sallins: Irish Academic Press, 2014); C. Forrest, ‘The 52nd (Lowland) Division in the Great War, 1914-1918’, Unpublished PhD Thesis, University of Salford, 2010.

<sup>80</sup> Forrest, ‘The 52nd (Lowland) Division’, p. 314.

This thesis responds to these gaps in three ways. First, it moves beyond the standard Western Front narrative of the First World War. It looks at multiple theatres, considering the army's experience in Egypt, Gallipoli, Italy, Palestine, Salonika, and the Western Front. This will demonstrate how different environments and different enemies affected the army's learning and adaptation capabilities. It also allows for a holistic examination of the army's experience. Secondly, and more broadly, it responds to Farrell's call for greater research into the 'specific modalities' of military learning, notably that which occurs institutionally, between formations, and between theatres.<sup>81</sup> The army of the First World War shared knowledge through the movement of formations and personnel. It also brought in expertise from civilian professionals. By engaging with some of these modalities, this thesis will highlight the complex, multi-faceted nature of innovation and the various avenues that contributed to this process. Thirdly, it moves away from the 'one campaign' approach that has typified most studies on innovation. French has argued that it is 'impossible to determine how and to what extent doctrine and practice developed over time' by focusing on a single campaign.<sup>82</sup> This thesis not only considers multiple expeditionary forces, but it also benchmarks the army's experience of the First World War against its pre-war experiences. This places the army's attitude towards learning and innovation into a broader context, whilst allowing for conclusions to be drawn as to the flexibility and, indeed, the continuing relevance of its ethos.

From this literature review, it has also been possible to pick out four hypotheses relating to the army's process for learning during the war. First, the army's ethos enhanced its ability to learn and innovate and, therefore, remained valid during the war. Secondly, the army primarily used formal methods to learn and share knowledge in wartime. Thirdly, it was not averse to change and actively encouraged innovation in time of war. Fourthly, it became organisationally less rigid in wartime, displaying greater flexibility, particularly when integrating newcomers.

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<sup>81</sup> Farrell, 'Improving in War', pp. 591-592.

<sup>82</sup> French, *British Way in Counter-Insurgency*, p. 7.

The thesis will test these hypotheses to determine the effectiveness of the army's attempts to learn and innovate.

The approach taken is a thematic examination of the army's process for learning across a number of different operational theatres. This examination focuses around three cross-cutting themes that govern the study's structure, namely knowledge sharing, receptiveness to change, and integration of newcomers. These themes offer a way of examining and testing the army's organisational behaviour and responsiveness in time of war. As it falls outside the scope of this thesis to consider all aspects of these themes and the army's learning process, a case study approach has been employed. The choice of theatres and case studies needed to be broadly representative of the army in order to test the effectiveness of this process. When selecting operational theatres, sustained British involvement was a key factor. This, therefore, precluded detailed discussion of the East African and Mesopotamian campaigns, which were fought by Indian expeditionary forces. Also, as the study's focus lies with active operational theatres, discussion of activities on the home front is necessarily limited.

As the literature review revealed, much of the research on army learning has focused on combat effectiveness, specific branch studies, and operational or tactical development. These developments have usually focused on a single, usually British, division. For that reason, the case studies chosen have addressed 'teeth' (front line) and 'tail' (behind the line) functions, as well as the organisational make up of the army, including its civilian and multi-national aspects. A whole range of case studies could have been used to illustrate these particular areas, but various factors, such as source limitations and previous scholarship, discounted them. For example, a full examination of the logistics network was ruled out owing to previous scholarship.<sup>83</sup> Therefore, the decision was taken to primarily focus on the work of Inland Water Transport [IWT], water supply, and transport missions to the subsidiary theatres, which have

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<sup>83</sup> See, for example, Brown, *British Logistics*; C. Phillips, 'Managing Armageddon: The Science of Transportation and the British Expeditionary Force, 1900-1918', Unpublished PhD Thesis, University of Leeds, 2015.

been less well covered in the literature. This allowed for discussion of ‘tail’ functions as well as the involvement of civilian experts. The role of civilians also influenced the decision to consider ‘front line’ innovations, including military mining and chemical warfare. To address the multi-national dimension of the army, the Australian Imperial Force [AIF] was selected as a case study over other national contingents, such as the Canadian Expeditionary Force [CEF] and the New Zealand Expeditionary Force [NZEF]. Its significant presence in a number of active operational theatres proved a primary reason for its selection, as well as the accessibility of source material. Where appropriate, however, reference has been made to other national contingents, including the CEF. The organisational makeup of the army was also examined through the integration of British combat formations into different expeditionary forces.<sup>84</sup> It was impossible to explore the integration of all formations, so a number of case study divisions were chosen. It was important to select divisions that had served in at least two of the six operational theatres under examination; had spent more than six months in a new theatre; and had not been the subject of a recent study. This criteria provided thirteen divisions, nine of which were chosen to form the sample for this study. The sample included two regular divisions (7th and 27th), five territorial divisions (42nd, 53rd, 54th, 60th, and 74th), and two Kitchener army divisions (11th and 23rd). Other formations have been used throughout the study where their inclusion added to, or illuminated, the chosen case studies.

The diverse range of case studies chosen offers a meaningful and broadly representative cross-section of the army. However, there are limitations to this case study approach. When examining a concept as broad and amorphous as learning, it is impossible to test its effectiveness within each branch or formation of the army. Although these case studies are broadly comparable with Harrison and Hall’s respective analyses, highlighting the army’s diversity of method and experience, they are by no means exhaustive.

This study draws on a wide range of sources. In addition to the secondary literature outlined above, it uses the official histories of each expeditionary force, formation and branch

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<sup>84</sup> In this instance, British combat formations include regular, territorial, and Kitchener army.

histories written after the war, along with contemporary articles from service and professional journals. The majority of sources have been drawn from The National Archives [TNA] at Kew and have included, *inter alia*, records from the War Office, Cabinet, Treasury, Ministry of Munitions, and Geological Survey Board. Examining records from a number of different government departments highlights the complexity of arrangements required to support and supply the army with knowledge, *matériel*, and personnel throughout its various theatres. The war diaries held in WO 95 have provided the core of this study's operational analysis. Diaries from General Headquarters [GHQ] down to battalion level have been consulted to furnish detail on the development and subsequent impact of training and integration methods. However, there are limitations to this material. War diaries and their respective reports are written after the event and, therefore, potentially subject to *ex post facto* justification. The level of detail varies considerably between formations. In certain units, there was a drive for uniformity, particularly in the AIF, which reminded its units that war diaries were to form 'an "accurate record" on which the history of the war would be written'.<sup>85</sup> In some formations, however, the desire to please higher command led to certain embellishments or omissions. One British Brigade Major [BM] recalled that 'the narratives did not always paint a true picture... I have myself had to alter considerably a draft narrative, not because it was in any way inaccurate, but because my commander wanted certain incidents to appear in a more favourable light than perhaps they should have done'.<sup>86</sup> Furthermore, owing to bomb damage during the Second World War and official pruning, some war diaries are incomplete, while some are non-existent. A number of the EEF's formation and training school diaries, for example, were destroyed during the Blitz.<sup>87</sup> In an attempt to mitigate this deficiency, the war diaries of higher headquarters, along with the private papers of general officers, were examined in search of training syllabi and schemes.

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<sup>85</sup> A. M. Condé, 'Imagining a Collection: Creating Australia's Records of War', *Journal of the National Museum of Australia* 2 (1) (2008), p. 28.

<sup>86</sup> The National Archives of the UK [TNA], CAB 45/132, Lieutenant-General Sir D. Anderson to Brigadier-General Sir J. Edmonds, 6 April 1934.

<sup>87</sup> M. Seligmann, 'Hors de Combat? The Management, Mismanagement and Mutilation of the War Office Archive', *Journal of the Society for Army Historical Research* 84 (337) (2006), p. 53.

Sources in addition to those at TNA have been consulted, particularly when examining the high politics of manpower, civilian expertise, and military education. These sources include Hansard debates, Parliamentary papers, and council minutes from learned societies, such as the Institutions of Mechanical and Electrical Engineers. Similarly, when considering the AIF's relationship with the British army, official records and correspondence from the Australian War Memorial [AWM] and the National Archives of Australia [NAA] have supplemented sources from British archives.

While official and institutionally sanctioned documents are an important record, revealing much about a particular institution during a particular period, they only tell half the story. Rodney Lowe has argued that, where the Civil Service is concerned at least, no official could 'reach the top unless "he is effective in the little private and informal conferences, committees, and interviews where the real decisions are taken"'.<sup>88</sup> Where 'questions of major policy are concerned... probably the most important work is done outside the formal committee structure by personal discussion and exchange of views'.<sup>89</sup> This approach is not limited to the machinations of the Civil Service. For this reason, the personal testimony and correspondence of politicians, generals, officers, men, and civilian experts has been considered. The Imperial War Museum [IWM], Liddell Hart Centre for Military Archives [LHCMA], National Army Museum [NAM], and the AWM have provided the bulk of testimonies. These papers have been used to fill gaps within the official record, but also to uncover attitudes towards certain individuals or formations, weaknesses within existing systems, or simply to gauge morale within the various forces. Often unfettered by bureaucratic protocols, these diaries and private papers provide useful details on the personality and perceived effectiveness of certain individuals.

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<sup>88</sup> R. Lowe, 'Plumbing New Depths: Contemporary Historians and the Public Record Office', *Twentieth Century British History* 8 (2) (1997), pp. 247-248. For the strengths and weaknesses of TNA records, see A. McDonald, 'Public Records and the Modern Historian', *Twentieth Century British History* 1 (3) (1990), pp. 341-352; S. J. Ball, 'Harold Macmillan and the Politics of Defence', *Twentieth Century British History* 6 (1) (1995), pp. 78-100.

<sup>89</sup> Lowe, 'Plumbing New Depths', pp. 247-248.



Unsurprisingly, there are weaknesses to this personal testimony. As Simon Ball has argued, personal recollection can ‘mislead or conceal as much as it reveals. Without any lies being told, information can be simply incorrect’.<sup>90</sup> Its reliability can vary based on the author’s state of mind or the intended recipient. For contemporary letters home, the practice of self-censorship cannot be ignored; while in the case of retrospective memoirs or those abridged in typescript form, consideration must be given to failing memories and, ultimately, the intention of the author or editor.<sup>91</sup>

The thesis is split into six substantive chapters that align with the three cross-cutting themes of sharing knowledge, receptiveness to change, and integrating newcomers. The first chapter provides necessary context with a particular focus on the army’s pre-war ethos and the factors that shaped it. It examines whether the army’s tendency towards common sense and pragmatism was primarily a wartime phenomenon, or a legacy of its pre-war experiences. It finds that, despite the army’s rapid expansion and change in composition, this ethos endured throughout the First World War. It, therefore, supports the first hypothesis.

The second chapter aligns with the study’s first cross-cutting theme: sharing knowledge. With increased global commitments, the army needed to refine or develop a series of new methods to ensure that lessons and knowledge were shared between its different forces. Formal methods, such as publications and schools, saw information pushed out to the various forces. Though these methods were a step towards the standardisation of knowledge, the chapter finds that the army was reticent when it came to enforcing them. Instead, it delegated to the periphery, encouraging forces to use their initiative as to which lessons or tactics were appropriate. In this respect, the chapter challenges the second hypothesis, suggesting that, though important, formal methods were not as dominant as first thought.

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<sup>90</sup> Ball, ‘Harold Macmillan’, p. 99.

<sup>91</sup> A. Thompson, ‘Anzac Stories: Using Personal Testimony in War History’, *War and Society* 25 (2) (2006), pp. 4-5.

The next two chapters consider the second theme: the army's responsiveness to change. Chapter 3 tackles questions around the military's supposed aversion to change head on, arguing that the army encouraged a culture of innovation. It uses a series of case studies to test this argument, including military mining, gas, IWT, and the establishment of the Inspectorate of Training at GHQ. It emphasises the importance of individual change agents and facilitators at all levels of the army to the success of these initiatives. Though the army was not averse to change, there were still problems. The chapter shows that rivalry, scepticism, and resistance – all normal responses to uncertainty – had to be dealt with at both an institutional and individual level. Some of the methods used to mitigate these problems are discussed. Chapter 4 focuses in depth on the army's use of civilian expertise. The relationship between civilian and combatant increasingly blurred during the First World War. Focusing on transport and engineering in particular, the chapter shows that the army actively sought out and promoted the skills of a variety of civilian experts. These individuals could challenge the status quo, enabling new methods to take root within the army, such as data collection and statistical forecasting. As with Chapter 3, pockets of resistance existed, requiring the army to rationalise proposed change through collaboration, cohesion, and communication. The third hypothesis, therefore, is supported although with certain caveats.

The final two chapters of the thesis align with the third theme: the integration of newcomers. Chapter 5 examines how combat formations, primarily territorial and Kitchener army divisions, were integrated into different expeditionary forces. It finds that there was considerable diversity of method as to how each force dealt with these formations, attesting to the cultural and organisational complexity of the army. Difficulties were encountered by these incoming formations, the reasons for which are explored. Building on the findings of Chapter 5, the sixth chapter uses the AIF as a case study to show how effectively newcomer organisations were integrated. It finds that the AIF benefitted from the refined integration methods used for territorial and Kitchener army formations. It also shows that the army tolerated efforts at 'self-integration' and promoted innovation at the tactical level, underlining its hardwired preference

for autonomy and initiative. The fourth hypothesis – that the army was less rigid organisationally – is borne out, although the exigencies of war, and, where the AIF was concerned, pressure from external agencies, accelerated this fluidity.

Finally, the conclusion pulls the thesis' findings together. It argues that, through a combination of its pre-war ethos and increased fluidity in wartime, the army displayed organisational and cultural flexibility across all theatres, promoting informal learning and encouraging individuals to innovate. The importance of the army's ethos provided it with the flexibility to integrate a considerable number of newcomers – all of whom brought with them certain social and cultural preconceptions. While there were instances of resistance, the army nurtured a culture of innovation, rather than one of inertia. It actively shared knowledge across tactical, geographical, and institutional boundaries. It also promoted the ideas of soldier-innovators and civilian experts to enhance its operational effectiveness. The thesis concludes by suggesting the broader implications of this work on our understanding of the British army and other traditionally bureaucratic institutions where learning and change are concerned.

## CHAPTER 1

### THE LEGACY OF THE PAST

Writing to Lieutenant-General Sir Henry Rawlinson in July 1916, General Sir William Robertson noted that the ‘situation is now better than it has ever been before and all that is needed is the use of common-sense, careful methods, and not to be too hidebound by the books we used to study before the war’.<sup>1</sup> Robertson’s remarks provide an insight into the army’s ethos in July 1916. They highlight the importance of prioritising initiative and experience over prescription and books. However, the army of July 1916 was very different to the one that took the field in August 1914 and, indeed, to the one that ended the war in November 1918. On the outbreak of war, the British army was a small, professional *gendarmerie*, totalling 247,432 officers and men.<sup>2</sup> In July 1916, the army stood at 1,873,932 in all theatres.<sup>3</sup> It was no longer a homogeneous force, but a mixture of territorial, Kitchener army, Indian army, and dominion units. By November 1918, the army’s strength across its various expeditionary forces totalled 2,668,736 officers and men.<sup>4</sup> It was a vast citizen force, largely conscript in nature. Given the rapid expansion and changing composition of the army, it is not unreasonable to suggest that this would have an impact on the survival and relevance of the army’s ethos.

This chapter seeks to answer two questions: first, to what extent was the need for ‘common-sense’ and ‘careful methods’ a wartime innovation, or simply a continuation of the army’s pre-war ethos, and secondly, how, if at all, did the army’s ethos survive given the changes to the army’s organisation during the First World War? The aim of the chapter is to provide the necessary context for later analyses of the army’s ethos. The discussions and conclusions that follow are, therefore, necessarily broad. To realise this aim and to answer the questions posed, the chapter first defines what is meant by ethos and how it affects

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<sup>1</sup> Liddell Hart Centre for Military Archives [LHCMA], Papers of Field Marshal Sir W. R. Robertson, 8/4, Robertson to Rawlinson, 26 July 1916.

<sup>2</sup> War Office, *Statistics of the Military Effort of the British Empire during the Great War 1914-1920* (London: HMSO, 1922), p. 30. This figure does not include the reservists.

<sup>3</sup> *Ibid.*, p. 64.

<sup>4</sup> *Ibid.*, pp. 62-63.

organisational behaviour. Secondly, it examines a number of factors that shaped the army's ethos, including national identity, geostrategic considerations, military initiatives including the establishment of the General Staff and the publication of *Field Service Regulations* [FSR], and the influence and homogeneity of the officer corps. Finally, it considers the impact of this ethos on the army's ability to learn and, given the changing nature and composition of the army, assesses its continuing relevance during the First World War.

The British army was an institution traditionally averse to doctrine. Arguably, up until the publication of *Design for Military Operations – The British Military Doctrine* in 1989, the army had opted for a 'doctrine of no doctrine'.<sup>5</sup> General Sir John Chapple's foreword to *Design for Military Operations* addressed this aversion to doctrine head on, stating that 'there may be some who say that laying down doctrine like this is not the British way'. Nevertheless, Chapple wrote, the 'modern battlefield is not a place where we could hope to succeed by muddling through'.<sup>6</sup> The army's long-standing aversion was based on the perception that doctrine would 'prepare the army to face the wrong army at the wrong time and in the wrong place'.<sup>7</sup> Historians interested in the British army have debated what constituted doctrine and to what extent it actually existed within the army prior to 1914.<sup>8</sup> Part of the issue is the problematic nature of the term 'doctrine'. There is little consensus on what it actually means.<sup>9</sup> Shelford Bidwell and Dominick Graham defined doctrine as 'the definition of the aim of military operations; the study of weapons and other resources and the lessons of history, leading to the deduction of the correct strategic and tactical principles on which to base both training and the conduct of war'.<sup>10</sup> In a recent study, Harold Høiback defined it as 'institutionalised beliefs about what works in

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<sup>5</sup> *Design for Military Operations – The British Military Doctrine* (London: HMSO, 1989).

<sup>6</sup> *Ibid.*, p. vii.

<sup>7</sup> H. Høiback, 'What is Doctrine?', *Journal of Strategic Studies* 24 (6) (2011), p. 890.

<sup>8</sup> See Bidwell and Graham, *Fire-Power*, pp. 7-60; S. Badsey, *Doctrine and Reform in the British Cavalry 1880-1918* (Aldershot: Ashgate, 2008), pp. 2-3; T. Bowman and M. Connelly, *The Edwardian Army: Recruiting, Training, and Deploying the British Army, 1902-1914* (Oxford: Oxford University Press, 2012), pp. 75-76.

<sup>9</sup> Høiback, 'What is Doctrine?', p. 880.

<sup>10</sup> Bidwell and Graham, *Fire-Power*, p. 2.

war’, or, more elaborately, as ‘an authoritative theory of war that allows for cultural idiosyncrasies’.<sup>11</sup> For the modern British military, doctrine is ‘a guide to commanders and subordinates on how to think, not what to think’ and something which can ‘never replace individual initiative’.<sup>12</sup>

Doctrine also provides the root for words such as doctrinaire and indoctrination. This, as Paul Latawski suggests, can ‘provoke a vision of intellectual rigidity’, and, for the army, can ‘represent an unhelpful ossification of past military practice’.<sup>13</sup> For military commentators in the late nineteenth and early twentieth centuries, there was a fear that doctrine could become dogma. Brigadier-General Thompson Capper, for example, suggested that ‘doctrines soon produce doctrinaires, and doctrinaires soon produce dogma’; while J. F. C. Fuller believed that dogma would ‘be seized upon by mental emasculates who lack virility of judgement, and who are only too grateful to rest assured that their actions, however inept, find justification in a book’.<sup>14</sup> For the army of the time, doctrine could be a straitjacket that compromised flexibility.<sup>15</sup> As we shall see, the British army, unlike the armies on the continent, could not predict where it might next be deployed. While it realised that certain principles of war and command needed to be articulated in print, the army did not subscribe to or promote a formal doctrine.<sup>16</sup> Instead, it relied on something else for unity: a ‘common character’ or ethos.

Unlike doctrine, ethos is far easier to define and, according to Anthony King, is ‘one of the most tangible aspects of human reality’.<sup>17</sup> Ethos can be defined as ‘the characteristic spirit of

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<sup>11</sup> Høiback, ‘What is Doctrine?’, p. 897.

<sup>12</sup> *UK Defence Doctrine*, Joint Warfare Publication 0-01 (5th Edition, November 2014), p. iii.

<sup>13</sup> P. Latawski, ‘The Inherent Tensions in Military Doctrine’, *Sandhurst Occasional Paper No. 5* (2011), p. 3.

<sup>14</sup> LHCMA, Papers of General Sir J. S. M. Shea, 2/5, Draft of Brigadier-General Thompson Capper ‘The Doctrine of a “Doctrine”’ n.d. (c. 1912); J. F. C. Fuller, *The Foundations of the Science of War* (London: Hutchinson and Co., 1926), p. 254.

<sup>15</sup> H. Strachan, ‘Introduction’, in H. Strachan (ed.), *Big Wars and Small Wars: The British Army and the Lessons of War in the 20th Century* (Abingdon: Routledge, 2006), p. 4.

<sup>16</sup> Bidwell and Graham, *Fire-Power*, pp. 2-3, 38; Travers, *The Killing Ground*, pp. 38, 41, 66-67; Palazzo, *Seeking Victory*, pp. 8-9.

<sup>17</sup> A. King, ‘The Ethos of the Royal Marines: The Precise Application of Will’, Report Commissioned by the Royal Marines, 2004, p. 2.

<https://ore.exeter.ac.uk/repository/bitstream/handle/10036/58653/RMethos4.pdf?sequence=1> [Accessed 5 March 2015].

a people, community, culture or era', or the 'prevailing character of an institution or system'.<sup>18</sup> Put simply, it refers to what a human group does and how it does it.<sup>19</sup> It can be both implicit and explicit in nature. It is implicitly assumed in every single interaction, as well as explicitly defined in military training, regulations, routines, and practice. Historians such as Albert Palazzo and David French have suggested that, rather than doctrine and the rigidity that it implies, the British army used its institutional ethos, or the 'common character' of its members, to interpret the nature of war, identify problems, pose solutions, and implement change.<sup>20</sup> Contrary to Tim Travers' assertion that the army's distaste for doctrine was due to anti-intellectualism, Palazzo suggests that the army's lack of doctrine was a deliberate policy decision.<sup>21</sup> Ethos provided an alternative, equivalent structure for the decision-making process. Based on the cultural values of the nation, this ethos was institutionalised within the officer corps; its continuation assured by the use of mechanisms such as the regimental tradition to pass it on to the next generation.<sup>22</sup>

Given its link to national and cultural values, it is tempting to equate ethos with tradition. To do this implies that ethos is inflexible and intolerant of change. This particular viewpoint resonates with ideas around military conservatism. As Theo Farrell has argued, an army's ethos, or its cultural construct, may act as a brake on innovation.<sup>23</sup> Existing procedures can become routine, even ritualised, and lose touch with their original purpose. Given the military's veneration of tradition, this can be seen as problematic.<sup>24</sup> However, this is only one viewpoint and one that is driven by the belief that ethos is static. Although influenced by past conflicts and national identity, ethos was not inflexible. Rather, it provided the army with the

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<sup>18</sup> *Oxford English Dictionary*.

<sup>19</sup> King, 'Royal Marines', p. 2; T. Terriff, "'Innovate or Die': Organisational Culture and the Origins of Maneuver Warfare in the US Marine Corps', *Journal of Strategic Studies* 29 (3) (2006), p. 478.

<sup>20</sup> D. French, *Raising Churchill's Army: The British Army and the War against Germany 1919-1945* (Oxford: Oxford University Press, 2000), pp. 21-22, 50; Palazzo, *Moltke to Bin Laden*, *passim*.

<sup>21</sup> Travers, *The Killing Ground*, p. 38; Palazzo, *Seeking Victory*, pp. 8-19.

<sup>22</sup> Palazzo, *Seeking Victory*, p. 10.

<sup>23</sup> T. G. Farrell, 'The Dynamics of British Military Transformation', *International Affairs* 84 (4) (2008), p. 783.

<sup>24</sup> P. H. Wilson, 'Defining Military Culture', *Journal of Military History* 72 (2008), pp. 31-32.

ability to adequately examine new ideas and situations. In short, it enabled the army to respond fully to the need for adaptation and innovation.<sup>25</sup>

Although there may be an overarching ethos that governs the military's role and actions, this is not always homogeneous. It is more accurate to view the military as a culture of sub-cultures. This is evident in different service arms and, to focus on the army, within certain branches or regiments. This culture of sub-cultures also links in with ideas around identity and loyalty structures. Charles Kirke has emphasised the flexibility of such structures, arguing that individuals can belong to many different groups within the military organisation. For example, a soldier may find himself parading with his troop or platoon in the morning, attending a company briefing mid-morning, and supporting a battalion sports team in the afternoon.<sup>26</sup>

On the outbreak of the First World War, the army's ethos focused on a preference for amateurism, a distaste for prescription, and an emphasis on the character of the individual. The particular values of this ethos included loyalty, self-confidence, courage, obedience, moral virtue, and sacrifice.<sup>27</sup> It was shaped and propagated by a number of different factors, including perceptions of national character, geography, military initiatives, and the social makeup of the officer corps. As we shall see, the influence of such factors would result in the endurance of this ethos during the First World War.

Writing in 1911, Major Ladislaus Pope-Hennessy remarked that 'the character of a nation is woven closely into the texture of a national conception of war'.<sup>28</sup> Pope-Hennessy's axiom can be taken further: the character of the nation is woven closely into the texture of the army itself. Armed forces reflect, like a time capsule, the values, beliefs, and social order of the

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<sup>25</sup> Palazzo, *Seeking Victory*, p. 17.

<sup>26</sup> C. Kirke, *Red Coat, Green Machine: Continuity in Change in the British Army 1700-2000* (London: Continuum, 2009), pp. 93-96.

<sup>27</sup> These values still have a place in the British army today. The current values of the army include selfless commitment, courage, discipline, integrity, loyalty and respect for others. See British Army, *Values and Standards of the British Army* (January 2008).

<sup>28</sup> L. H. R. Pope-Hennessy, 'The British Army and Modern Conceptions of War', *Edinburgh Review* 213 (436) (1911), p. 332.



society from which they spring.<sup>29</sup> Naturally, the British army's ethos reflected some of the broader characteristics and self-perceptions of what it meant to be British. Questions around national character and the idea of 'Britishness' or 'Englishness' have generated considerable scholarship.<sup>30</sup> For Robert Young, Englishness in particular was 'defined less as a set of internal cultural characteristics attached to a particular place, than a transportable set of values which could be transplanted, translated and recreated anywhere on the globe'.<sup>31</sup> It is unsurprising then that such values ended up shaping the culture and mentality of the army itself.

Since the eighteenth century, the British had defined their own national identity by contrasting themselves with their continental neighbours, particularly France and Germany. According to Linda Colley, the British national identity was an 'invention forged above all by war'. The succession of wars against France brought Britons into confrontation with a hostile 'other', encouraging them to define themselves collectively against it.<sup>32</sup> To the British, France represented cosmopolitanism, artificiality, and intellectual deviousness. In contrast, the British saw themselves as bluff, forthright, and morally serious.<sup>33</sup> Such differences manifested themselves in the contrasting philosophies of the French Rationalist, René Descartes, and the Scottish Empiricist, David Hume. It was also realised through Britain's dominant liberal political culture that emphasised the right of the individual to live their life with the minimum of state interference and to take responsibility for their own well-being.<sup>34</sup>

These self-perceptions leached into the Victorian period. Unlike their continental neighbours, the British perceived that actions were not to be governed by abstract reason.

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<sup>29</sup> G. Sloan, 'Haldane's Mackindergarten: A Radical Experiment in British Military Education?', *War in History* 19 (3) (2012), p. 328.

<sup>30</sup> See, for example, R. Colls and P. Dodd (eds.), *Englishness: Politics and Culture 1880-1920* (London: Croom Helm, 1986); R. Samuel (ed.), *Patriotism: The Making and Unmaking of British National Identity* (3 vols., Abingdon: Routledge, 1989); L. Colley, *Britons: Forging the Nation 1707-1837* (London: Pimlico, 2003 [1992]); P. Mandler, *The English National Character: The History of an Idea from Edmund Burke to Tony Blair* (New Haven, CT: Yale University Press, 2006).

<sup>31</sup> R. J. C. Young, *The Idea of English Ethnicity* (Oxford: Blackwell Publishing, 2008), p. 232.

<sup>32</sup> Colley, *Britons*, p. 5.

<sup>33</sup> *Ibid.*, p. 252.

<sup>34</sup> French, *Raising Churchill's Army*, p. 21; W. Funnell, 'Social Reform, Military Accounting and the Pursuit of Economy during the Liberal Apotheosis, 1906-1912', *Accounting History Review* 21 (1) (2011), p. 72.

Instead, character was thought to be more important than intelligence, whilst improvisation had been of great benefit to the nation.<sup>35</sup> Character was a central feature of Victorian political thought, particularly during the mid-nineteenth century. According to Stefan Collini, the idea of character was about ‘mental and moral qualities, which distinguished an individual or race viewed as a homogeneous whole’.<sup>36</sup> Put simply, it was concerned with the idea of an isolated individual maintaining his will in the face of adversity.<sup>37</sup> This adversity was usually cast as military or sporting in nature. From the 1830s onwards, the rise of organised games was well under way. Cricket, for example, was particularly glorified. For the Victorians, it was a ‘national symbol’ because it was ‘an exclusively English creation unsullied by oriental or European influences’.<sup>38</sup> One could argue that British character in the Victorian period was typified by the phrase: ‘it’s not cricket’. Loaded and emotive, this phrase was used to denote any despicable act that was ‘immoral, ungentlemanly, or improper’.<sup>39</sup> Essentially, it was reserved for any act deemed to be ‘un-British’.

Tied to the rise of organised sports were concepts such as the ‘Corinthian Spirit’ and the ‘Gentleman Amateur’, along with the ideologies of athleticism and Muscular Christianity. This latter ideology considered that participation in sport could contribute to the development of Christian morality, physical fitness, and manliness. However, manliness was not simply the outward display of physical strength; it also signified duty and moral courage. Such ideologies nurtured the ‘mind-set of the Empire’s ruling elites’.<sup>40</sup> The physical and moral value of sport in the public consciousness was promoted by the public school system, idealised by Thomas Hughes, an advocate of Muscular Christianity, in his *Tom Brown* books. For Hughes, sport was designed ‘to try the muscles of men’s bodies, and the endurance of their hearts, to make them

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<sup>35</sup> French, *Raising Churchill’s Army*, p. 21.

<sup>36</sup> S. Collini, ‘The Idea of “Character” in Victorian Political Thought’, *Transactions of the Royal Historical Society* 35 (1985), p. 33.

<sup>37</sup> *Ibid.*, p. 47.

<sup>38</sup> K. A. P. Sandiford, ‘Cricket and the Victorian Society’, *Journal of Social History* 17 (2) (1983), p. 303.

<sup>39</sup> *Ibid.*

<sup>40</sup> M. Huggins, *The Victorians and Sport* (London: Palgrave Macmillan, 2004), p. 221.

rejoice in their strength'.<sup>41</sup> In the final cricket match in *Tom Brown's School Days*, for example, the eponymous hero discussed the benefits of the game with his friend, George Arthur, and one of the masters:

“...But it's more than a game. It's an institution,” said Tom.  
“Yes,” said Arthur, “the birthright of British boys old and young, as *habeas corpus* and trial by jury are of British men.”  
“The discipline and reliance on one another which it teaches is so valuable, I think,” went on the master, “it ought to be such an unselfish game. It merges the individual in the eleven; he doesn't play that he may win, but that his side may”.<sup>42</sup>

The pre-eminence of organised games, particularly in the public schools, also gave rise to the belief that sport and war were in some sense the same.<sup>43</sup> Sport was war without the adversity, while war was simply the ‘greater game’ as immortalised in Sir Henry Newbolt's poem, *Vitai Lampada*. As Collini argues, the values of teamwork and self-reliance, of concentration and courage, of obedience and initiative, were presented as unproblematically compatible.<sup>44</sup> As we shall see in later chapters, this latter pairing of obedience and initiative was far from unproblematic for the British army. During the First World War, individuals like Lord Northcliffe used the British predilection for organised sports as propaganda to explain why the British were superior to their German adversary. According to Northcliffe:

Our soldiers are individual. They embark on little individual enterprises. The German... is not so clever at these devices. He was never taught them before the war, and his whole training from childhood upwards has been to obey, and to obey in numbers. He has not played individual games. Football, which develops individuality, has only recently been introduced into Germany in comparatively recent times. His amusements have been gymnastic discipline to the word of command...<sup>45</sup>

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<sup>41</sup> T. Hughes, *Tom Brown's School Days* (London: Macmillan and Co, 1900 [1857]), p. 33.

<sup>42</sup> *Ibid.*, p. 289.

<sup>43</sup> T. Mason and E. Riedi, *Sport and the Military: The British Armed Forces, 1880-1960* (Cambridge: Cambridge University Press, 2010), pp. 3-4.

<sup>44</sup> Collini, ‘Idea of “Character”’, p. 49.

<sup>45</sup> A. C. W. Harmsworth (1st Viscount Northcliffe), *Lord Northcliffe's War Book* (New York, NY: George H. Doran Company, 1917), p. 86.

Unlike the perceived German ‘gymnastic discipline’ to command, the British were devoted to ‘amateurishness’.<sup>46</sup> For some outsiders, this tendency towards amateurism and ‘muddling through’ was an intriguing and a very British phenomenon. Writing in 1904, the American literary critic, Bliss Perry, noted that the glorification of amateur qualities ‘is all the more curious because of our pronounced national distaste for ineffectiveness. The undisguisedly amateurish traits of unskillfulness and desultoriness have not been popular here’.<sup>47</sup> According to Peter Mandler, the ‘Boer War bungling’ in autumn 1900 led to the ‘nation of shopkeepers’ being described as the ‘nation of amateurs’.<sup>48</sup> He argued that it marked the point where the English way of business began to be described as ‘muddling through’ – a ‘more critical observation’ than it would become after the First World War.<sup>49</sup> For the army, its poor performance during the Boer War resulted in reform and soul searching. For some, its failings signified the need to embrace a formal doctrine. However, this need was tempered by the British soldier’s character and, as we shall see, Britain’s geostrategic realities. Those opposed to a formal doctrine pointed to the dangers of dogma and the stifling of initiative.

That the army did not develop a formal doctrine following the Boer War was not a case of amateurism winning out over professionalism. The army’s reemphasis on values such as initiative, common sense, instinct, and determination provided a framework that better suited its myriad commitments. These values – espoused in Robertson’s 1916 letter - endured throughout the First World War. Commenting on the 4th Australian Brigade’s training exercise in February 1915, Colonel William Braithwaite (General Staff Officer [GSO] 1, New Zealand and Australian Division) remarked on the ‘want of initiative’ of one battalion commander and cautioned that it was ‘altogether inadvisable to lay down any such hard and fast rule’ as it ‘must

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<sup>46</sup> T. W. Heyck, ‘Myths and Meanings of Intellectuals in Twentieth-Century British National Identity’, *Journal of British Studies* 37 (2) (1998), p. 199; R. Scruton, *England: An Elegy* (London: Pimlico, 2001), pp. 57-59.

<sup>47</sup> B. Perry, *The Amateur Spirit* (Boston, MA: Houghton Mifflin Company, 1915 [1904]), p. 18.

<sup>48</sup> Mandler, *English National Character*, p. 138.

<sup>49</sup> *Ibid.*

be left to the initiative' of the individual.<sup>50</sup> Such values remained important during the latter stages of the war. In June 1917, the British Salonika Force's [BSF] summer training programme reemphasised the importance of 'the unshakeable determination of each individual to achieve success'; that, despite the 'scientific additions and the growth of numbers', the physical, mental, and moral quality of the individual was paramount.<sup>51</sup> In July 1918, Major-General Sir William Heneker (General Officer Commanding [GOC], 8th Division) commented on the continuing need for 'ginger and common sense', particularly in training.<sup>52</sup> Flexibility was the army's watchword, particularly given the tension between its continental and colonial commitments. This tension contributed to the second factor that shaped the army's ethos: Britain's geostrategic situation.

Unlike its continental neighbours, the British army did not know who or where it would fight next. It had to prepare for numerous different roles in a variety of different geographical and cultural environments throughout a global empire.<sup>53</sup> A 1911 memorandum from the British General Staff neatly summed up this uncertainty:

We must remember that our officers must be prepared to fight in every country on the globe. Arrangements that are desirable in England, or even on the continent of Europe, will be very different from those which will be necessary in South Africa, or on the North Western Frontier of India.<sup>54</sup>

Despite this, successive governments had failed to provide a clear statement of what they saw as being the army's priorities. In fact, the 1888 Stanhope Memorandum provided the most recent outline of the army's responsibilities. Of the five priorities listed, aid to the civil power in the United Kingdom was placed first, provision of drafts for India second, provision of garrisons for

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<sup>50</sup> Australian War Memorial [AWM], Papers of General Sir J. Monash, 3DRL/2316 3/6, Braithwaite to Monash, 19 February 1915.

<sup>51</sup> TNA, WO 95/4757, BSF GHQ War Diary, 'Summer Training', 17 June 1917.

<sup>52</sup> Imperial War Museum [IWM], Papers of General Sir I. Maxse, PP/MCR/C42 13/53-58, Heneker to Maxse, 9 July 1918.

<sup>53</sup> Palazzo, *Moltke to Bin Laden*, p. 24.

<sup>54</sup> Quoted in H. Strachan, 'The British Army, its General Staff and the Continental Commitment', 1904-1914', in D. French and B. Holden Reid (eds.), *The British General Staff: Reform and Innovation* (London: Frank Cass, 2002), p. 91.

colonies and coaling stations third, home defence fourth, whilst the employment of an expeditionary force on the continent occupied last place.<sup>55</sup> At the time, such an ordering made political and military sense. Fenian activities and agitation were still a threat to the safety of the nation with attacks on the mainland from 1881-1885.<sup>56</sup> According to Robertson, however, this focus on aid to the civil power meant that ‘mobilisation plans dealt principally with home defence, and that broad military plans essential for the defence of the Empire as a whole received no adequate treatment’.<sup>57</sup> The understanding with France and the increasing threat of German hegemony in Europe suggested that the provision of an expeditionary force for the continent was increasingly likely. Even so, the army was still mindful of its colonial commitments. As Tim Bowman and Mark Connelly argue, on the outbreak of the First World War, the most effective part of the British army remained in India.<sup>58</sup>

As a result of its multiple commitments, the army was loth to prioritise one set of lessons over another. It also appeared reluctant to apply the lessons learned from its nineteenth century small wars to a larger conflict against a major power. For example, General Sir Frederick Roberts’ troops had gained considerable experience in hill warfare against Afghan irregulars in 1879-1880. However, many officers who took part in the invasion of Afghanistan were cautious about applying the lessons of that campaign to the quite different circumstances they might encounter if confronting a regular Russian army across the same terrain.<sup>59</sup> According to Edward Spiers, some officers deprecated this colonial experience. In 1889, Colonel Lonsdale Hale, for example, observed that:

An officer who has seen service must sweep from his mind all recollections of that service, for between Afghan, Egyptian, or Zulu warfare and that of Europe,

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<sup>55</sup> See I. F. W. Beckett, ‘The Stanhope Memorandum of 1888: A Reinterpretation’, *Bulletin of the Institute of Historical Research* 57 (136) (2007), pp. 240-247; I. F. W. Beckett, ‘Edward Stanhope at the War Office, 1887-1892’, *Journal of Strategic Studies* 5 (2) (1982), pp. 278-307.

<sup>56</sup> I. F. W. Beckett, *Victorians at War* (London: Hambledon Press, 2003), pp. 153-154.

<sup>57</sup> W. R. Robertson, *From Private to Field Marshal* (London: Constable and Co., 1921), p. 92.

<sup>58</sup> Bowman and Connelly, *Edwardian Army*, pp. 216-217.

<sup>59</sup> T. R. Moreman, *The Army in India and the Development of Frontier Warfare, 1849-1947* (Basingstoke: MacMillan, 1998), pp. 38-41; D. French, *Military Identities: The Regimental System, the British Army, and the British People, c. 1870-2000* (Oxford: Oxford University Press, 2005), p. 65.

there is no similarity whatever. To the latter the former is merely the play of children.<sup>60</sup>

As a result, there was a tendency to refocus on the continental lessons of Plevna or Gravelotte, rather than those of Majuba Hill or Tirah. The variety of these colonial campaigns and their small scale tended to leave little mark on the army as a whole.<sup>61</sup>

Owing to the sheer diversity of conditions, the tactics required for one war could be markedly different for the next. General Sir Neville Lyttelton, the first Chief of the General Staff, remarked:

Few people have seen two battles in succession in such startling contrast as Omdurman and Colenso. In the first, 50,000 fanatics streamed across the open regardless of cover to certain death, while at Colenso I never saw a Boer all day until the battle was over, and it was our men who were the victims.<sup>62</sup>

The army had to be flexible, yet this often led to an incomplete and far from uniform approach. For example, those units who had served on the North West Frontier focused on the individual soldier's initiative and marksmanship, placing a premium on fighting in open order. Sir Ian Hamilton's successful attack at Elandsplaagte in 1899, for example, involved infantry in open order formation, a flanking manoeuvre, and cavalry.<sup>63</sup> As a veteran of the North West Frontier, Hamilton recognised the similarities between Boers and Afghans. However, such initiatives were limited to individual commanders and formations. Units or commanders who had experienced warfare in the Sudan against the Mahdi's forces often continued to rely on close order, volley-firing, and the bayonet.<sup>64</sup> Major-General Arthur Fitzroy Hart, a veteran of the Zulu

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<sup>60</sup> Quoted in E. Spiers, *The Late Victorian Army, 1868-1902* (Manchester: Manchester University Press, 1992), p. 246.

<sup>61</sup> S. Jones, *From Boer War to World War: Tactical Reform of the British Army, 1902-1914* (Norman, OK: University of Oklahoma Press, 2012), pp. 20-21.

<sup>62</sup> N. Lyttelton, *Eighty Years: Soldiering, Politics, Games* (London: Hodder and Stoughton, 1927), p. 212

<sup>63</sup> N. Evans, 'Boer War Tactics Re-examined', *Journal of the Royal United Services Institute [JRUSI]* 145 (4) (2000), pp. 71-76; M. Ford, 'The British Army and the Politics of Rifle Development, 1880 to 1986', PhD thesis, University of London, 2008, pp. 30, 89-90.

<sup>64</sup> M. A. Ramsey, *Command and Cohesion: The Citizen Soldier and Minor Tactics in the British Army, 1870-1918* (Westport, CT: Praeger, 2002), p. 92.

and Sudan wars, typified this approach at Colenso in 1899. Unlike Hamilton, Hart advanced his 5th Brigade in close order quarter columns up to the Boer lines with disastrous results.

The army's conflicting geostrategic priorities were further compounded by military initiatives, such as the establishment of the General Staff in 1906 and the publication of *FSR* in 1909. Rather than providing the army with a formal, authoritative doctrine, both served to reinforce the army's initiative-driven ethos. The impact of the General Staff will be considered first.

According to Pope-Hennessy, the British General Staff 'selected for the Army a "method of action" [yet] it has failed to give it a "doctrine of war"'.<sup>65</sup> Unlike the German General Staff, the British General Staff lacked its own identity and spirit. It also lacked power, status, and influence over the army itself. These limitations were partly due to ineffective leadership by its first chief, Neville Lyttelton, and its own confused *raison d'être*. The question of whether the army should adopt a German model General Staff was an important consideration throughout the late Victorian era. In 1887, Major-General Sir Henry Brackenbury lamented that 'want of any such great central thinking department is due to that want of economy and efficiency which to a certain extent exists in our army'.<sup>66</sup> The Hartington Commission in 1889-1890 called for the establishment of a Chief of Staff, but this was rejected for a number of reasons, including financial implications, Liberal opposition, and fear that a General Staff might engender Prussian militarism. There was also concern that a General Staff would prepare for continental war, rather than respond to imperial crises.<sup>67</sup> Published on the same day as the Hartington Commission's report, Spenser Wilkinson's *The Brain of an Army* was vocal in its call for a General Staff. For Wilkinson, the commission's proposals did not go far enough. He feared that a Chief of Staff would be given 'no authority over the army', merely

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<sup>65</sup> Pope-Hennessy, 'Modern Conceptions of War', p. 346.

<sup>66</sup> S. Wilkinson, *The Brain of an Army* (2nd edn., London: Archibald Constable, 1895), p. 39.

<sup>67</sup> H. Kochanski, 'Planning for War in the Final Years of Pax Britannica, 1889-1903', in French and Holden Reid (eds.), *The British General Staff*, pp. 11-12.



the ‘general power to meddle’.<sup>68</sup> In 1904, the appointment of Commander-in-Chief was abolished and replaced by an Army Council. On this Council, the Chief of the General Staff was *primus inter pares*. However, he neither inherited nor acquired the same authority that Commanders-in-Chief had enjoyed in the past. Wilkinson’s earlier fears proved to be correct.

The eventual establishment of the General Staff in 1906 suggested a growing professionalism within the army. However, the General Staff lacked a clear remit and a clear direction. Even had it wanted to, the army was unable to model its General Staff on the German system. The British General Staff was not a dominant institution like its German counterpart. The Chief of the General Staff had to negotiate and deal with both the Adjutant General and the Quartermaster General. Additionally, despite calls from Wilkinson and Brackenbury, it was neither able nor designed to serve as the brain of the army and lacked the power to develop and enforce doctrine. Underpinning the differences between the two General Staffs were the geostrategic realities of each country. Germany’s strategic problem was relatively clear-cut: it had to defend its eastern and western frontiers.<sup>69</sup> However, in Britain’s case, the sheer number of scenarios it might face, given its hugely diffuse empire, precluded any simple, narrow definition of purpose and aim.<sup>70</sup> The General Staff had to balance attempts at continentalism with the country’s imperial commitments.

Further undermining the General Staff’s influence was the army’s lack of scale and political visibility, particularly when compared to the Royal Navy. Successive governments were simply unwilling to spend money on the army when they were pursuing a naval arms race. As First Sea Lord, Admiral Sir John ‘Jacky’ Fisher lamented that ‘every penny spent on the army is a penny taken from the Navy’.<sup>71</sup> The unwillingness to spend was also underpinned by traditional Liberal distrust of the army, as well as the Liberal party’s commitment to social

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<sup>68</sup> J. Luvaas, *The Education of an Army: British Military Thought, 1815-1940* (London: Cassell, 1965), pp. 261-262.

<sup>69</sup> Strachan, ‘Continental Commitment’, p. 86.

<sup>70</sup> Bowman and Connelly, *Edwardian Army*, pp. 65-66.

<sup>71</sup> Quoted in N. A. Lambert, *Sir John Fisher’s Naval Revolution* (Columbia, SC: University of South Carolina, 1999), p. 88.

reforms at the expense of military spending. Without a clear role, the General Staff was far removed from Wilkinson's original conception: that it can only 'perform its functions... in connection with a body adapted to its control, and united with it by the ramifications of a nervous system'.<sup>72</sup> From the beginning, the General Staff fought for acceptance within an army that prioritised individual initiative and ultimately sought a universal, rather than just a continental, approach to war.

As we have seen, the army's lack of common strategic purpose, coupled with the embryonic nature of its General Staff, impeded its ability to develop a clear doctrine. John Gooch has remarked that 'the differences in practice and in outlook across the globe... made the search for general uniformity in empire, dominion and colony something of a fruitless task'.<sup>73</sup> The production of an over-specific doctrine would be a positive danger. This was realised by military figures at the time. In a draft article entitled 'The Doctrine of a "Doctrine"', Capper asked the following of his readers: 'can we imagine a "doctrine" which will meet the ever varying conditions in which a British army, with its many degrees of organisation, composition, qualities of individuals, standards of training, [and] possible theatres of operations, may find itself'?<sup>74</sup> He went on to assert that 'a doctrine of procedure, of necessity, leads to one type and one system'.<sup>75</sup> Adherence to a single doctrine that 'attempts to apply itself to every possible and universal requirement' was dangerous.<sup>76</sup> Instead, the army stressed pragmatism and flexibility, rather than formalism and rigidity. It was against this backdrop that *FSR* was formulated.

Prior to 1909, the army had begun to move from an organisation focused on drill and obedience to one that used initiative guided by Jominist principles. Following the army's poor performance during the Boer War, the training manuals produced from 1902 onwards pushed for greater initiative and less rigidity. However, this did not alleviate the difficulties of

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<sup>72</sup> Wilkinson, *Brain of an Army*, p. 97.

<sup>73</sup> J. Gooch, "'A Particularly Anglo-Saxon Institution': The British General Staff in the Era of Two World Wars', in French and Holden Reid (eds.), *The British General Staff*, p. 196.

<sup>74</sup> LHCMA, Shea Papers, 2/5, 'Doctrine of a "Doctrine"', p. 3.

<sup>75</sup> LHCMA, Papers of Brigadier-General T. Capper, 2/4/20, Ms draft of 'The Doctrine of a "Doctrine"', n.d. (c. 1912), p. 9.

<sup>76</sup> LHCMA, Shea Papers, 2/5, 'Doctrine of a "Doctrine"', p. 5.

balancing initiative and control. The preface to *Combined Training* (1902), the army's first 'modern all-arms manual', stressed that the principles within 'have been evolved by experience as generally applicable to the leading of troops in war'. These principles, however, were to 'be regarded as pointing out the dangers involved rather than as precepts to be blindly obeyed'.<sup>77</sup> As Nick Evans has argued, the publications emphasised thought, principles, and cooperation, but they were not prescriptive in nature.<sup>78</sup> *Infantry Training* (1905), for example, stated that it was 'impossible to lay down a fixed and unvarying section of attack or defence... It is therefore strictly forbidden either to formulate or to practise a normal form of either attack or defence'.<sup>79</sup>

The reluctance to embrace one single, authoritative doctrine was reinforced by the publication of *FSR* in 1909. The publication was split into two parts: Part I dealt with operations, while Part II focused on organisation and administration. This section will limit its comments to Part I, as it was this first part that generated, and continues to generate, discussion. *FSR* has been held up by some to be a work 'of the greatest value for the inculcation of one central doctrine'.<sup>80</sup> For one captain, it was 'the Bible of the Army'.<sup>81</sup> Though *FSR* provided a documented snapshot of the army's ethos prior to the First World War, it did not provide a uniform doctrine. The introduction to *FSR* spoke of principles rather than prescription, but such principles 'should be so thoroughly impressed on the mind of every commander that, whenever he has to come to a decision in the field, he instinctively gives them their full weight'.<sup>82</sup> The focus here was on instinct and initiative. This was explored further in the second chapter 'Inter-Communication and Orders', which stressed the flexibility, individuality, and freedom afforded to junior commanders. It advised that:

An operational order... should tell him nothing which he can and should arrange for himself. The general principle is that the object to be attained... should be briefly but clearly stated; while the method of attaining the object

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<sup>77</sup> War Office, *Combined Training (Provisional)* (London: HMSO, 1902), pp. 3-4.

<sup>78</sup> Evans, 'From Drill to Doctrine', p. 316.

<sup>79</sup> War Office, *Infantry Training* (London: HMSO, 1905), p. 123; Jones, *Boer War to World War*, p. 52.

<sup>80</sup> J. Dunlop, *The Development of the British Army, 1899-1914* (London: Methuen, 1938), pp. 291-292.

<sup>81</sup> R. H. Beadon, 'The Business Man and the Army', *JRUSI* 62 (1917), p. 288.

<sup>82</sup> General Staff, *Field Service Regulations Part 1* (London: HMSO, 1909), p. 13.

should be left to the utmost extent to the recipient, with due regard to his personal characteristics... It is usually dangerous to prescribe to a subordinate at a distance of anything that he should be better able to decide on the spot, with a fuller knowledge of local conditions, for any attempt to do so may cramp his initiative...<sup>83</sup>

It was clear that the army understood the importance of decentralised command. It placed a premium on initiative and flexibility. However, the discussion lacked specifics. How would this decentralisation actually work on the battlefield? At what level of command could subordinates sensibly exercise initiative? Such questions were left unanswered. According to Palazzo, sections on the conduct of battle were ‘presented so poorly and vaguely as to be virtually useless’.<sup>84</sup> This is unfair. Those sections on all-arms cooperation, the principles of envelopment, and planning an offensive were presented in a clear and tangible manner.<sup>85</sup> When framing orders for an attack, for example, *FSR* provided a list of the various aspects of such an order, including the objective, limits of front, direction of attack, and command flexibility.<sup>86</sup> However, for Pope-Hennessy, an advocate for a ‘definite doctrine’, such principles were not tangible enough:

There is... a dictum which we are unable to accept without considerable reservation. It is this: ‘... success depends not so much on the inherent soundness of a principle or plan of operations as on the method of application of the principle and the resolution with which the plan is carried out’. As it stands this dictum is *so like a platitude as to be convincing in its simplicity, and yet it is liable, if not rightly interpreted, to lead an army very far down the smooth path of loose thinking which leads to disaster.*<sup>87</sup>

However, other commentators, such as Capper, were far more positive. He thought *FSR* an ‘excellent and sufficient guide. They describe... which method may *probably* be found

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<sup>83</sup> *Ibid.*, p. 27.

<sup>84</sup> Palazzo, *Moltke to Bin Laden*, p. 26.

<sup>85</sup> General Staff, *Field Service Regulations*, pp. 14, 129-130, 22-23; Mitchell, ‘32nd Division’, pp. 41-43.

<sup>86</sup> *Ibid.*, p. 132.

<sup>87</sup> Pope-Hennessy, ‘Modern Conceptions of War’, p. 342. Added emphasis.

generally most suitable... and they provide clear and simple principles for the application of *any* method'.<sup>88</sup>

Although *FSR* was formulated against the backdrop of colonial warfare, it was intended for use in all situations, including operations against a major power on the continent. The appearance of *FSR* allows for comparison with similar publications issued by the French and German militaries at this time.<sup>89</sup> Indeed, the British army's decision to produce its own regulations could be seen as an attempt to emulate these continental publications. Certainly, for Douglas Haig, *FSR* was designed for the eventuality of a major continental war.<sup>90</sup> Haig, as Director of Military Training and then Director of Staff Duties, was one of the key architects of *FSR*. In his *Final Despatch* in 1919, Haig stood by the applicability of *FSR*, noting that 'the principles of command, Staff work and organisation elaborated before the war have stood the test imposed upon them and are sound'.<sup>91</sup> He went on to state that, although 'some modification of existing ideas and practice will be necessary... if our principles are sound these will be few and unimportant'.<sup>92</sup> This was a view promoted at the highest levels of command. A May 1917 memorandum from Lieutenant-General Sir Richard Butler, Deputy Chief of the General Staff [CGS] on the Western Front, reminded each Army that 'the pre-war manuals remain in force and that the instructions issued by GHQ are merely amplifications of these manuals'.<sup>93</sup> The relevance of *FSR* found support further down the chain of command and within the army's subsidiary theatres. Following the battle of Beersheba in October 1917, Major-General Sir John Shea (GOC 60th Division) remarked that 'the principles laid down in *Field Service Regulations Part I* once more proved to be absolutely sound, and there is little to add to them'.<sup>94</sup> On the Italian front in December 1917, Major-General Sir Herbert Shoubridge (GOC 7th Division)

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<sup>88</sup> LHCMA, Shea Papers, 2/5, 'Doctrine of a "Doctrine"', p. 6. Original emphasis.

<sup>89</sup> The German army's updated *Felddienst-Ordnung* appeared in 1908, whilst the French army's revised *Règlement de Manoeuvre d'Infanterie* was published in 1904.

<sup>90</sup> Strachan, 'Continental Commitment', p. 92.

<sup>91</sup> J. H. Boraston (ed.), *Sir Douglas Haig's Despatches (December 1915 – April 1919)* (London: J. M. Dent and Sons, 1919), p. 343.

<sup>92</sup> *Ibid.*, p. 344.

<sup>93</sup> AWM, AWM25 947/76, Infantry Training – France 1917, Butler to GOCs Armies, 6 May 1917.

<sup>94</sup> LHCMA, Shea Papers, 4/3, 'Notes on the Fighting in Palestine', n.d. (c. November 1917).

stressed the ‘necessity for studying open-warfare’ as outlined in *FSR* and that this was to be the subject of ‘Brigade, Battalion, Battery and Company Conferences’.<sup>95</sup>

While *FSR* had its supporters, some generals questioned its applicability. Robertson, for example, noted that ‘*Field Service Regulations* will require a tremendous amount of revising... Principles, as we used to call them, are good and cannot be disregarded, but their application is a very difficult business, and I think that we still take those principles too literally’.<sup>96</sup> Though praising *FSR* to Lieutenant-General Sir Ivor Maxse in September 1918, Major-General Cyril Deverell (GOC 3rd Division) inadvertently underlined its lack of specifics. For Deverell, *FSR* was ‘a work that requires to be read and reread and I know that after many years of study of it I always find some new point or a different aspect of the point which strikes me every time that I open it’.<sup>97</sup> Its inherent flexibility was both a strength and a weakness. With its mantra of deference to the man on the spot, it encouraged individual initiative, but, conversely, its lack of guidance resulted in a proliferation of different interpretations and tactical methods.

Despite the establishment of the General Staff and the publication of *FSR*, the advocacy and application of particular techniques remained the prerogative of the individual commander. This resulted in an individualised and personality-driven approach to problem solving and learning. It was an approach that prized ‘common sense’, whilst shunning stereotyped thinking and prescription. This attitude was underpinned by the fourth factor that shaped the army’s ethos: the homogeneity and influence of the officer corps. A number of historians have examined the background and relative homogeneity of the Edwardian army officer corps, so it is not necessary to go into detail here.<sup>98</sup> However, it is worth highlighting certain commonalities that existed within the officer corps that shaped its uniformity, notably its social background, education, and leisure pursuits.

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<sup>95</sup> TNA, WO 95/4218, 7th Division GS War Diary, Divisional Commander’s Conference, 2 December 1917.

<sup>96</sup> LHCMA, Robertson Papers, 8/4, Robertson to Rawlinson, 26 July 1916.

<sup>97</sup> IWM, Maxse Papers, PP/MCR/C42/60, Deverell to Maxse, 4 September 1918.

<sup>98</sup> See, for example, G. D. Sheffield, *Leadership in the Trenches: Officer-Man Relations, Morale, and Discipline in the British Army in the Era of the First World War* (Basingstoke: Macmillan, 2000); Robbins, *British Generalship*; Bowman and Connelly, *Edwardian Army*.

Regular army officers were drawn from a fairly small section of British society. There was a strong link between the landed classes and the military. P. E. Razzell estimated the proportion of officers from landed classes, namely the aristocracy and the gentry, as 53 per cent in 1830, 50 per cent in 1875, and 41 per cent in 1912.<sup>99</sup> Spiers suggests that amongst senior officers in 1914, 42 per cent were from the landed classes, 25 per cent from an armed forces background, 6 per cent from the clergy, and 27 per cent from other professions.<sup>100</sup> In hindsight, we can see that the demography of the officer corps broadened in the lead up to the First World War, yet it was still overwhelmingly Anglo-Saxon, Protestant, and upper class.<sup>101</sup> Kinship or marriage also served to enhance the homogeneity of the officer corps. Major (later Lieutenant-General Sir) Hew Fanshawe married the daughter of Field Marshal Sir Evelyn Wood, for example; while a number of officers and generals were brothers-in-law, including Field Marshal Lord Cavan and General Sir Julian Byng, Field Marshal Lord Chetwode and General Sir Noel Birch, and Major-General Sir John Shea and Lieutenant-General Sir Walter Congreve VC.<sup>102</sup>

The educational background of the officer corps reinforced this class consciousness. From his sample of 700 senior commanders and staff officers who served on the Western Front during the First World War, Robbins has shown that 537 officers (77 per cent) attended public school; of whom 93 (13 per cent) attended Eton.<sup>103</sup> The bulk of the officer corps came from a very narrow band of schools, namely Eton, Cheltenham, Clifton, Harrow, Marlborough, and Wellington.<sup>104</sup> Attendance at the same school formed an important social network for officers. Indeed, some Anglo-Irish officers were sent to English public schools in order to ‘establish the social networks they would later need’.<sup>105</sup> During the First World War, the ‘old school tie’ manifested itself in the numerous school, university, and regimental dinners that took place on

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<sup>99</sup> P. E. Razzell, ‘Social Origins of Officers in the Indian and British Home Army’, *British Journal of Sociology* 14 (3) (1963), p. 253.

<sup>100</sup> Spiers, *Late Victorian Army*, p. 94.

<sup>101</sup> Robbins, *British Generalship*, p. 3.

<sup>102</sup> I am grateful to Dr John Bourne for his assistance on this point.

<sup>103</sup> Robbins, *British Generalship*, pp. 205-206.

<sup>104</sup> Bowman and Connelly, *Edwardian Army*, p. 10.

<sup>105</sup> N. Perry, ‘The Irish Landed Class and the British Army, 1850-1950’, *War in History* 18 (3) (2011), p. 317.

all fronts during the war. These dinners, often advertised in the General Routine Orders [GROs] of each expeditionary force, served to provide extra lubricant for the mechanics of socialisation.<sup>106</sup> Old Etonians throughout the army's theatres celebrated the 'Fourth of June'; while Brigadier-General Ernest Craig-Brown, an old boy of Merchiston Castle School, arranged a dinner in August 1918 for over fifty 'old academy' boys in the BSF who had attended Fettes, Glenalmond, Loretto, and Merchiston.<sup>107</sup>

The public school system aimed to instil certain values within its pupils, such as character, initiative, integrity, and loyalty. These values reflected what it meant to be a gentleman or, perhaps more importantly, an 'English gentleman'. Indeed, the public school system had, perhaps, the 'largest share in moulding the character' of such a man.<sup>108</sup> However, the term 'gentleman' was not a static concept. Indeed, it is so amorphous that it eludes simple definition. According to Christine Berberich, the idea of the gentleman is better illustrated than defined; it comprises 'so many values – from behaviour and morals to education, social background, the correct attire and table manners – that it would... be restrictive to limit it to just one brief, defining sentence'.<sup>109</sup> To be a gentleman meant different things to different people throughout history. In 1714, Richard Steele commented that 'the appellation of Gentleman is never to be affixed to a man's circumstances, but to his Behaviour in them'.<sup>110</sup> An 1845 article in *The Spectator* declared that the 'English gentleman is that ideal character which all Englishmen aspire to be, or at least to be thought'.<sup>111</sup> After listing the various qualities of the gentleman - physically and morally brave, veracious, educated, humane, and decorous – the

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<sup>106</sup> See C. Moore-Bick, *Playing the Game: The British Junior Officer on the Western Front 1914-1918* (Solihull: Helion, 2011), pp. 181-184. See also TNA, WO 123/293, General Routine Orders – Salonika Nos. 297 (15 January 1918), 330 (10 May 1918), and 331 (14 May 1918).

<sup>107</sup> IWM, Papers of Brigadier-General E. Craig-Brown, Con Shelf 1/4 Vol 11, Craig-Brown to wife, 10 August 1918.

<sup>108</sup> P. Parker, *The Old Lie: The Great War and the Public-School Ethos* (London: Constable, 1987), pp. 41-42.

<sup>109</sup> C. Berberich, *The Image of the English Gentleman in Twentieth-Century Literature* (Aldershot: Ashgate, 2007), p. 5.

<sup>110</sup> Quoted in Berberich, *English Gentleman*, p. 6.

<sup>111</sup> 'The English Gentleman', *The Spectator*, 22 February 1845, p. 22.



author outlined the perception of the gentleman by ‘the mob’ or the lower classes: the mob had ‘never been long faithful to any leader who was not by education and habits a gentleman’.<sup>112</sup>

For the Edwardian officer corps, to be an officer was to be a gentleman. Some officers, such as Captain Reginald Hawker, an Old Wykehamist, believed one could not simply become a gentleman unless born to it. Remarking on a lecture entitled ‘Duties of an Officer’, Hawker hoped it was ‘addressed to Officers of K[itcheener]’s Army who have had *no chance* of learning how to be gentlemen’.<sup>113</sup> However, as Martin Petter has argued, some Kitchener army officers had educational and social backgrounds that were not ‘radically different’ from those of the pre-war officer class.<sup>114</sup> If, Petter argued, a Kitchener army officer lacked gentlemanly qualities, it might simply have been ‘in the sense of not possessing a private income, not sharing the regular’s interest in landed pursuits, or not having attended a sufficiently exclusive school’.<sup>115</sup> To be a gentleman did not necessarily confer the full range of professional ability, however. Commenting on the Australian general, Sir Harry Chauvel, Lieutenant-General Sir William Birdwood noted that he was ‘a very nice fellow and a gentleman’, but lacked ‘great character or ability’.<sup>116</sup> Similarly, in a June 1915 letter to the War Office, Major-General Walter Braithwaite (CGS, Mediterranean Expeditionary Force [MEF]) remarked that, although the new Inspector-General of Communications [IGC] of the MEF was a ‘very worthy and charming gentleman’, he ‘knows nothing whatever about the organisation of the British Army’.<sup>117</sup>

In addition to the ‘old school tie’ of the public schools, shared attendance at the military colleges, the Staff College, or membership of a regiment also played an important role in nurturing desired qualities, as well as fostering links between British officers. In his

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<sup>112</sup> *Ibid.*

<sup>113</sup> National Army Museum [NAM], Papers of Captain R. S. Hawker, 1988-09-86, Diary, 20 January 1916. Original emphasis.

<sup>114</sup> M. Petter, ““Temporary Gentlemen” in the Aftermath of the Great War: Rank, Status and the Ex-Officer Problem’, *Historical Journal* 37 (1) (1994), p. 139.

<sup>115</sup> *Ibid.*

<sup>116</sup> AWM, Papers of Senator Sir George Pearce, 3DRL/2222 2/11, Birdwood to Munro Ferguson, 9 May 1917.

<sup>117</sup> TNA, WO 107/43, Inspector-General of Communications: Letters, Braithwaite to Cowans, 22 June 1915.

consideration of Major-General Oliver Nugent's career, Nicholas Perry noted that 'hardly any of Nugent's patrons during his career were Irish', and that the most important contacts came from 'operational or regimental links'.<sup>118</sup> General Sir Charles Bonham-Carter's experience also offers a good example of the importance of these operational and regimental links. Following his appointment as head of the Training Directorate at GHQ in October 1917, Bonham-Carter wrote to his sister about his new colleagues:

I know a good number of the men at GHQ so shall be among friends. As a matter of fact of the other three Brig-Gens of the General Staff at GHQ - two, [John] Davidson and [Kenneth] Wigram, were at Sandhurst with me - and Wigram was as you may possibly remember at Winchester with Phil and came and stayed at Woodside once or twice... The Deputy Chief of the GS is [Richard] Butler who was with me at the Staff College and also in the First Army. The Chief of the GS is [Launcelot] Kiggell whom I have known since I served with him in the Warwickshire Regiment.<sup>119</sup>

Such connections were also forged through membership of social networks outside the army, including the church and the freemasons. As we shall see in later chapters, the role of the gentlemen's club was also important in this respect. The officer corps was dominated by the values of the gentry whose leisure pursuits were largely based around horses, hunting, and sport.<sup>120</sup> These pursuits not only reinforced the educational and social exclusivity of the officer corps, but also served to strengthen the social bonds between its members. Cavan, for example, was Master of Foxhounds for the Hertfordshire Hunt, which counted Brigadier-General Charles FitzClarence VC, Brigadier-General Viscount Hampden, and Captain the Honourable Fergus Bowes-Lyon among its members.<sup>121</sup> Such encounters often added colour to future military relationships. Brigadier-General Webb Gillman (Brigadier-General, General Staff [BGGGS],

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<sup>118</sup> Perry, 'Irish Landed Class', p. 330.

<sup>119</sup> Churchill Archives Centre [CAC], Papers of General Sir C. Bonham-Carter, BHCT 2/2, Bonham-Carter to sister, 8 October 1917. 'Phil' refers to Charles Bonham-Carter's older brother, Philip, who died in 1891 aged sixteen.

<sup>120</sup> Robbins, *British Generalship*, p. 5.

<sup>121</sup> G. U. Robins, *Lays of the Hertfordshire Hunt and Other Poems* (London: Arthur L. Humphreys, 1916), pp. 103-112.

BSF, 1917-1918) recalled an eventful hunting anecdote involving Major-General Frederick Koe (IGC, BSF) and Lieutenant-General George Milne (CinC, BSF) before the war:

... the only time Milne met him [Koe]... was some years ago while hunting with the 'United' in Cork, when Koe belted Milne's horse over the nose for shoving its head into his new pink coat. We have pulled Koe's leg and told him that Milne has been looking for him ever since!<sup>122</sup>

As we have seen, the public schools were instrumental in strengthening the interplay between organised sports and war. A similar link was drawn between hunting and war. Contemporaries were well aware of the connections between the regular army and hunting. This connection went beyond the hunt as a 'network of sociability'.<sup>123</sup> It was believed that proficiency in hunting led to proficiency on the battlefield. In his contribution to *Riding and Hunting*, Captain W. H. King highlighted the importance of field sports to competency in military riding, stating that 'most of the officers who join the army have ridden from childhood... They are encouraged to hunt and play Polo from the time they join a regiment, which makes them first-class horsemen'.<sup>124</sup> Lieutenant-Colonel Edwin Alderson's *Pink and Scarlet*, with its subheading 'hunting as a school for soldiering', provides another obvious example. In its preface, Alderson declared that 'the hunting man is already a more than half-made soldier'.<sup>125</sup> The very existence of the yeomanry regiments reinforced this belief.<sup>126</sup> However, as Major-General Sir Arthur Lynden-Bell (CGS EEF, 1915-1917) remarked in September 1916, 'we have got far too many of the grand old Yeomanry type of commanding

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<sup>122</sup> Royal Artillery Institution [RAI], Papers of General Sir W. Gillman, MD 1161 4/19, Salonika Diary, 1 August 1916.

<sup>123</sup> R. W. Hoyle, 'Introduction', in R. W. Hoyle (ed.), *Our Hunting Fathers: Field Sports in England after 1850* (Lancaster: Carnegie Publishing, 2007), p. 14.

<sup>124</sup> W. H. King, 'Military Riding', in M. Horace Hayes, *Riding and Hunting* (London: Hurst and Blackett, 1910 [1901]), p. 296.

<sup>125</sup> E. A. H. Alderson, *Pink and Scarlet* (London: William Heinemann, 1900), p. vii.

<sup>126</sup> See N. Mansfield, 'Foxhunting and the Yeomanry: County Identity and Military Culture', in Hoyle (ed.), *Our Hunting Fathers*, pp. 241-256.

officer and fellows who think that because they can hunt a pack of hounds they can command a Yeomanry brigade'.<sup>127</sup>

The shared educational and social background of the officer corps was shaped by and, in turn, shaped the army's ethos. The values instilled within the officer corps reflected the public school ethos, which was in itself an articulation of what it meant to be British; the one fundamentally supported the other. Initiative, devotion to duty, courage, and obedience were touchstones of what it meant to be both an officer and a gentleman. In addition to these characteristics, the relatively small size of the pre-war army helped promote a highly individualised officer corps. Bonham-Carter's letter, for example, emphasises the close links that existed between officers who knew each other through school, military training, sport, or the regiment. As later chapters will show, these shared networks would play an important role in the development of learning relationships between individuals and operational theatres.

Although the officer corps was fairly homogeneous in its education and social background, the army produced officers and generals that were capable of exerting significant influence. This was enhanced by the army's devolution of authority. As David French has argued, 'unit commanders could on occasion flout higher directives, and sometimes even the orders of their own immediate superiors'.<sup>128</sup> Indeed, according to Stephen Badsey, the lack of an authoritative doctrine pre-1914 resulted from the 'social and organisational structure of the army and of its officer corps, including the formal and informal power of the regiments, and of prominent generals'.<sup>129</sup> Officers did not take kindly to general directives from above which appeared to limit their freedom of action.<sup>130</sup> Unsurprisingly, for certain officers, the General Staff was seen as a challenge to their influence. In an attempt at appeasement, the Army Council declared that nothing in the creation of the General Staff was 'intended to relieve Commanding Officers of their prime responsibility for the efficiency and proficiency of their officers in

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<sup>127</sup> IWM, Papers of Major-General Sir A. L. Lynden-Bell, 90/1/1, Lynden-Bell to Maurice, 19 September 1916.

<sup>128</sup> French, *Military Identities*, p. 270.

<sup>129</sup> Badsey, *Doctrine and Reform*, p. 4.

<sup>130</sup> Griffiths, *Battle Tactics*, p. 26.

institutional and professional respects'.<sup>131</sup> This left unit commanders with considerable scope for developing solutions peculiar to their own formations. In 1907, the Duke of Connaught noted that there was a 'go as you please' attitude towards tactics, and a 'tendency to [form] cliques around particular Generals'.<sup>132</sup> These 'cliques' were exemplified by the Wolseley and Roberts Rings, which proved to be a divisive factor in the politics of the late Victorian army.<sup>133</sup>

The free hand granted to individual officers further undermined the ability to enforce uniformity within the army. This lack of uniformity encouraged a broad range of different training practices and approaches, some of which were 'manifestly wrong'.<sup>134</sup> Although the General Staff was able to issue seemingly binding injunctions, it had very limited means of enforcing them owing to the army's *laissez-faire* tendencies. In spite of this, however, the army decided to establish the position of Inspector-General of the Forces [IGF] in 1904.<sup>135</sup> The duties of the IGF were straightforward in principle. He was to:

... review generally and to report to the Army Council on the practical results of the policy of that Council, and for that purpose to inspect and report upon the training and efficiency of all troops under the control of the Home Government, on the suitability of their armament and equipment, on the condition of fortifications and defences, and generally on the readiness and fitness of the Army for war.<sup>136</sup>

The creation of the IGF led to a system of feedback generation based on lessons learned, inspiring lengthy annual reports on training. However, this system did not necessarily result in uniformity. If a particular regimental commander disagreed with accepted practice, the variance would become apparent in the annual inspection of performance in combined training or

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<sup>131</sup> Strachan, 'Continental Commitment', p. 90.

<sup>132</sup> Quoted in Jones, *Boer War to World War*, p. 51.

<sup>133</sup> H. Kochanski, *Sir Garnet Wolseley: Victorian Hero* (London: Hambledon Press, 1999), p. 272.

<sup>134</sup> TNA, WO 27/504, Memorandum on Military Training, 1905, Aldershot Command. See Bowman and Connelly, *Edwardian Army*, pp. 69-70.

<sup>135</sup> For a fuller exposition of the IGF's role, see N. Evans, 'From Drill to Doctrine. Forging the British Army's Tactics 1897-1909', Unpublished PhD thesis, University of London, 2007, pp. 311-313.

<sup>136</sup> Parliamentary Papers [PP], Order in Council Defining the Duties of the Inspector-General of the Forces [Cd. 2252], XLVI, 1905, p. 301.

manoeuvres. The responsibility for the correction of these variances rested with the Army Council, but whether the correction was made or not is the sticking point.<sup>137</sup>

Despite attempts to unify training methods, the nature of the officer corps served to reinforce the primacy of local custom, thwarting the army's attempts to impose and disseminate central guidance. This was acute in the years leading up to the First World War. In 1908, the IGF reported that 'there is not yet sufficient uniformity of system, either in adherence to authorised principles, or in the methods by which these principles are put into practice'.<sup>138</sup> The 1913 'Memorandum on Army Training' noted that 'commanders should endeavour to establish a common school of thought among their subordinates... so that all in the formation may be imbued with a common doctrine and be ready for the closest co-operation'.<sup>139</sup> The IGF also reported in 1913 that some progress had been made towards imbuing a common method in some units. Time was all that was needed to achieve more satisfactory results.<sup>140</sup> However, in hindsight, this time was fast running out.

Critics of the army's pre-war officer corps have pointed to its anti-intellectual bent, aversion to book learning, and lack of formal doctrine as evidence of its unthinking and insular nature.<sup>141</sup> This is both unfair and untrue. While the army may have railed against prescribed doctrine and stereotyped thinking, it did not object to individual officers debating and writing their own works on tactical or doctrinal matters. These debates took place outside the army's organisational structure, notably through the medium of lectures, service journals, and commercial publications such as Charles Callwell's *Small Wars* (1896), Ernest Swinton's *The Defence of Duffer's Drift* (1904), and Richard Haking's *Company Training* (1913). The years after the Boer War saw a considerable increase in journal articles, particularly in the *Journal of*

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<sup>137</sup> G. Leonard, 'The Limits of Decision Making: Accounting, Budgets, Tactical Efficiency and the Choices of the British General Staff, 1908-1913'. Paper presented at 13th World Congress for Accounting Historians, Newcastle-upon-Tyne, July 2012, p. 5 [Private copy].

<sup>138</sup> TNA, WO 163/14, Appendix – Annual Report of the Inspector General of the Forces for 1908, p. 159.

<sup>139</sup> RAI, MD 2818, 'Memorandum on Army Training during the Individual Training Period, 1912-13', 11 November 1913, pp. 5-6.

<sup>140</sup> Leonard, 'Limits of Decision Making', pp. 5-6. See also TNA, WO 163/20, Appendix - Annual Report of the Inspector General of the Home Forces for 1913-1914, p. 326.

<sup>141</sup> See Travers, *The Killing Ground*, pp. 38-39.

*the Royal United Services Institute* and *United Service Magazine*. The *Cavalry Journal* was also launched in 1905, providing a forum for intellectual development and discussion within that particular arm. Individuals such as Maxse, Haking, and Fuller regularly contributed to debates in service journals. Indeed, Maxse, Reginald Kentish, and other infantry officers were involved in an intense debate in the *RUSI Journal* on the decision to restructure the battalion into four, rather than eight, companies.<sup>142</sup> These debates were not isolated occurrences. Jay Luvaas deemed these developments ‘signs of a great intellectual awakening’.<sup>143</sup>

The army was aware of the potency of service journals as a seedbed for discussion and dissemination of best practice. This led to the establishment of the short-lived *Army Review* in 1911 under the auspices of Field Marshal William Nicholson (Chief of the Imperial General Staff [CIGS], 1909-1912).<sup>144</sup> As John Gooch argues, the continental armies had benefitted from a number of such journals for some years.<sup>145</sup> For Nicholson, the *Army Review* provided a public vehicle through which the General Staff’s view could be disseminated throughout the army. The aims of the journal centred on the distribution of the latest information on military subjects, inculcating the lessons of history, and encouraging the formulation and expression of individual ideas on matters open to discussion.<sup>146</sup> Undoubtedly aware of the variety of different methods, Nicholson hoped that the *Army Review* would not only encourage ‘the discussion of matters of military interest’, but that it may also prove conducive ‘to the unity of doctrine and the intelligent application of the principles laid down by a superior authority, which are essential to the systematic training in peace and successful action in the field’.<sup>147</sup>

While the service journals and the *Army Review* provided an intellectual and professional outlet for the discussion of military subjects, knowledge derived from experience

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<sup>142</sup> See F. I. Maxse, ‘Battalion Organization’, *JRUSI* 56 (1) (1912), pp. 53-86; R. Kentish, ‘The Case for the Eight Company Battalion’, *JRUSI* 56 (2) (1912), pp. 891-928; H. Wake, ‘The Four Company Battalion in Battle’, *JRUSI* 59 (2) (1914), pp. 362-377.

<sup>143</sup> Luvaas, *Education of an Army*, p. 251.

<sup>144</sup> J. Gooch, ‘The Creation of the British General Staff, 1904-1914’, *JRUSI* 116 (1971), p. 53.

<sup>145</sup> J. Gooch, *The Plans of War: The General Staff and British Military Strategy, c.1900-1916* (London: Routledge, 1974), p. 123.

<sup>146</sup> *Ibid.*

<sup>147</sup> *Ibid.*

still tended to reside within individual soldiers or formations. This resulted in lessons and experience failing to influence the army as a whole and, once again, served to widen the different practices and tactics employed by individual formations.<sup>148</sup> Field Marshal Lord Roberts' well-known publication *Notes for Guidance in South African Warfare* is a case in point. Issued after he replaced General Sir Redvers Buller, the publication was heavily influenced by Roberts' North West Frontier experience. It supported Hamilton's actions at Elandslaagte with its call for the abandonment of close order formations between 1,500 and 1,800 yards from the enemy, keeping an extension of between six and eight paces per man, and making maximum use of cover.<sup>149</sup> These precepts were not new. They had been hinted at within service journals in the aftermath of the Tirah Expedition.<sup>150</sup> However, the British army's limited methods for dissemination, and distaste for prescription, meant that these lessons remained within the regiments that served in these campaigns, or they were consigned to military journals. In the case of the latter, the army had no mechanism for ensuring these articles were read by its personnel, let alone acted upon. Though an observation on official doctrine, Brian Holden Reid's comment on publications is apposite in this instance: 'publishing a doctrinal pamphlet or circulating a paper is no more proof of the acceptance of a doctrinal policy than shouting its conclusions from the roof of the old War Office'.<sup>151</sup>

This section has shown that, on the outbreak of the First World War, the army's ethos was one that encouraged flexibility. This was shaped by its experience of small wars, the post-Boer War reforms, and its geostrategic realities. The army required a universal approach to war; the upshot was a preference for general principles, as outlined in *FSR*, and a rejection of specifics. However, this preference for principles had its weaknesses, particularly as *FSR* did not spell out what those principles were. The experience of one war could hardly be assimilated

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<sup>148</sup> Moreman, *The Army in India*, p. 36.

<sup>149</sup> Jones, *Boer War to World War*, pp. 65-66.

<sup>150</sup> See, for example, A. C. Yate, 'North-West Frontier Warfare', *JRUSI* 42 (248) (1898), p. 1191; W. F. Gatacre, 'A Few Notes on the Characteristic of Hill Fighting in India and the Training of Infantry Necessary for the Same, Possible in England', *JRUSI* 43 (260) (1899), pp. 1065-1086.

<sup>151</sup> B. Holden Reid, *A Doctrinal Perspective 1988-98* (Camberley: SCSi, 1998), p. 14.



for the general military good. It was, therefore, left to units to find out the most suitable approach.<sup>152</sup> With little ability or desire to enforce a central doctrine, the army unwittingly encouraged a proliferation of different tactical methods. Its centre of gravity remained fixed on the regiment and the individual commander. How its ethos influenced or, indeed, survived the First World War will be considered in the final part of this chapter.

Priding itself on its adaptation and devolved decision-making, the army had developed an ethos that was both flexible and highly individualised. The small size of the pre-war army and the relative homogeneity of the officer corps made this approach feasible. However, with the industrialised nature of the First World War, the army was forced to expand and transform from a small professional force to a mass citizen army. The officer corps alone (including territorial and Special Reserve officers) expanded from 28,060 to 164,255 – an increase of nearly 600 per cent.<sup>153</sup> As we shall see, this transformation would have an effect on the army's approach to learning and the survival of its pre-war ethos.

The army initially adhered to an individualised approach, but realised early on in the war that this would not suit a rapidly expanded army primarily made up of citizens in uniform. Although *FSR* offered guidance, it militated against commonality of method. While this approach was acceptable in a small war, or in a small army, the lack of common tactics, techniques, and procedures served to increase the possibility of friction in a large scale conflict. Initiative and individual action were still held up as the norm, yet the army could not expect its citizen soldiers to display the same level of initiative as a battle hardened regular. Their inexperience required the army to adapt and embrace a far more standardised approach to learning.

GHQ-endorsed pamphlets appeared as early as December 1914 offering just one example of this move towards standardisation. As later chapters will show, these pamphlets not

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<sup>152</sup> Ramsey, *Command and Cohesion*, p. 92.

<sup>153</sup> War Office, *Statistics of the Military Effort*, p. 234.

only collated the latest experience for the benefit of regular and citizen soldier alike, but also provided much-needed handrails, particularly for newcomers. Throughout the war, the army still emphasised the importance of initiative, pragmatism, and deference to the ‘man on the spot’. However, it was not blind to initial deficiencies in that quarter. In *SS109 Training of Divisions for Offensive Action*, published in May 1916, commanders were to remember that:

... officers and troops generally do not now possess that military knowledge arising from a long and high state of training which enables them to act promptly on sound lines in unexpected situations. They have become accustomed to deliberate action based on precise and detailed orders.

Officers and men in action will usually do what they have been practised to do or have been told to do in certain situations...<sup>154</sup>

For some commentators after the war such as Major-General Arthur McNamara, the army’s use of pamphlets had fundamentally undermined the ability and willingness of officers to show initiative. He argued that:

... solutions to all problems are rapidly becoming almost standardised, the quality, quantity and action of the enemy often getting scant attention. At conferences lessons are rubbed home by quotations from manuals and pamphlets, and as enemy methods and action are constant, the officer is apt to get an impression that there is a stereotyped right answer, and that he is ignorant, or unfortunate when he gives the wrong one.<sup>155</sup>

McNamara’s comments suggest that this plethora of pamphlets somehow undermined the army’s pre-war ethos. However, this is untrue. The very nature of this ethos allowed the army to recalibrate its approach to learning, moving from a highly individualised approach to one that was far more standardised. That the army was able and willing to recalibrate its approach speaks to the inherent flexibility of the organisation. This, as later chapters will show, also allowed it to absorb a huge increase in numbers and tremendous changes in tactics and technology without having to undergo wholesale reorganisation.

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<sup>154</sup> General Staff, *SS109 Training of Divisions for Offensive Action*, 1916, Clause 9.

<sup>155</sup> LHCMA, Papers of General Sir W. M. StG. Kirke, 4/4, ‘Notes by Major-General Arthur McNamara on Training’, May 1932, pp. 1-2.

Although the army expanded and changed, its ethos survived this turmoil. This was, in part, due its alignment with the values of the society from which it sprung. It was not transient or contingent on the presence of a single individual. During the First World War, its survival can be attributed to three key factors. First, there was continuity of command at the highest levels of the army. Certainly, commanders were replaced or changed and those who held senior commands were not always the best men for the job. However, the point is that regular army officers continued to dominate the high command.<sup>156</sup> These men were members of an officer corps imbued with the army's ethos. In some instances, these regular officers found themselves in positions where they could influence the training of the various forces. For Shea, the need for 'sufficient pre-war personnel capable of imparting instruction' was vital.<sup>157</sup> In this respect, ethos remained the golden thread running through the entire organisation.

Secondly, and related to the first point, *FSR* remained in force throughout the war. Although some commanders did not find its principles applicable, it was often required reading or, at least, a key text for training schools in each expeditionary force.<sup>158</sup> General Sir Edmund Allenby, as CinC of the EEF, declared that it was 'unnecessary to issue instructions from GHQ as to the Training of Divisions for Offensive Action. The principles in *Field Service Regulations Part I*, and in the various pamphlets, are a sufficient guide and should be read in conjunction with one another'.<sup>159</sup> Lieutenant-General Sir Edward Bulfin (GOC XXI Corps) upheld Allenby's belief in the relevance of *FSR*, calling for its principles to be 'carefully studied', and requesting that his divisions 'devote their attention to the application of these principles to the present situation'.<sup>160</sup> The universality of *FSR* also proved to be useful for the XIV Corps when faced with the prospect of mountain warfare on the Italian front. A warning order to the corps' divisions noted that points on this type of warfare were 'fully dealt with in

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<sup>156</sup> Robbins, *British Generalship*, pp. 210-212.

<sup>157</sup> LHCMA, Shea Papers, 6/4, Lecture on Palestine Campaign, n.d.

<sup>158</sup> See, for example, TNA, WO 95/4946, BSF Infantry School, Course Syllabus, 3 February 1918; AWM, AWM 25 881/34, Course in Staff Duties in 1st Australian Division, Memo, 28 June 1917.

<sup>159</sup> TNA, WO 95/4368, EEF GHQ War Diary, Chief of the General Staff's Conference, 20 August 1917.

<sup>160</sup> TNA, WO 95/4635, 54th Division GS War Diary, BGGs XXI Corps to GOC 54th Division, 27 December 1917.

*Field Service Regulations Part I*, but were also to be ‘amplified’ in a pamphlet.<sup>161</sup> As later chapters will show, *FSR* was also used to integrate newcomer organisations, such as the AIF, into the army, forming the basic building block of their training schools.

Thirdly, the army developed a series of socialisation methods ranging from regimental affiliations to the attachments of newcomers to long serving formations. Regarding Lord Kitchener’s new armies, Palazzo argues that the decision to append the battalions to existing regiments helped instil a sense of tradition and familial association. This not only linked these new battalions to the victories of the past, creating loyalties, but also helped to ensure a continuity of ethos between the regular and the Kitchener army.<sup>162</sup> For one anonymous individual in the *RUSI Journal*, the “‘halo of the traditions of the old regiment” has been a very great factor in the making of the new units... there is much journalistic gush about the “spirit of the New Army””; as if that spirit were something new, and not the legacy handed down by the old Regulars’.<sup>163</sup> The Kitchener army was very much ‘modelled on the old; trained on its system, and imbued with its traditions’.<sup>164</sup> As later chapters will show, the army also used socialisation methods, including training schools, tactical exercises, and attachments, to instil within newcomers the values of the army. Attachments proved a particularly useful way of integrating newcomers, introducing them to the front line, but also setting an example in terms of discipline, *esprit de corps*, and soldierly tradition.

When revisiting Robertson’s July 1916 letter to Rawlinson, it is clear that the importance of common sense and initiative was not solely a wartime phenomenon. Rather, both qualities were fundamental aspects of the army’s pre-war ethos. This ethos, shaped by perceptions of what it meant to be British, the country’s geostrategic situation, military initiatives, and the social background of the Edwardian officer corps, provided a framework within which the army could

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<sup>161</sup> TNA, WO 95/4212, XIV Corps GS War Diary, Corps Warning Order, 12 March 1918.

<sup>162</sup> Palazzo, *Seeking Victory*, pp. 16-17.

<sup>163</sup> C. N. W. (pseud.), ‘The Making of the New Unit’, *JRUSI* 61 (1916), p. 606.

<sup>164</sup> *Ibid.*, p. 607.

interpret, develop, and modify its method of waging war. Although there are examples in history where military ethos has ossified, this did not occur within the British army. Grounded in the cultural values of its parent society, its ethos was well developed to operate and thrive in the uncertain environment posed by the First World War.

That is not to say that such an ethos did not cause problems for the army. Its emphasis on pragmatism, and a preference for principles over prescription, posed problems for citizen soldiers who had little to no experience of battle. As a result, the army had to recalibrate its learning method, pursuing a far more systematic approach to knowledge creation and dissemination. The pamphlets produced as part of this change in method, though considered mere amplifications of pre-war manuals, were far more prescriptive in nature. That the army was able to carry out this recalibration, whilst still stressing the importance of initiative and deference to the man on the spot, speaks to the inherent flexibility of the organisation.

This flexibility was also demonstrated by the army's ability to absorb a huge increase in numbers without having to undergo wholesale reorganisation. Over the course of the war, the army's social composition changed almost beyond recognition. However, in spite of this, its ethos remained relevant and, ultimately, survived the organisational challenges of the First World War. It endured because it was representative of the values of civil society; it was propagated by individuals in positions of power; and, more importantly, there was a genuine desire to see this ethos maintained and passed on to newcomers. Whether through the continuing use of *FSR* or by appending Kitchener units to existing regiments, the army sought to imbue newcomers with its characteristic spirit, ensuring they were able to adapt to the changing nature of war.

## CHAPTER 2

### LEARNING FROM THE PRESENT

Although the pre-war army had a number of formal mechanisms through which to share information, including the Staff College and military journals, the advent of the First World War required the development of additional formal methods. These particular methods allowed for the dissemination of explicit knowledge across the army's various expeditionary forces. Publications, for example, were one of these formal methods. They contained information that had been extracted from an individual or unit, made independent, and reused for various purposes. This particular approach gave individuals access to organised knowledge without having to go direct to the originator.<sup>1</sup> This approach also ensured that the army's forces were aware of the latest developments taking place around the globe and not just on the Western Front. As this chapter suggests, the scale and intensity of the First World War compelled the army to adopt a far more bureaucratic approach in its dissemination of knowledge.

However, the army was far from ignorant of the importance of people-centred methods. These particular methods promoted knowledge sharing between individuals through mentoring, secondments, or command appointments. The army utilised all these approaches, partly in response to its existing ethos, but also because of its increasingly civilian composition. Also, owing to the proximity of the enemy and the inability to disengage fully from the battlefield, heuristic or 'on the job' learning was just as necessary as more explicit methods. For organisational learning to take place, there needed to be an effective relationship between the two approaches.

This chapter addresses two questions: first, what learning methods did the army develop in order to share knowledge, particularly between its operational theatres, and secondly, how effective were these methods? To answer these questions, the chapter will first identify and detail the army's formal methods in turn, namely publications, training schools, and lectures.

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<sup>1</sup> M. T. Hansen, N. Nohria and T. Tierney, 'What's Your Strategy for Managing Knowledge?' *Harvard Business Review* (March-April 1999), p. 2.

Secondly, it considers the army's people-centred methods, including secondments and attachments, and inter-theatre command appointments. Thirdly, it considers the role of personal interaction between individuals through written correspondence and gentlemen's clubs. Finally, it will assess the effectiveness of these methods and reflect on their importance to the army's learning process.

One of the most prominent and well-documented formal methods of sharing knowledge was through the medium of military publications. The formulation and dissemination of the SS pamphlets has been a subject of interest for scholars such as Griffith and Beach.<sup>2</sup> Ultimately, SS pamphlets provided a way of codifying and distributing best practice without needing to revamp *FSR*. They were an explicit form of knowledge in that they were portable and could be readily transmitted to different parts of the army. For the high command, these publications were 'merely amplifications' of the army's pre-war manuals, produced to 'meet the varying requirements' of the war.<sup>3</sup> These 'amplifications' covered a myriad of topics, ranging from the training and employment of bombers, to lessons drawn from specific operations. The use and subsequent adaptation of the SS series went beyond the Western Front and was widespread throughout the army's operational theatres.

Although there was provision for a printing depot in the field as part of the BEF's mobilisation plans, the initial production of military publications was the responsibility of the War Office's Central Distribution Section [CDS]. Once printed, these CDS publications were despatched to France for distribution via the Army Printing and Stationery Service [APSS], located in the field. Although the APSS began printing its own material at the beginning of 1915, it was not until early 1916 that this material gained the SS prefix. To cope with the demands of a growing army, the APSS in France expanded to accommodate the influx of requests for general stationery and publications. In addition to internal requests, the APSS also

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<sup>2</sup> Beach, 'General Staff', pp. 464-491; Griffith, *Battle Tactics*, pp. 179-191.

<sup>3</sup> AWM, AWM25 947/76, Infantry Training France 1917, O.B./165, 8 May 1917.

received direct requests from the GHQs of the subsidiary theatres who desired the latest Western Front publications.<sup>4</sup>

Initially, these ad hoc requests were met by the APSS or, in some cases, the War Office. However, the practice soon became unworkable. Following a request for recent SS pamphlets by the Mesopotamia and Salonika theatres in February 1917, GHQ BEF instructed the APSS to issue three copies of all publications forthwith to 'G[eneral].O[fficers].C[ommanding] Egypt, Salonica, Mesopotamia [and] C[ommander].in.C[hief] India'.<sup>5</sup> Further copies of these pamphlets were to be produced locally or requested from the War Office directly. The Royal Engineers [RE] initiated a similar practice from 1916 onwards for the distribution of its own notes and publications. Five hundred copies of each publication were sent to the War Office for issue to home units and the various expeditionary forces.<sup>6</sup> The army's decision to standardise the distribution of SS pamphlets marked the transition from 'pulled' transfer – where theatres requested pamphlets which would be of use to them – to 'pushed' transfer – where all publications were sent out to the various theatres, irrespective of need or relevance. This decision ran counter to the army's pre-war ethos. The pushed transfer of publications aimed to reach as many individuals as possible. However, this decision did not represent a complete departure from its ethos. It still remained up to each expeditionary force to judge whether or not to circulate the material. This suggests that there was flexibility within the military organisation, allowing for independent learning in the subsidiary theatres.

As the subsidiary theatres grew in size, individual base supply depots were established; one of their functions was fulfilling a force's printing needs. This not only allowed the theatres to meet their own general stationery demands, but it also allowed them to publish their own pamphlets, based on their experience in theatre. Examples of this include the Italian

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<sup>4</sup> TNA, WO 95/4189, DAPSS War Diary, 24 May 1916. See also TNA, WO 95/4362, EEF GHQ War Diary, Lynden-Bell to Corps, 26 April 1916.

<sup>5</sup> TNA, WO 95/4189, DAPSS War Diary, 14 February 1917. Instructions for the formal dissemination of SS pamphlets to the Italian Expeditionary Force were agreed on 13 January 1918.

<sup>6</sup> G. H. Addison, *The Work of the Royal Engineers in the European War, 1914-19: The Organization of Engineer Intelligence and Information* (Uckfield: Naval and Military Press, 2006 [1926]), p. 81.



Expeditionary Force's [IEF] *SS652 I.E.F. Traffic Orders*, and a publication on 'Hill Training', as well as the EEF's *Notes on the Employment of Lewis Guns in the Desert*.<sup>7</sup> In some cases, these publications were sent to the War Office for the consumption of other expeditionary forces. In January 1918, for example, the EEF sent its pamphlet *Notes on the Employment of Hotchkiss Automatic Rifles during Recent Operations* to the War Office, the Cavalry Training Centre at Uckfield, and the Machine Gun Training Centre at Grantham. In return, the EEF asked for 'any information you have regarding Hotchkiss Guns in connection with the recent fighting in France'.<sup>8</sup> A report on the EEF's experiments with tanks also found its way to the War Office in February 1918 as it was felt that this 'might be of interest to the Headquarters, Tank Corps' on the Western Front; while in September of the same year, 120 copies of *Action of 6th Mounted Brigade at El Mughar* were forwarded to the Director of Staff Duties for 'instructional purposes', with a further five copies despatched to India and Mesopotamia.<sup>9</sup>

Despite the production and wider dissemination of these theatre-specific publications, the appetite for Western Front pamphlets remained considerable. Naturally, one of the dangers of drawing on the lessons of the Western Front was their relevance to the different theatres. As Serena has argued, certain knowledge resists translation into circumstances foreign to its genesis. Knowledge can often be 'localized, temporal, or only pertains to specific unit types'.<sup>10</sup> It may also be subject to 'Not Invented Here' syndrome. This syndrome is endemic to bureaucratic institutions like the military. The expression refers to a negative attitude to knowledge that originates from a source outside the immediate institution or informal group.<sup>11</sup>

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<sup>7</sup> TNA, WO 95/4203, Director of Supplies and Transport War Diary, 21 March 1918; TNA, WO 95/4366, EEF GHQ War Diary, Lynden-Bell to War Office, 9 November 1916.

<sup>8</sup> TNA, WO 95/4369, EEF GHQ War Diary, GHQ to War Office, Uckfield, and Grantham, 14 January 1918.

<sup>9</sup> *Ibid.*, GHQ to War Office, 19 February 1918; TNA, WO 95/4371, EEF GHQ War Diary, GHQ to War Office, 16 September 1918.

<sup>10</sup> Serena, *A Revolution in Military Adaptation*, p. 113.

<sup>11</sup> 'Not Invented Here' syndrome has been covered by a number of scholars. See R. Katz and T. J. Allen, 'Investigating the Not Invented Here (NIH) Syndrome: A Look at the Performance, Tenure and Communication Patterns of 50 R & D Project Groups', *R&D Management* 12 (1) (1982), pp. 7-20; U. Lichtenthaler and H. Ernst, 'Attitudes to Externally Organizing Knowledge Management Tasks: A Review, Reconsideration and Extension of the NIH syndrome', *R&D Management* 36 (4) (2006), pp. 367-386.

Existing members of the organisation are reluctant to accept new practices that challenge the status quo. Writing after the war, Major-General Guy Dawnay, a senior staff officer both in Palestine and on the Western Front, noted the ‘well marked tendency to apply the lessons of experience indiscriminately’; while McNamara criticised commanders at Gallipoli for trying to ‘apply the methods applicable to the war in France, to which they had little relation’.<sup>12</sup> During the Gallipoli campaign, General Sir Ian Hamilton (CinC, MEF) was overtly derogatory about the influx of Western Front methods. In a letter to Kitchener, Hamilton wrote that senior officers have been ‘saturated with pamphlets and instructions about trench warfare, and their one idea is to sit down and dig an enormous hole to hide themselves in’.<sup>13</sup> Although the army favoured principles over prescription, this attitude echoed the pre-war reluctance to apply the tactics and lessons from one campaign to another.<sup>14</sup>

A number of pamphlets were broad enough to cover most operational requirements, such as *SSI35 The Training and Employment of Divisions* and *SSI43 The Training of Platoons for Offensive Action*, providing the foundation for infantry training in the subsidiary theatres. The BSF’s infantry school listed both *SSI35* and *SSI43* as required reading for officers undertaking the course.<sup>15</sup> Corps and divisional commanders’ conferences in the IEF drew attention to the same pamphlets for the purposes of patrolling and hill warfare in April 1918.<sup>16</sup> However, the majority of pamphlets were concerned with battle conditions on the Western Front. This required commanders and staffs of the various expeditionary forces to modify these pamphlets for use in theatre. The EEF’s distribution of *SSI39/3 Artillery Notes No. 3* and

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<sup>12</sup> IWM, Papers of Major-General G. P. Dawnay, 69/21/1, Draft Lecture on Dardanelles and Palestine, n.d., p. 19; LHCMA, Kirke Papers, 4/4, Notes by Major General A. E. McNamara on training in peacetime and in war, May 1932.

<sup>13</sup> LHCMA, Papers of General Sir I. S. M. Hamilton, 7/1/6, Hamilton to Kitchener, 11 August 1915.

<sup>14</sup> Moreman, *The Army in India*, pp. 38-41; French, *Military Identities*, p. 65.

<sup>15</sup> TNA, WO 95/4946, BSF Infantry Training School War Diary, ‘Instruction for “first hour”’, 3 February 1918.

<sup>16</sup> TNA, WO 95/4229, 23rd Division GS War Diary, ‘Corps Commander’s Conference with Divisional Commanders, 24 March 1918’ and ‘Proceedings of a Conference held at Divisional Headquarters, 26 April 1918’.

*SS139/4 Artillery Notes No. 4* in May 1917 offers a good example.<sup>17</sup> Two pages of notes by Major-General Sydenham Smith (Major-General, Royal Artillery [MGRA], EEF) accompanied the pamphlets, offering guidance on their use in Palestine. In his consideration of *SS139/4*, for example, Smith noted that ‘the whole tenour of this book applies to conditions of trench warfare such as appertain in France... we must therefore be careful to adapt the principles to the nature of such defences as confront us from time to time’.<sup>18</sup>

This process of adaptation was not confined to the higher levels of command. With tactical publications such as *SS143*, divisions had latitude to interpret and adapt them to their local situation.<sup>19</sup> During a period of ‘arduous training’ in August 1917, battalions of the 74th Division were reorganised ‘based on the development of the modern infantryman’s weapons within the platoon’ as found in *SS143*.<sup>20</sup> This publication represented a ‘vital milestone in tactics’, separating ‘the Victorian era of riflemen in lines from the twentieth century era of flexible small groups built around a variety of high firepower weapons’.<sup>21</sup> The platoon, as advocated in *SS143*, was made up of rifle, grenade, rifle grenade, and Lewis gun sections. On the Western Front, GHQ determined that this particular structure should be adopted throughout all Armies in France. However, in the case of the 74th Division, this structure was deemed incompatible with conditions in Palestine. Whereas other Palestine commanders, such as Shea, declared the system to be ‘absolutely correct’, the 74th Division adapted the platoon structure to meet its own needs and experience.<sup>22</sup> In line with *SS143*, the 74th Division reorganised its platoons into four sections, yet rather than a section of rifle grenadiers, a sniper section was

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<sup>17</sup> TNA, WO 95/4367, EEF GHQ War Diary, ‘Notes by MGRA on the two pamphlets SS 139/3 and SS139/4’, 4 May 1917.

<sup>18</sup> *Ibid.*

<sup>19</sup> This was in contrast to the Western Front where GHQ BEF was determined that *SS143*’s platoon structure should be ‘adopted throughout all Armies in France’. See GHQ, *SS144 The Normal Formation for the Attack*, 1917.

<sup>20</sup> GHQ, *SS143 Instructions for the Training of Platoons for Offensive Action*, 1917.

<sup>21</sup> Ramsey, *Command and Cohesion*, p. 33.

<sup>22</sup> TNA, WO 95/4660, 60th Division GS War Diary, Memorandum on Lessons Learned, 13 November 1917.

included instead.<sup>23</sup> The reason for this substitution is undocumented. However, in desert conditions, the enemy was rarely within assaulting distance, thus rendering the rifle grenade - a trench warfare munition – superfluous. Instead, a section of snipers offered a useful way of engaging the enemy at long range. The decision to reorganise based on Western Front principles suggests that expeditionary forces were not isolated from the wider developments taking place in other theatres.

Although adaptation was encouraged, a clear attempt to promote uniformity endured across the army's expeditionary forces. The BSF, for example, ordered its formations to reorganise based on *SSI43* so as to 'assimilate the organisation of battalions in this Force with that of battalions in the British armies in France and to ensure the necessary degree of uniformity of training in battalions'.<sup>24</sup> This served to highlight the tension between ensuring a systematic approach, while simultaneously encouraging devolved decision-making. Expeditionary forces were not compelled to adopt Western Front practice, but it was ill-advised to prepare for just one type of warfare. This represented a continuation of the army's pre-war ethos. The possibility of transferring to another theatre of operations at relatively short notice meant that formations often had to prepare for two types of warfare: offensive operations in their current theatre, and warfare as conducted on the Western Front.<sup>25</sup> The move towards a systematic approach to doctrine dissemination meant that formations were better able to negotiate changes in circumstance.

Military publications also provided the basis for the army's second formal method for disseminating knowledge: training schools and classes of instruction. The simple dissemination of a publication was not always enough. Recalling preparations for the Second Battle of Gaza, one soldier in the 5th Battalion Highland Light Infantry recalled that 'pamphlets on the attack,

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<sup>23</sup> C. H. Dudley Ward, *The 74th (Yeomanry) Division in Syria and France* (London: John Murray, 1922), p. 67.

<sup>24</sup> TNA, WO 95/4757, BSF GHQ War Diary, Memo, Gillman to GOCs XII and XVI Corps, 5 June 1917.

<sup>25</sup> Whilst serving on the Western Front, the 27th Division, for example, had little more than two weeks between notification and embarkation for Salonika. It received information on 31 October 1915 that it was to entrain for Salonika and began its subsequent embarkation on 17 November 1915. See TNA, WO 95/2255/2, 27th Division A&Q War Diary, 31 October 1915.

written for trench warfare in France, were liberally issued. One's brain became terribly confused'.<sup>26</sup> Although the 'pushed' distribution method was working, this soldier's account suggested that pamphlets were not always read or understood. No soldier was ever expected to read every training pamphlet issued, nor did the army have the means to enforce this. The pamphlets read would have depended on that soldier's rank or role. However, in some cases, these pamphlets still required interpretation and to be put into practice. Training, both in schools and in units, offered that method of interpretation. The BEF's approach to training was not formalised until the inauguration of the Training Directorate, under Major-General Arthur Solly-Flood, in France in January 1917. The Directorate was established for 'the co-ordination of all training, whether carried out at G.H.Q., the Armies, the corps, or the divisions'.<sup>27</sup> Although the establishment of the Training Directorate was a visible act, this was not GHQ's first 'hands on' attempt at improving the training of the British army in France. In 1915, Robertson, then Sir John French's Chief of Staff, had given responsibility for training to his deputy before Lieutenant-General Sir Richard Butler subsequently assumed this duty in December 1915.<sup>28</sup>

Prior to the creation of the Training Directorate, the establishment of training schools was left to the initiative of individual commanders. By the winter of 1916-1917, there were a number of schools at Army, corps and divisional levels, but, in a manner reminiscent of the pre-war army, little uniformity existed as to how these schools were run or the methods taught. Owing to GHQ's limited involvement at this point, individual commanders and their staff took it upon themselves to determine the course content and how it was to be delivered.<sup>29</sup> The Training Directorate offered a way of enforcing uniformity of doctrine, as well as standardising

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<sup>26</sup> F. L. Morrison, *The Fifth Battalion, Highland Light Infantry in the War, 1914-18* (Glasgow: MacLehose, Jackson & Co., 1921), p. 147.

<sup>27</sup> W. Miles, *Official History of the War: Military Operations, France and Belgium, 1916*, II (2 vols., London: Macmillan 1938), p. 571.

<sup>28</sup> A. Geddes, 'Major-General Arthur Solly-Flood, GHQ and Tactical Training in the BEF, 1916-1918', MA dissertation, University of Birmingham, 2007, pp. 11-12.

<sup>29</sup> IWM, Papers of Captain T. C. Owtram, 83/17/1, Ts memoir, n.d, p. 14. Owtram's memoirs detail a course for 'instruction in staff duties' run by 1st Division in mid-1915.

the teaching of that doctrine. Bonham-Carter, successor to Solly-Flood, recalled his position as being ‘in charge of the Schools of Instruction directly under GHQ’, visiting divisions, and ‘learning their experiences in order to keep everyone up to date with any tactical development that takes place by sending round pamphlets’.<sup>30</sup> The task had similarities with that of the pre-war IGF in that it involved ‘ensuring that similar principles and methods of training’ were adopted throughout the army.<sup>31</sup>

The publication of *SS152 Instructions for the Training of the British Armies in France* encapsulated this drive for uniformity. Published as a provisional document in June 1917, *SS152* set out the army’s ‘general policy of training’, and the system it would use to ensure ‘uniformity of doctrine’.<sup>32</sup> The policy of training in France was based upon two beliefs: first, that, much like the pre-war army, the responsibility for the training and efficiency of all officers and men in a unit belonged to the commanding officer; and secondly, that special instructors were to be trained at schools to assist them in that task.<sup>33</sup> Its publication led to a complete overhaul and standardisation of the schools system within the BEF. The reduction of the number of schools limited the opportunity for different training creeds.<sup>34</sup> This made the system more manageable. Corps schools were placed on an even footing, providing training for platoon commanders and non-commissioned officers [NCO], while divisional schools were abolished. Training at the tactical level continued, but in the form of ‘classes of instruction’. To complement the standardised school system, *SS152* was highly prescriptive regarding the syllabus for each school, including the number of students in each cohort and the types of publications to be used.<sup>35</sup> Instructors were also expected to keep up to date with the latest

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<sup>30</sup> CAC, Bonham-Carter Papers, BHCT 2/2, Bonham-Carter to sister, 8 October 1917.

<sup>31</sup> CAC, Bonham-Carter Papers, BHCT 9/2, Ts copy of autobiography, Chapter 9, n.d.

<sup>32</sup> A slightly revised version of *SS152* was published in January 1918.

<sup>33</sup> Geddes, ‘Solly-Flood’, pp. 19-20.

<sup>34</sup> *Ibid.*, p. 20.

<sup>35</sup> *Ibid.*, p. 21.

developments through refresher courses and visits to the front line.<sup>36</sup> However, as Jonathan Boff has argued, *SS152* attempted to perform two conflicting roles simultaneously: to help disseminate common doctrine, and to preserve the independent responsibility of divisions and their units for training their men.<sup>37</sup> In essence, it was promoting both obedience and initiative. Though *SS152* constituted a coherent attempt to standardise training, it was not followed religiously. There was diversity in approach, highlighting the army's inherent unwillingness to adhere to prescription.

Though devised for use in the BEF, *SS152*'s dissemination to the other expeditionary forces meant that it also provided the basis for their schools. Its use was notable in the BSF with the establishment of GHQ schools for infantry, artillery, signal, gas, and Lewis and Vickers Guns.<sup>38</sup> Surviving records for the BSF's Lewis and Vickers Gun school outline the development of a new programme of training, prepared 'on the lines laid down in... "*Instructions for the Training of the British Armies in France*" with reference to the latest literature from France and Grantham'.<sup>39</sup> However, the training syllabus had to be made relevant to local conditions. The BSF Lewis and Vickers Gun school decided to eliminate certain aspects from *SS152*'s prescribed syllabus, notably revolver training and 'warfare of highly organised defences'.<sup>40</sup> This flexible approach was also evident in the BSF's infantry school. The core pamphlets mirrored those used in France, including *SS135*, *SS143*, and *SS185 Assault Training*, yet responsibility was placed on the commandant and his instructors to ensure that the course was relevant to conditions in Salonika. This, once again, served to highlight *SS152*'s conflict of purpose. It also suggested that the centre (the Western Front) was positively delegating responsibility to the

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<sup>36</sup> GHQ, *SS152 Instructions for the Training of the British Armies in France*, 1917, pp. 14-15. This practice was also initiated in non-Western Front theatres, notably Palestine. See TNA, WO 95/4367, EEF GHQ War Diary, Lynden-Bell to GOC Eastern Force, 17 May 1917.

<sup>37</sup> Boff, *Winning and Losing*, p. 59.

<sup>38</sup> C. Falls, *Official History of the Great War: Military Operations, Macedonia*, II (2 vols., London: HMSO, 1933), p. 57.

<sup>39</sup> TNA, WO 95/4946, BSF Lewis and Vickers Gun School War Diary, 24 June 1918.

<sup>40</sup> *Ibid.*

periphery. This policy of adaptation and decentralisation is also evident within the EEF. In a letter to the force's corps commanders, Dawnay wrote that:

The various pamphlets, published on training, cannot be accepted as containing the final word so far as the preparations for operations in this country are concerned. It is considered that the experience gained on the subject, which may have called for modifications and variations in the pamphlets referred to, are worth... collating and placing on record for future guidance.<sup>41</sup>

Although syllabi were adapted to suit local training needs, training in Western Front warfare was not neglected. Prior to his departure as CinC EEF in June 1917, General Sir Archibald Murray established a specialist branch of the Imperial School of Instruction at El Arish. Unlike the main Zeitoun school, the El Arish branch was established for the sole purpose of instruction in trench warfare. The syllabus included the 'combined training and tactical handling of Stokes Guns, Lewis Guns and bombers'.<sup>42</sup> Though starting with the best of intentions, the El Arish school came under fire from senior officers in the EEF, notably Dawnay. In a report to Lynden-Bell, Dawnay wrote that 'the organisation and training of a platoon, as laid down in "*Instructions for the Training of Platoons for Offensive Action, 1917*" [SS143] does not appear to be taught'.<sup>43</sup> Although candidates at El Arish received practical instruction in 'revetting trenches, siting tactical wire and fire trenches', there was no practical instruction in 'attacks from a trench against other trenches by strong points, cooperation between infantry and M[achine] G[un]s and Art[iller]y, [or] siting of Lewis and Machine Guns in Trenches'.<sup>44</sup> The EEF also established a sniper school to be 'conducted on the lines of an Army Sniper School in France'.<sup>45</sup> This was, in large part, due to the success of the BEF's First Army sniping school under Major Hesketh Hesketh-Prichard.<sup>46</sup>

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<sup>41</sup> TNA, WO 95/4368, EEF GHQ War Diary, Memo to GOCs XX, XXI and DMC, 16 October 1917.

<sup>42</sup> TNA, WO 95/4367, EEF GHQ War Diary, 12 June 1917.

<sup>43</sup> TNA, WO 95/4368, EEF GHQ War Diary, Dawnay to CGS, 31 August 1917.

<sup>44</sup> *Ibid.*, 15 August 1917.

<sup>45</sup> TNA, WO 95/4367, EEF GHQ War Diary, Lynden-Bell to GOC Eastern Force, 5 July 1917.

<sup>46</sup> H. V. Hesketh-Prichard, *Sniping in France 1914-18* (Solihull: Helion, 2000).



To ensure that training remained up to date, the schools sought instructors with relevant experience and the ability to ensure that both military publications and the wider training syllabi were understandable to the student. Schools in the subsidiary theatres wanted instructors with ‘recent experience in France’, as well as those familiar with the latest literature from schools in Britain.<sup>47</sup> In Salonika, a regular regimental sergeant-major was brought over from France to act as ‘Sergeant of Training’ at the force’s infantry school, while two assistant instructors and three sergeant instructors were sent from Grantham to run the Lewis and Vickers Gun school.<sup>48</sup> The EEF was just as keen as its Salonika counterpart, requesting ‘two regular officers with recent experience in France’ to run the senior officers’ course at Heliopolis.<sup>49</sup> Brigadier-General Geoffrey Salmond (GOC Middle East Brigade, Royal Flying Corps [RFC]) called for the attachment of a GSO1 to help him ‘keep in touch with progress at home and in France’, but also to help ‘coordinate methods of training out here with those at home’. For Salmond, the current lack of expertise meant that it was ‘not possible to keep abreast of improvements in France... and this affects operations’.<sup>50</sup> The need for these experienced staff officers was clear with the EEF’s appointment of three regular officers, with experience of staff duties and instruction, to run its staff school at Mena House.<sup>51</sup> Of these three officers, two of them had been instructors at the junior staff school at Clare College, Cambridge, prior to their appointment to Mena House. The EEF staff school, established in January 1917, was run on similar lines to the staff schools at Cambridge and in France with an intake of thirty students; fifteen of these students were nominated by the BSF.<sup>52</sup> As part of their participation on the course, the BSF candidates were taken ‘to see something of the work on the eastern front’.<sup>53</sup> This gave them an appreciation of

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<sup>47</sup> TNA, WO 95/4367, EEF GHQ War Diary, 8 May 1917.

<sup>48</sup> TNA, WO 95/4946, BSF Infantry School War Diary, 10 January 1918; TNA, WO 95/4946, BSF Lewis and Vickers Gun School War Diary, 26 June 1918.

<sup>49</sup> TNA, WO 95/4367, EEF GHQ War Diary, 8 May 1917.

<sup>50</sup> *Ibid.*, Salmond to War Office, 8 March 1917.

<sup>51</sup> IWM, Lynden-Bell Papers, 90/1/1, Lynden-Bell to Maurice, 10 January 1917.

<sup>52</sup> TNA, WO 161/42, Letters of Brigadier-General E. M. Paul to Director of Fortifications and Works (War Office), Letter 19, 10 April 1917.

<sup>53</sup> IWM, Lynden-Bell Papers, 90/1/1, Lynden-Bell to Maurice, 10 January 1917.

the situation facing the EEF and a thorough grounding in the administrative requirements of fighting in desert conditions.

The use of Western Front publications and instructors ensured that training schools and courses of instruction served as key fora for the practical dissemination of Western Front knowledge. This knowledge spread throughout the expeditionary forces by the army's use of cascade training, or 'teach the teacher' systems.<sup>54</sup> Cascade training focuses on the training of a small group who then pass on what they know to others further down the organisation hierarchy. It allows for the dissemination of information through the ranks in a relatively short period of time.<sup>55</sup> Officers and men who attended formal schools were expected to cascade the information to their respective units either as an instructor or through less formal means such as lecturing. Major-General John Monash, for example, wrote that, to keep up the supply of trained instructors in the 3rd Australian Division, 'selected officers and NCOs do courses of from one to three weeks... and are then returned to their units to continue the training of the junior personnel'.<sup>56</sup>

The use of lectures provided the third avenue for the formal sharing of knowledge. Like training schools, they provided a good way of sharing knowledge as well as distilling the information found within military publications. Brigadier-General Herbert Gordon (GOC 70th Brigade), for example, decided to deliver a lecture to his men on his 'recent course with the French at Verona'.<sup>57</sup> Gordon's approach was recommended by *SS152*, which advised that 'lectures should be given on matters of interest by Officers recently returned from Schools, by Staff Officers and outside Lecturers when procurable'.<sup>58</sup> This suggests a greater emphasis on the

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<sup>54</sup> This was practiced extensively in the German army. See Foley, 'Dumb Donkeys', p. 290.

<sup>55</sup> J. Cheese, 'Cascading the Training', *Innovations in Education & Training International*, 23 (1986), pp. 248-252; R. L. Jacobs and D. Russ-Eft, 'Cascade Training and Institutionalizing Organizational Change', *Advances in Developing Human Resources*, 3 (2001), pp. 496-503.

<sup>56</sup> AWM, Monash Papers, 3DRL/2316 1/1, Monash to wife, 11 January 1917.

<sup>57</sup> TNA, WO 95/4239, 70th Brigade War Diary, 4 March 1918.

<sup>58</sup> GHQ, *SS152*, pp. 8-9.

individual as a way of sharing knowledge. Where possible, instructors from training schools would visit formations to deliver lectures on the latest methods.<sup>59</sup>

The army also recognised that ‘subordinate commanders have not always the time or the inclination to study official books’. This attitude could be remedied by ‘lectures given by officers of all ranks’.<sup>60</sup> These lectures made the explicit information found within publications accessible to a larger group. Colonel Roderick Macleod, an artillery officer in the 48th Division, practised this approach, making ‘all the officers in this battery give lectures in the evenings. Each Officer has one subject, and he lectures on it once a week’.<sup>61</sup> This was important to the battery, as ‘officers are quite keen on listening to what one of their number is saying’.<sup>62</sup> In the EEF, Captain Noel Drury, an officer in the 6th Battalion Royal Dublin Fusiliers, recounted a ‘very informal lecture by Gen F[rederick] A[ugustus] Greer, all of us sitting round in shirt sleeves, and smoking’.<sup>63</sup> The informality often found in these lectures was a welcome departure from the prescriptive syllabi of the training schools. As Macleod recalled, although he enjoyed the senior officers’ course at GHQ IEF, he found that some of the syllabus was ‘quite old’ and covered principles he had already learned during initial training at Woolwich.<sup>64</sup>

Through the use of lectures and experienced instructors, the individual could play an important role in the sharing of knowledge. As this section will show, people-centred methods formed a central part of the army’s learning process.<sup>65</sup> This aligned with the army’s ethos, its amateur tradition, and the continuing importance of personalities. However, this approach to learning

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<sup>59</sup> As well as lecturing to formations, instructors were often attached to front line units for short periods to ensure that their instruction was kept up to date. See G. H. Addison, *The Work of the Royal Engineers in the European War, 1914-19: Schools* (reprint, Uckfield: Naval and Military Press, 2006), p. 359; TNA, WO 95/4756, BSF GHQ War Diary, MGGS BSF to IGC BSF, 20 December 1916; TNA, WO 95/4367, EEF GHQ War Diary, Lynden-Bell to GOC Eastern Force, 17 May 1917.

<sup>60</sup> TNA, WO 95/4229, 23rd Division GS War Diary, Proceedings of a Conference held at Divisional Headquarters, 26 April 1918.

<sup>61</sup> NAM, Papers of Colonel R. Macleod, 8112-9, ‘An Artillery Officer in the First World War’, n.d., p. 192.

<sup>62</sup> *Ibid.*

<sup>63</sup> NAM, Papers of Captain N. Drury, 7607-69, Memoirs – Vol. 3 Palestine, n.d., p. 48.

<sup>64</sup> NAM, Macleod Papers, 8112-9, ‘An Artillery Officer in the First World War’, n.d., p. 213.

<sup>65</sup> Foley, ‘Dumb Donkeys’, pp. 291-296.

was not limited to the British army. Research into corporate workplace learning has revealed that nearly two-thirds of work-related information comes from face-to-face meetings, mentoring, and apprenticeships.<sup>66</sup> The army recognised the importance of these ‘on the job’ methods through its promotion of secondment and attachment schemes, and inter-theatre command appointments.

Secondments generally serve one of two purposes: they either focus on the personal development of the individual, or they fulfil a strategic function, enabling a team or organisation to gain new knowledge or skills. For the British army of the First World War, secondments and attachments not only played a key role in the acquisition and dissemination of knowledge between theatres, but also between allies. By seconding individuals to different theatres and different forces, the army enhanced its own potential for learning.

The army’s policy for secondments and exchanges was multi-faceted. In order to influence or share current knowledge with allies, for example, the War Office established formal military missions, such as the Baker mission to the USA and Brigadier-General Charles Delmé-Radcliffe’s mission to Italy.<sup>67</sup> To understand the situation facing the army’s expeditionary forces, the War Office deployed a number of liaison officers for attachment at the various GHQs. Liaison between the War Office and Salonika was established as early as 1916.<sup>68</sup> Lieutenant-Colonel Kenneth Barge, a liaison officer to the BSF, was instructed to ‘keep the War Office acquainted with the situation on the Macedonian front, particularly the British sector, and with the needs of the British Forces at Salonika’.<sup>69</sup> Barge was expected to gather information relating to ‘details of defence, method of holding the line, and system of reliefs’, along with

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<sup>66</sup> E. A. Smith, ‘The Role of Tacit and Explicit Knowledge in the Workplace’, *Journal of Knowledge Management* 5 (2001), p. 315; W. Swap, D. Leonard *et al.*, ‘Using Mentoring and Storytelling to Transfer Knowledge in the Workplace’, *Journal of Management Information Systems* 18 (2001), pp. 95-114.

<sup>67</sup> For a fuller consideration of military missions, see E. Greenhalgh, ‘The Viviani-Joffre Mission to the United States, April-May 1917: A Reassessment’, *French Historical Studies* 35 (4) (2012), pp. 627-659; E. Greenhalgh, *Victory Through Coalition: Britain and France during the First World War* (Cambridge: Cambridge University Press, 2005), pp. 75-101.

<sup>68</sup> TNA, WO 106/1347, Correspondence between BSF and CIGS, Report on Administrative Control of Salonika Army by Egypt by Lieutenant-Colonel C. C. M. Maynard, n.d. (c. September 1916).

<sup>69</sup> *Ibid.*, P. de B. Radcliffe to Barge, 1 June 1918.

supply and transport considerations. In July 1917, Robertson appointed a liaison officer between the War Office and the EEF: Lieutenant-Colonel Archibald Wavell. Explaining his motives to Allenby, Robertson was at pains to stress that Wavell is ‘in no way a spy’, but rather he was appointed ‘to help you and to help me’.<sup>70</sup> By establishing this system of liaison officers, the War Office had the eyes and ears to appreciate the many difficulties facing the different expeditionary forces, both tactically and administratively. The system also provided the means of sharing information and knowledge.

In addition to these liaison officers, the army also established a series of less formal attachments. Governed by the GHQs of the various expeditionary forces, these attachments were often in response to identified gaps in that force’s knowledge or skill base. The request for suitable instructors for training schools is a good example of this. The same can be said for staff officers or those individuals with specialist knowledge.<sup>71</sup> As early as March 1916, Brigadier-General Philip Howell (BGGs, BSF, 1915-1916) drew attention to the ‘rapidly decreasing’ proportion of staff officers with Staff College or specialist training. Howell suggested arranging ‘permanent or temporary transfers’ to widen the experience and knowledge of new and existing staff officers.<sup>72</sup> Milne was vocal in his support for secondments. In early 1918, he advocated ‘an interchange of officers between Salonica and the French and Italian fronts’. Lieutenant-Colonel Edward Plunkett, a liaison officer to the BSF, wrote how Milne believed that:

80% of the officers at Salonica would volunteer for service in France, while a large number of officers now in France would welcome a change to Salonica although they would not take the initiative and apply for a transfer [...] There are many officers at Salonica with from 10 to 20 years’ experience, and Lt-Gen Milne does not consider that the country is getting full value from the time and money spent on their military education. Their reliefs would soon learn their work at the Salonica front which is an excellent training ground.<sup>73</sup>

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<sup>70</sup> LHCMA, Papers of Field Marshal Viscount Allenby, 1/8, Allenby to wife, 9 July 1917.

<sup>71</sup> TNA, WO 95/4371, EEF GHQ War Diary, Telegram, War Office to EEF GHQ, 17 September 1918.

<sup>72</sup> TNA, WO 106/1347, Correspondence between BSF and CIGS, Howell to GOC XII Corps, 1 March 1916.

<sup>73</sup> *Ibid.*, Plunkett to War Office, 17 January 1918.

In addition to this ‘interchange of officers’, Milne was also keen to benefit from the up to date methods found on the Western Front. To realise this, he sanctioned two visits to the Western Front in 1917. Both these visits highlighted the roles that individuals could play in promulgating new methods within an organisation. The first was the despatch of Gillman to Britain and the Western Front in early July 1917. Whilst on the Western Front, Gillman went ‘round all the training schools in General [Sir Arthur] Holland’s 1st Corps and picked up a lot of tips as regards modern developments of training which will, I hope, be useful at Salonika’.<sup>74</sup> Upon his return to Salonika later that month, Gillman went ‘round the various fronts and explained what I had learnt in France as to the system of training’. In a letter to his wife, he noted how busy he was ‘explaining to our corps and division commanders the innovations and good points I noticed... and shall get things going on the newer lines’. Of paramount importance to Gillman was that ‘we *must* keep up to date here’.<sup>75</sup>

The second of these visits was the attachment of a number of senior artillery officers to formations on the Western Front to ‘study modern artillery methods’ in early July 1917.<sup>76</sup> This party included, amongst others, Major-General William Onslow (MGRA, BSF), Brigadier-General Hugh White-Thomson (Brigadier-General, Royal Artillery [BGRA], XII Corps) and Lieutenant-Colonel Philip Holbrooke, who later became the XII Corps’ first counter-battery staff officer [CBSO] in August 1917.<sup>77</sup> By sending these senior officers, Milne increased the likelihood that modern, Western Front artillery methods would disseminate throughout his force. Gillman recalled how these senior officers ‘gave an interesting account of their visit. The difference between there and here is in masses of guns. In France for an attack you require a gun for every 8 yards of front... Here we have one gun for every 200 yards’.<sup>78</sup> The decision to sanction this attachment likely explains the subsequent decision to trial a CBSO at XII Corps in

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<sup>74</sup> RAI, Gillman Papers, MD1161 4/19, Diary DF109, 9-10 July 1917.

<sup>75</sup> RAI, Gillman Papers, MD1161 4/20, Gillman to wife, 23 July 1917. Original emphasis.

<sup>76</sup> LHCMA, Papers of Field Marshal Sir G. F. Milne, Box III, BSF War Diary, 23 June 1917; TNA, WO 95/4757, BSF GHQ War Diary, 23 June 1917.

<sup>77</sup> TNA, WO 95/4757, BSF GHQ War Diary, Cory to GOC XII Corps, 29 August 1917.

<sup>78</sup> RAI, Gillman Papers, MD1161 4/20, Diary DF114, 5 August 1917.

order to ‘carry out counter battery work as employed in France’.<sup>79</sup> CBSOs were established on the Western Front from January 1917 onwards – seven months earlier than Salonika.<sup>80</sup> Sound ranging, a vital component of counter-battery work, was pioneered and developed on the Western Front.<sup>81</sup> By November 1918, there were twenty-five sound ranging groups on the Western Front and a handful scattered among the Italian, Palestine, and Salonika theatres.<sup>82</sup> To benefit from this new technology, the subsidiary theatres relied on the despatch of trained officers from France, or alternatively, they were required to send their own officers for attachment and training on the Western Front.<sup>83</sup> It was only in January 1918 that sound ranging was added to the establishment of the Field Survey Companies in Salonika. Even with attachment programmes and liaison officers, the limited availability of equipment for the subsidiary theatres could often result in a lag when importing Western Front practice.<sup>84</sup>

Much like secondments, the use of inter-theatre command appointments provided another highly personalised way of sharing knowledge. Personnel movement is an important transmission channel. Not only do individuals bring their own experience and knowledge with them, but they are also capable of challenging taken for granted assumptions. As Kristen Harkness and Michael Hunzeker have argued, leadership turnover can facilitate adaptation. The appointment of new commanders can disrupt institutional memory, exposing units to new practices and approaches, particularly when those leaders have different backgrounds or

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<sup>79</sup> TNA, WO 95/4757, BSF GHQ War Diary, Cory to GOC XII Corps, 29 August 1917.

<sup>80</sup> For consideration of counter-battery on the Western Front, see A. Palazzo, ‘The British Army’s Counter-Battery Staff Office and Control of the Enemy in World War I’, *Journal of Military History* 63 (1999), pp. 55-74.

<sup>81</sup> See N. A. Trudeau, ‘Returning Fire’, *MHQ: Quarterly Journal of Military History* 23 (1) (2010), pp. 10-13; W. Van der Kloot, ‘Lawrence Bragg’s role in the development of sound-ranging in World War I’, *Notes and Records of The Royal Society* 59 (2005), pp. 273-284; R. MacLeod, ‘Sight and Sound on the Western Front: Surveyors, Scientists and the ‘Battlefield Laboratory’, 1915-1918’, *War and Society* 18 (1) (2000), pp. 23-46.

<sup>82</sup> Institution of Royal Engineers, *The Work of the Royal Engineers in the European War, 1914-19: Miscellaneous. The Organization and Expansion of the Corps, 1914-18* (Chatham: W&J Mackay & Co., 1927), pp. 18-19.

<sup>83</sup> Institution of Royal Engineers, *History of the Corps of Royal Engineers*, VI (London: Longman’s, 1952), p. 126.

<sup>84</sup> For problems around supply to BSF and EEF in particular, see TNA, WO 95/4269, Director of Supplies and Transport MEF War Diary, 3 December 1915; IWM, Lynden-Bell Papers, 90/1/1, Lynden-Bell to Maurice, 17 January 1917.

experiences from their predecessors.<sup>85</sup> Conversely, they may also experience a certain degree of ‘stickiness’.<sup>86</sup> As an outsider, their ways of working may be considered inappropriate and subject to ‘Not Invented Here’ syndrome, resulting in a battle against existing cultural or social processes. General Sir Edmund Allenby’s appointment to command the EEF in June 1917 offers a good example of the successful impact of such an appointment.

Before his departure for Palestine, Allenby supposedly broke down in front of Sir Julian Byng, his successor as commander of Third Army. Allenby was ‘desolate’ at being moved to Palestine and saw it as a punishment for his failings as commander of Third Army during the battle of Arras.<sup>87</sup> In spite of this, his presence in Palestine contributed to an increase in morale and a greater dissemination of Western Front practice throughout the EEF. Although the appointment of commanders and senior officers was both political and bureaucratic, the subsequent impact of that commander was highly individual.<sup>88</sup>

As the newly appointed CinC of a demoralised expeditionary force, Allenby had little difficulty impressing his way of working on to the EEF. Within six weeks of taking up his appointment, he requested ‘gas equipment and personnel’ from Robertson. Gas had been used to great effect by Third Army in the opening stages of the battle of Arras in April 1917, and Allenby was certain that gas ‘ought to be of great use opposite Gaza, and possibly elsewhere’.<sup>89</sup> Although there was no denying the differing tactical and geographic conditions of the Western Front and Palestine, he encouraged the dissemination of Western Front material. In a conference with senior officers, Allenby informed them that GHQ would produce extracts from certain SS pamphlets and distribute these to the troops.<sup>90</sup> However, this process of dissemination was not passive. The EEF used lectures and demonstrations to great effect, ensuring that its men were

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<sup>85</sup> Harkness and Hunzeker, ‘Military Maladaptation’, p. 6.

<sup>86</sup> See G. Szulanski, ‘Exploring Internal Stickiness: Impediments to the Transfer of Best Practice within the Firm’, *Strategic Management Journal* 17 (1996), pp. 27-43.

<sup>87</sup> M. Hughes (ed.), *Allenby in Palestine* (Stroud: Sutton, 2004), p. 7.

<sup>88</sup> Beach, ‘General Staff’, p. 467.

<sup>89</sup> LHCMA, Robertson Papers, 8/1/68, Allenby to Robertson, 8 August 1917.

<sup>90</sup> TNA, WO 95/4368, EEF GHQ War Diary, Minutes from Commander-in-Chief’s Conference, 27 August 1917.



up to date with the latest Western Front methods. On 15 October 1917, Major-General Sir Louis Bols, the EEF's newly appointed CGS and Allenby's former Chief of Staff at Third Army, delivered a lecture to senior officers in the 52nd Division on recent fighting methods utilised on the Western Front.<sup>91</sup> Allenby also had no qualms about bringing his recent knowledge to bear. Following an inspection of the Eastern Force's trenches in July 1917, he wrote to the force's commander, voicing concern over the narrowness of the trenches. To Allenby, this contradicted the 'experience in France', which suggested that narrow trenches led to greater casualties. He simply asked the commander to consider the matter and report his modifications.<sup>92</sup>

In addition to the promulgation of Western Front methods, Allenby actively sought 'young and vigorous' officers with 'French experience' to fill key positions in the EEF.<sup>93</sup> Brigadier-General Sir Richard Howard-Vyse was one of these officers. A known quantity to Allenby, Howard-Vyse had served as BM to the 5th Cavalry Brigade, which formed part of the Cavalry Corps – a formation Allenby had commanded from late 1914 to May 1915. Allenby requested him directly in order to take up the position of BGGS to the Desert Mounted Corps. In a letter to Robertson, Allenby recognised that bringing in an outsider was likely to cause a 'little soreness', but he felt that:

A little new blood... will do good. There is some slight tendency to put forward the local article as being the only one worth considering. Changes are always uncomfortable; but I am being firm...<sup>94</sup>

By virtue of his position as CinC, Allenby was able to select the best man for the job. This was particularly important where staff officers were concerned. The inadequate supply of trained staff officers was a problem in all theatres. In correspondence with Sir James Edmonds, the British official historian, Lieutenant-General Sir Charles Dobell, former GOC Eastern Force,

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<sup>91</sup> TNA, WO 95/4598, 52nd Division GS War Diary, 15 October 1917.

<sup>92</sup> TNA, WO 95/4368, EEF GHQ War Diary, 2 August 1917.

<sup>93</sup> LHCMA, Robertson Papers, 8/1/65, Allenby to Robertson, 26 July 1917.

<sup>94</sup> LHCMA, Robertson Papers, 8/1/68, Allenby to Robertson, 8 August 1917.

bemoaned the ‘inadequate staff’ as a ‘weakness’.<sup>95</sup> It is unsurprising then that within months of his arrival, Allenby had secured three senior officers with Western Front experience, placing them in key staff appointments: Bols as CGS, Howard-Vyse as BGGs, Desert Mounted Corps, and Brigadier-General William Bartholomew as BGGs, XX Corps.<sup>96</sup>

The frequency and intensity of operations on the Western Front provided staff officers with considerable experience in operational planning and execution. This experience was vital in theatres where operations were necessarily complex, but often infrequent in nature. By using Western Front staff officers, Allenby ensured that commanders with combat experience in Palestine were supported by staff who had cut their teeth in high tempo operations. Lieutenant-General Sir Philip Chetwode (GOC XX Corps) was uncommonly praiseworthy of Bartholomew’s talents, particularly in the preparations for the battle of Beersheba in October 1917. Chetwode recalled how the plan was ‘worked out by him [Bartholomew] for me and the complications were so great in moving four divisions... that my heart nearly failed me’.<sup>97</sup> The relationship between Bartholomew and Chetwode was a particularly close one. In a letter congratulating Bartholomew on his promotion to Allenby’s staff in April 1918, Chetwode reminisced about their ‘unforgettable experience’ together and praised his former BGGs’s ‘clear head, grasp of detail, [and] tactical knowledge’.<sup>98</sup> Their personal and professional relationship continued well into the 1930s with Bartholomew’s appointment to CGS during Chetwode’s tenure as CinC, India.

Similarly to Allenby, Lieutenant-General The Earl of Cavan (GOC XIV Corps and subsequent commander of the IEF) brought his own Western Front experiences to bear during his time on the Italian front. However, unlike Allenby, Cavan went to Italy as part of the

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<sup>95</sup> TNA, CAB 45/80, Official War History Correspondence: Egypt and Palestine, Dobell to Edmonds, n.d., ‘Personal Notes on First and Second Gaza’, p. 9.

<sup>96</sup> In a letter to his wife, Allenby expressed uncertainty as to who would replace Lynden-Bell. There was undoubtedly a roster for promotion, but it is likely that Allenby played some part in securing Bols’ appointment. See LHCMA, Allenby Papers, 1/8, Allenby to wife, 5 September 1917.

<sup>97</sup> TNA, CAB 45/78, Official War History Correspondence: Egypt and Palestine, Chetwode to MacMunn, 17 May 1926.

<sup>98</sup> LHCMA, Papers of General Sir W. H. Bartholomew, 1/13, Chetwode to Bartholomew, 25 April 1918.

original expeditionary force. He was not an outsider and, therefore, did not have to navigate the existing cultural or social mores unique to each expeditionary force. The divisions that constituted the IEF were all despatched from the Western Front.<sup>99</sup> They had all seen recent action during the Third Battle of Ypres. The Western Front was, therefore, a natural reference point for commanders and men. This was typified in the XIV Corps' orders on 20 January 1918 requesting that infantry support all isolated machine gun emplacements as a result of experience during the German counter-attack at Cambrai.<sup>100</sup> The proceedings of a conference held at the 23rd Division's HQ in April 1918 also drew attention to 'the various letters issued dealing with the experiences gained from the recent German offensives in France'. Training was to focus on 'forestalling those of the enemy's method of attack, which proved successful'.<sup>101</sup> Some formations, such as the 69th Brigade, actively reorganised their defensive disposition as a result of their experience on the Western Front.<sup>102</sup> In December 1917, the 69th Brigade established 'strong lines of Lewis Gun defence on to the lower slopes of the hill with lines of Machine Gun defence on the middle and higher slopes'.<sup>103</sup>

The 48th Division also made the decision to defend in depth, most notably during the battle of Asiago in June 1918. Major-General Sir Robert Fanshawe, the division's commander, had actively encouraged elastic defence as early as 1915 and, through this tactic, had never lost a defensive position.<sup>104</sup> However, when the Austrian assault fell on 15 June 1918, the 23rd Division checked the advance, but the 48th Division could not hold. The Austrians penetrated the centre of the 48th Division, forming a pocket in its front line. The subsequent loss of ground resulted in Cavan dismissing Fanshawe. In correspondence with Edmonds, Cavan claimed that he dismissed Fanshawe due to the latter's decision to man the front line thinly and the fact that

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<sup>99</sup> The divisions included 5th, 7th, 23rd, and 48th Divisions.

<sup>100</sup> TNA, WO 95/4229, 23rd Division GS War Diary, 20 January 1918.

<sup>101</sup> *Ibid.*, 26 April 1918.

<sup>102</sup> H. R. Sandilands, *The 23rd Division, 1914-1919* (London: Blackwood & Sons, 1925), p. 224.

<sup>103</sup> TNA, WO 95/4237, 69th Brigade War Diary, 3-31 December 1917.

<sup>104</sup> TNA, CAB 45/84, Official War History Correspondence: Italy, Carrington to Edmonds, 28 June 1944.

he gave way too easily.<sup>105</sup> However, Fanshawe had fought a model defence in depth battle as laid out in *SS210 The Division in Defence*.<sup>106</sup> He had encouraged an elastic defence, counter-attacking, and reoccupying the lost ground the following morning.<sup>107</sup> It could be argued that had the British line been strongly held 'in the Italian fashion' then there might have been no break-in.<sup>108</sup> However, the British had no experience of mountain warfare in Europe. Used to German, rather than Austrian, bombardments, IEF formations decided to adhere to the principles of defence in depth as developed on the Western Front. The Austrians' lack of drive in pushing the attack forward allowed Fanshawe to utilise his Western Front experience by counter-attacking and retaking the lost ground. However, whether through Cavan's misunderstanding of the principles of defence in depth or through his desire to scapegoat Fanshawe, the incident reveals the potency of both previous experience and personal command to the conduct of operations in other theatres.

Allenby and Cavan were not exceptions to the rule. There are wide-ranging examples of other commanders transferring their knowledge and experience from one theatre to another. Both Harrison and Syk, for example, have shown how Maude drew on his experience of commanding in France and Gallipoli to overhaul medical and logistical practices when appointed to command the Mesopotamian Expeditionary Force; while Kristian Coates Ulrichsen labelled General Sir Charles Monro's staff appointments when CinC India as 'a prime example of cross-campaign absorption of lessons learned'.<sup>109</sup> This transfer of experience was apparent at the divisional level too. The appointment of Major-General Sir George Forestier-Walker to the 27th Division in Salonika saw an increase in both Western Front practice, and the sharing of ideas and schemes between formations. Forestier-Walker had formerly commanded the 21st

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<sup>105</sup> *Ibid.*, Cavan to Edmonds, 28 June 1944.

<sup>106</sup> General Staff, *SS210 The Division in Depth* (May 1918).

<sup>107</sup> C. E. Carrington, 'The Defence of the Cesuna Reentrant in the Italian Alps by the 48th Division', *Army Quarterly* 14 (2) (1927), pp. 309-311.

<sup>108</sup> J. E. Edmonds, *Official History of the Great War: Military Operations, Italy 1915-1919* (Nashville: The Battery Press, 1991 [1949]), p. 217.

<sup>109</sup> Harrison, *The Medical War*, p. 223; A. Syk (ed.), *The Military Papers of Lieutenant-General Sir F. S. Maude, 1914-1917* (Stroud: History Press, 2012), pp. 15, 18; Ulrichsen, *Middle East*, p. 138.

Division on the Western Front before taking up command of the 27th Division in December 1916. As a regular division, the 27th Division had a good reputation. One of its former commanders, Lieutenant-General Sir William Marshall, wrote in January 1916 how ‘very pleased’ he was at commanding the 27th Division, as ‘everyone tells me its first class and certainly from the little I have seen I think so too’.<sup>110</sup> Forestier-Walker was keen to draw on his Western Front experience to ensure that the division was kept up to date with the latest techniques.<sup>111</sup> Much like Allenby, Forestier-Walker reinforced the need to read and, where appropriate, adopt *SSI44 The Normal Formation for the Attack* and *SSI35*. He also frequently wrote to contacts in France and Britain to seek clarification on certain tactical methods, including advice on precautions against gas and the methods of carrying Lewis Guns.<sup>112</sup> One of his first decisions upon taking command was to inaugurate weekly conferences. These would allow for ‘discussing questions of general interest at a time when everybody concerned was present’, whilst also giving commanders and staff officers ‘an opportunity of getting to know each other well’.<sup>113</sup> This provided a solid bedrock for the sharing of ideas and knowledge. Forestier-Walker insisted on circulating ‘all interesting schemes received from Inf[antry] B[rigades] or 16th Corps’, as ‘an interchange of ideas would be interesting and perhaps lead to further ideas’. In addition to this, he believed that ‘for perfect co-operation... all should know what their neighbours are doing and how they did it’.<sup>114</sup> Brigade commanders were actively encouraged to ‘visit one another’s defence lines’, as a ‘great deal of information can always be obtained by such visits’.<sup>115</sup>

However, as with the use of military publications, practices learned in one theatre were not always relevant or applicable to other theatres, particularly when they failed to consider

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<sup>110</sup> LHCMA, Papers of Lieutenant-General Sir W. R. Marshall, 1/20, Marshall to J. E. Marshall, 1 January 1916.

<sup>111</sup> TNA, WO 95/4878, 27th Division GS War Diary, 27th Divisional Conference Proceedings, 27 March 1917 and 10 April 1917.

<sup>112</sup> *Ibid.*

<sup>113</sup> *Ibid.*, Divisional Conference Proceedings, 9 January 1917.

<sup>114</sup> *Ibid.*, Divisional Conference Proceedings, 20 March 1917.

<sup>115</sup> *Ibid.*, Divisional Conference Proceedings, 21 February 1917.

local conditions. In a letter to the Director of Supplies and Transport [DST] at the War Office, Koe, then DST to the MEF, commented on the work of Brigadier-General Reginald Ford who worked on the MEF Lines of Communication. Though ‘an extremely able man’, Ford suffered under ‘the disadvantage of not having been up here and... does not realise the conditions’. His method for the advanced supply of rations – ‘obviously the result of his experience in France’ – was incompatible with the conditions faced by the MEF.<sup>116</sup> Ford’s decision to undertake automatic supply was predicated on the complex logistical infrastructure as found on the Western Front. However, this infrastructure simply did not exist in the MEF in late 1915. Koe rightly complained that if automatic supply were to be used, the result would be a ‘harbour full of ships which [I] could not get unloaded’. As with the combat formations on the Italian front, Ford’s natural reference point was the Western Front. However, unlike those combat formations, Ford implemented his method with little understanding of the complexities facing the Mediterranean theatre.<sup>117</sup>

Although personnel movement ranked highly as a transmission channel, its effectiveness was often determined by the influence and position of the individual concerned. As CinCs of independent expeditionary forces, Allenby and Cavan took advantage of their positions to impress their experience and ways of working on to their subordinates. For ‘outsider’ mid-level officers joining formations in new theatres, the possibility of encountering ‘Not Invented Here’ syndrome increased. As later chapters will show, this was particularly acute when officers or combat formations moved to the Western Front after serving in a subsidiary theatre. This two-tier view of the Western Front and the ‘other’ theatres resulted in a snobbery that largely favoured the former. In response to Brigadier-General Henry Sloman’s request for employment on the General Staff in France, Lieutenant-General Sir Launcelot Kiggell (CGS, BEF, 1915-1917) candidly replied that:

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<sup>116</sup> TNA, WO 107/22, Director of Supplies and Transport, MEF to War Office, 1 December 1915.

<sup>117</sup> *Ibid.* Koe also notes that he had written to Ford ‘to say that he had better come up and see for himself’.

... it is not easy to place officers of your rank and age on the General Staff when they have not had recent experience out here. The attempts we have made in that direction have not proved encouraging, as the responsible Commanders are naturally anxious to get men who are absolutely up to date with various peculiarities of this war.<sup>118</sup>

This attitude towards ‘outsiders’ can also be found in Edmonds’ memoirs. In an anecdotal account of the German spring offensive, Edmonds recalled how ‘information of the GHQ policy became essential’, but he could ‘learn nothing’ from Lieutenant-General Sir Herbert Lawrence (CGS, BEF, 1917-1918) or Dawnay, as both were ‘Palestinians [*sic.*] and not used to fighting Germans. They seemed terror stricken’.<sup>119</sup> There is no evidence to support Edmonds’ assertion, but this attitude towards individuals and formations with experience in the subsidiary theatres was far from unusual. In a letter to Robertson, Kiggell wrote how commanders and formations on the Western Front were ‘up against it’ in a way that they [those in the subsidiary theatres] are not and can never be in those countries’.<sup>120</sup>

As we have seen, secondments and command appointments provided a fruitful avenue for sharing knowledge. However, as this section will show, personal interaction and the act of socialising also provided a potent method for sharing knowledge between theatres. Owing to restrictions on publication, it was very rare for knowledge to be shared through the medium of professional service journals during the war. A 1916 Army Council order declared that ‘officers and soldiers are forbidden, without special authority, to publish any article, whether purporting to be fiction or fact, which in any way deals with the war or with military matters’.<sup>121</sup> This

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<sup>118</sup> LHCMA, Papers of Lieutenant-General Sir L. E. Kiggell, 4/89, Kiggell to Sloman, 6 March 1917.

<sup>119</sup> LHCMA, Papers of Brigadier-General Sir J. E. Edmonds, 3/14, Memoirs, Chp. 30, pp. 621-622. There is no corroboratory evidence to support Edmonds’ assertion. Paul Harris has taken issue with Edmonds’ dismissal of Lawrence’s Palestinian experience. See P. Harris, ‘Soldier Banker: Lieutenant-General Sir Herbert Lawrence as the BEF’s Chief of Staff in 1918’, *Journal of the Society for Army Historical Research* 90 (361) (2012), pp. 44-67.

<sup>120</sup> LHCMA, Kiggell Papers, 4/19, Kiggell to Robertson, 3 June 1916.

<sup>121</sup> TNA, WO 123/58, Army Council Order [ACO] 212 (XIII), Publication of Articles in the Press Forbidden, 1916.

declaration also extended to the publication of regimental magazines in the EEF. In November 1916, a GRO declared that:

no Regimental, Trench, Station or Camp Magazine is in future to be issued without sanction from superior authority... Information regarding the movements, actions and situations of units which would be of value to the enemy will not be published...<sup>122</sup>

The constraints imposed on professional journals and trench magazines limited the number of ways that information could be exchanged informally between theatres. This often meant that personal interaction was the most effective way of sharing information. This could be through face-to-face interaction, correspondence, or individual socialising, both inside and outside the confines of the army.

Some modern management theory depicts the process of organisational learning as an iceberg. The small section above water covers formal learning, while the larger, submerged section represents informal learning.<sup>123</sup> The prevalence of informal learning can be attributed to the fact that individuals are often likely to turn to each other, rather than documents, for information.<sup>124</sup> The use of informal social networks allows individuals to circumvent often unwieldy formal systems, thus reducing the problem of knowledge lag.<sup>125</sup> In modern parlance, these ‘water cooler’ conversations are vital occasions for knowledge transfer. Naturally, some of the talk will focus on gossip and mutual interests, but these conversations will also focus on work. They allow individuals to discover what they know, share it with colleagues, and create

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<sup>122</sup> TNA, WO 123/282, GRO 222 (1880), 7 November 1916.

<sup>123</sup> F. Coffield, ‘The Structure Below the Surface: Reassessing the Significance of Informal Learning’, in F. Coffield (ed.), *The Necessity of Informal Learning* (Bristol: Policy Press, 2000), p. 1.

<sup>124</sup> For further discussion, see H. Mintzberg, *The Nature of Managerial Work* (New York, 1973); D. Z. Levin and R. Cross, ‘The Strength of Weak Ties You Can Trust: The Mediating Role of Trust in Effective Knowledge Transfer’, *Management Science* 50 (10) (2004), pp. 1477-1490; F. D. Schoorman, R. C. Meyer, and J. H. Davis, ‘An Integrative Model of Organization Trust: Past, Present and Future’, *Academy of Management Review* 32 (10) (2007), pp. 344-354.

<sup>125</sup> The use of informal networks to circumvent formal knowledge channels does pose greater problems for the organisation through lost knowledge. See O’Toole and Talbot, ‘Fighting for Knowledge’, pp. 42-67; Foley *et al.*, “Transformation in contact”, pp. 253-270.



new knowledge for the organisation.<sup>126</sup> These informal conversations are often more effective than formal structures in affecting organisational activities and outcomes.<sup>127</sup>

Although the army's shared ethos bound individuals together, the importance of informal networks to the working of the army cannot be overlooked. Knowledge does not simply result from processes or activities; it comes from people and communities of people. However, for conversations to take place at all, a connection is required. As we have seen, connections in the military were made in a number of ways: public school, shared attendance at Sandhurst or Staff College, previous military service, or through membership of other social groups, such as hunts, shooting syndicates, and gentlemen's clubs. In a letter to Lieutenant-General Sir Alexander Godley (GOC II Australian and New Zealand Army Corps [ANZAC]), for example, Milne reminisced on the fortunes of his cohort at the Staff College, noting that:

... a good many of us who were at the S[taff] C[ollege] together seem to be fairly busy in the war. You, Robertson, Gough, Hunter Bunter, Braithwaite... and many others... We know little of the war in France and anxiously pick up all the crumbs we can.<sup>128</sup>

Historians' tendency to focus on formal, hierarchical methods of learning has meant that the impact of these informal, lateral relationships has sometimes been overlooked. As these interactions were social and often ad hoc in nature, the process and outcome were very rarely written down. However, evidence of these interactions can be found in personal correspondence, particularly between senior officers. Like Milne, Maude was keen to keep in touch with Western Front developments during his time in Mesopotamia. Writing to his family, Maude noted that he was 'getting a good many letters now... from the War Office, and from Army, Corps and Divisional Commanders in France and Egypt'. This ensured that he was kept

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<sup>126</sup> T. Davenport and L. Prusak, *Working Knowledge: How Organizations Manage What They Know* (Boston, MA: Harvard Business School, 1998), pp. 90-92.

<sup>127</sup> This point is brought out more fully in A. J. Delmonte and J. E. Aronson, 'The Relationship Between Social Interaction and Knowledge Management System Success', *Journal of Knowledge Management Practice* 5 (2004) <http://www.tlinc.com/articl71.htm> [Accessed 5 January 2015].

<sup>128</sup> LHCMA, Papers of General Sir A. Godley, 3/180, Milne to Godley, 26 January 1916.

‘posted with what is going on there’.<sup>129</sup> Throughout the Gallipoli campaign, Rawlinson was in regular communication with senior officers in the MEF, including Godley, Walter Braithwaite, and Hamilton. The correspondence between these men considered the reasons for success or failure in the different theatres. In a letter to Clive Wigram, Rawlinson wrote that he had:

... heard from Braithwaite the other day describing the difficulties of the situation which confronts them – Achi Baba is not dissimilar to many of the fortified strongholds which confront us here so I sent him some of our experiences on the best way to deal with barbed wire and trenches.<sup>130</sup>

While serving at Gallipoli, Major-General Henry de Beauvoir De Lisle (GOC 29th Division) kept in close contact with his former staff from the 1st Cavalry Division.<sup>131</sup> Much like Gillman and Forestier-Walker, Beauvoir De Lisle was able to disseminate Western Front methods within his theatre of operations. In a letter to Hamilton, he noted that he had:

... heard last night from my old Bde Machine Gun officer, Captain McGillicuddy, 4th D[ragoon] G[uards], who is now Assistant Instructor at the GHQ Machine Gun School, France. He has worked out my idea of MG Indirect Fire and sent me his circulars. I consider them so valuable that I enclose them for your information. You may consider the advisability of a MG School here. In France it was a necessity...<sup>132</sup>

Far from preventing these informal exchanges, the army tolerated and, in some cases, encouraged these discussions. There was an acknowledgement that the army did not constitute a single culture. This ‘culture of sub-cultures’ was made even more apparent with the influx of citizen soldiers and temporary gentlemen into the expanded army. Formations such as the 1/8th Battalion London Regiment (Post Office Rifles), the 1/15th Battalion London Regiment (Prince of Wales’ Own Civil Service Rifles), and the 15th Battalion Highland Light Infantry (Glasgow Tramways) had shared work or social associations, thus strengthening the bonds between individuals. Shared membership of these external groups transcended the shared identity of the

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<sup>129</sup> Syk (ed.), *Maude*, p. 149.

<sup>130</sup> NAM, Papers of Lord Rawlinson, 5201-22-18, Letterbook 1915-1916, Rawlinson to Wigram, 7 June 1915.

<sup>131</sup> This was not limited to Beauvoir De Lisle. Allenby also received letters from his former aide-de-camp.

<sup>132</sup> LHCMA, Hamilton papers, 7/1/21, Beauvoir De Lisle to Hamilton, 24 July 1915.

army. It also provided another way of communicating and sharing information. These groups were social networks. Predicated on trust and shared values, they were a fundamental part of late Victorian and early Edwardian society. This was particularly true for gentlemen's clubs.

The gentlemen's club provided an informal space that facilitated encounters between individuals and ideas. George Ivey wrote that 'membership of a Club is now accepted as a guarantee of the position of a gentleman of various professions... and, as a bond of union, it is scarcely too much to say that Clubs preserve much of the virtue of the early chivalry in its cosmopolitan features'.<sup>133</sup> Clubs provided 'a reassuringly fixed point', working in tandem with the 'old boy network' created by the public schools, the universities, and the military.<sup>134</sup> One commentator notes that the gentlemen's clubs on Pall Mall were 'important, and seemingly timeless, monuments of national English culture'.<sup>135</sup> They were centres of socialisation and played the role of an information hub. It was a place where the masks of the powerful were dropped, where gossip and knowledge could be shared, protected by a strict code of ethics.<sup>136</sup> As Amy Milne-Smith has argued, gentlemen's clubs were key sites of male gossip. They were distinctly male spaces where talk was a leading attraction, which could sometimes lead to practical results in the outside world.<sup>137</sup>

Although the clubs' power peaked just before the outbreak of the First World War, they remained a vital part of society at home. During the war, a number of generals and senior officers were members of at least one club. The Army and Navy, United Service, and Naval and Military Clubs were the most popular. However, a number of generals, including Rawlinson, Murray, Sir Herbert Plumer, and Sir Steuart Hare, were also members of the Travellers' Club,

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<sup>133</sup> G. J. Ivey, *Clubs of the World* (2nd edn., London: Harrison, 1880), p. iii.

<sup>134</sup> A. Milne-Smith, 'A Flight to Domesticity? Making a Home in the Gentlemen's Clubs of London, 1880-1914', *Journal of British Studies* 45 (4) (2006), p. 95.

<sup>135</sup> M. Sinha, 'Britishness, Clubbability, and the Colonial Public Sphere: The Genealogy of an Imperial Institution in Colonial India', *Journal of British Studies* 40 (4) (2001), pp. 494-495.

<sup>136</sup> See J. C. Scott, *Domination and the Arts of Resistance: Hidden Transcripts* (New Haven: Yale University Press, 1990), pp. 56-57, 122; C. Moran, *Classified: Secrecy and the State in Modern Britain* (Cambridge: Cambridge University Press, 2012), p. 100.

<sup>137</sup> A. Milne-Smith, 'Club Talk: Gossip, Masculinity and Oral Communities in Late Nineteenth-Century London', *Gender and History* 21 (1) (2009), p. 88.

whilst Sir Bryan Mahon, Cavan, and Chetwode were members of the Turf Club. When returning to Britain, the club was often the first place to visit. It was ‘an invaluable house of call’ where ‘one met all one’s friends, coming or going’.<sup>138</sup> In July 1915, for example, Rawlinson noted hearing ‘from a man in the Travellers’ that the question of withdrawing our expedition from the Dardanelles was discussed. I saw both Lord Lansdowne and Sir Arthur Nicolson at the Travellers’ but could not get out of them what the cabinet had decided’.<sup>139</sup> For officers serving in Palestine with limited access to home leave, the gentlemen’s clubs of Cairo provided an important site for gossip and socialising. The Gezira Sporting Club and the Turf Club, in particular, were notable examples.<sup>140</sup> According to Lanver Mak, the Turf Club became ‘the hub of administrative discussions for many British officials’, and a ‘centre for exchanging gossip and discussing business’.<sup>141</sup> As Anthony DiBella notes, these serendipitous meetings and conversations in officers’ or gentlemen’s clubs throughout the world offered an informal mode of disseminating knowledge.<sup>142</sup>

‘Clubbability’ and the ‘old school tie’ encompassed a variety of pre-existing social networks that overlaid the shared identity of service in the army. These concepts still held currency in Edwardian society and were exploited by the army with the establishment of officers’ clubs and social clubs both abroad and in Britain. In a letter to his fellow brigade commanders in the 4th Australian Division, for example, Monash recommended the establishment of a divisional officers’ club at Tel-el-Kebir for ‘the social intercourse of officers of the Fourth Division’, including ‘special arrangements to be made for receiving and posting war and other news and bulletins of interest’.<sup>143</sup>

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<sup>138</sup> L. C. Jackson, *History of The United Service Club* (Aldershot: Gale and Polden, 1937), p. 118.

<sup>139</sup> CAC, Papers of Lord Rawlinson, RWLN 1/3, Diary 1915-1916, 3 July 1915.

<sup>140</sup> NAM, Hawker Papers, 1988-09-86, Diary Entry, 1 March 1916; NAM, Papers of Lieutenant-Colonel H. B. Holt, 7603-72-1, Holt to mother, 25 March 1918.

<sup>141</sup> L. Mak, *The British in Egypt: Community, Crime and Crises, 1882-1922* (London: I. B. Tauris, 2011), p. 96.

<sup>142</sup> A. DiBella, ‘Can the Army become a Learning Organization? A Question Reexamined’, *Joint Force Quarterly* 56 (1) (2010), p. 120.

<sup>143</sup> AWM, Monash Papers, 3DRL/2316 3/38, Monash to GOCs Brigades, n.d. [c. March 1916].

Although these groups provided potential avenues for sharing knowledge, the army also used its own formal training schools to promote socialising and discussion. The object of the first RE school of instruction at Le Parcq in 1916, for example, was to ‘enable officers from different parts of the line to exchange their experiences and methods, to their mutual advantage’.<sup>144</sup> The second RE school, which started at Blendecques in December 1917, built on the exchange principles espoused at Le Parcq. However, unlike Le Parcq, officers at Blendecques ‘came to know each other much better and consequently more discussion took place’.<sup>145</sup> This forum for discussion was not simply reserved for attendees on the course. In connection with the school, several conferences of divisional RE commanders were held under the presidency of an Army Chief Engineer, thus affording ‘an invaluable opportunity for exchange of ideas’.<sup>146</sup> The expansion of both the senior and junior staff schools at Cambridge University provided another way of encouraging socialising. Initially established for the training of staff officers in France, the staff schools extended their offer to candidates in subsidiary theatres from 1917 onwards. In January 1918, the EEF was allotted three places on the senior course and four places on the junior course.<sup>147</sup> For both the BSF and the EEF, this was a welcome offer given the premature closing of the staff school at Mena House on 19 June 1917. The extension of centralised staff training to the various expeditionary forces allowed those future staff officers to meet and converse with fellow candidates from the Western Front. It also gave them the opportunity to consider the type of administrative problems encountered on the Western Front. To encourage close working, candidates were organised into syndicates. The type of work at the junior staff school included preparing maps, drawing up march tables, and

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<sup>144</sup> Addison, *Schools*, p. 354.

<sup>145</sup> *Ibid.*, p. 355.

<sup>146</sup> *Ibid.*, p. 357.

<sup>147</sup> TNA, WO 95/4369, EEF GHQ War Diary, 14 January 1918. The BSF was also offered places on the two staff course, but the relevant paper work no longer accompanies the war diary. See TNA, WO 95/4757, BSF GHQ War Diary, 5 November 1917.

writing orders.<sup>148</sup> This work was based on actual operational orders from Armies or corps in France, thus placing learning in an operational context, rather than an invented theoretical scenario.<sup>149</sup> The evenings were spent socialising and, much like the RE schools, allowed candidates to discuss their own experiences and methods.

The army used both formal and informal methods enthusiastically across all its operational theatres. As we shall see in this final section, the effectiveness and importance of these methods varied. For an institution that prided itself on adaptation and devolved decision-making, the army began producing formal publications very early on in the war. The earliest known CDS pamphlet, *CDS2 Notes from the Front*, was published in December 1914. The need to codify information in an accessible format was important and necessary. There were certain barriers that prevented a solely ad hoc approach to sharing knowledge. These barriers related to the increasingly civilian make up of the army, along with its multiple commitments across the globe. As later chapters will show, there was a need for formal methods, such as publications and training schools, when attempting to integrate both combat formations and national contingents into the army. Given the intensity of war and the rapid development of new technologies and tactics, it was necessary to codify this new knowledge for the benefit of both professional soldiers and citizens in uniform. However, the fact that ad hoc, informal methods were still practised alongside these formal approaches raises two points: first, that the formal methods may not have been as effective as anticipated, and secondly, that ad hoc methods were still seen as important. The effectiveness of formal methods will be considered first.

Although formal methods were useful for the dissemination of common doctrine and for integrating newcomers, their effectiveness was subject to certain weaknesses, such as knowledge lag and the army's ethos. As we have seen, publications and, by extension, training

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<sup>148</sup> IWM, Papers of Brigadier T. S. Louch, 12281 P271, Part III – 1917-1918 Staff Duties, n.d, pp. 9-10. See also B. Bond and S. Robbins (eds.), *Staff Officer: The Diaries of Lord Moyne, 1914-1918* (London: Leo Cooper, 1987), p. 131.

<sup>149</sup> A. Fox-Godden, "'Hopeless Inefficiency'? The Transformation and Operational Performance of Brigade Staff, 1916-1918', in LoCicero, Mahoney, and Mitchell (eds.), *A Military Transformed?*, p. 146.

schools were continually reviewed to ensure they were responsive to front line realities. However, as Beach has shown, it took time to institutionalise this best practice.<sup>150</sup> It is easy to forget that doctrine production had its own learning curve. For the subsidiary theatres, the publication had to first arrive in theatre before being adapted (if necessary) to the situation confronting that particular force. This often resulted in a form of knowledge lag. In this respect, it is understandable that people-centred methods were used in order to secure up to date information to combat this lag. Gillman's brief attachment to the Western Front, for example, gave him the opportunity to talk with fellow commanders, as well as visit training schools. This knowledge, gained through informal means, was brought back to Salonika, leading to the establishment of an infantry training school to produce 'machine made soldiers'.<sup>151</sup> In this instance, knowledge was not lost to the organisation. Instead, Gillman sought to codify it with the establishment of a training school.

In addition to the problems of knowledge lag, a considerable weakness of formal methods related to the influence of the army's ethos. The army was an organisation traditionally suspicious of, and disinclined to promote, top-down standardisation. The case of *SS152*, as we have already seen, highlighted this suspicion and conflict of purpose. GHQ sought to promote commonality of method and uniformity of doctrine, specifying the types of courses to be offered at division and brigade levels. This was a coherent approach, but one that was undercut by the army's decision to preserve a commander's responsibility to train his own men. *SS152*, however, was just a manifestation of a deeper, unresolved tension between the 'man on the spot' and the higher command. A similar tension can be seen in the army's decision to move from pulled to pushed transfer in its dissemination of SS pamphlets.

The continuing importance of ad hoc, or informal, methods can also be attributed to the army's ethos.<sup>152</sup> Connections, patronage, and networking were important aspects of its culture. As Beach has argued, the 'contribution of training systems and the tactical beliefs of

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<sup>150</sup> Beach, 'General Staff', pp. 490-491.

<sup>151</sup> RAI, Gillman Papers, MD 1161 4/19, Salonika Diary, 5 August 1917.

<sup>152</sup> Foley, 'Dumb Donkeys', pp. 291-296.

commanders and their staffs are probably more important than pamphlets issued by higher headquarters'.<sup>153</sup> This was also underscored by the fact that individuals were more likely to turn to each other for knowledge or advice: who they knew had a significant impact on what they came to know.<sup>154</sup>

Owing to his innovative artillery tactics, Major-General Sir Henry Tudor, for example, was often consulted in an informal capacity by generals at GHQ for his views on smoke barrages.<sup>155</sup> As we have seen, generals in the subsidiary theatres took advantage of their existing social networks for advice, or sometimes to ascertain the lie of the land for promotion purposes. Prior to the Beersheba operations in October 1917, for example, Chetwode consulted Rawlinson, a fellow Old Etonian, over the difficulties of water supply in the Palestine theatre. The reply from Rawlinson was sensible enough: 'Why don't you do as I've done in my Army Area here? I've got nearly twenty miles of pipe lines laid down.' Chetwode smiled, remarking: 'I must tell him ... we've already got one hundred and fifty miles of pipe line.'<sup>156</sup> Although this example highlighted the infrastructure difficulties faced by the different theatres, it also demonstrated that individuals were comfortable using their personal relationships to help solve specific problems. In Salonika, Howell took advantage of his personal relationship with Haig to secure up to date publications prior to the army's decision to standardise distribution. This resulted in Haig sending him 'some reports which may interest you, and [I] have also got [Lieutenant-General Sir Richard] Butler to make up a package of publications on training questions which might be of use to you'.<sup>157</sup>

Even had it wanted to, the army could not prevent informal exchanges between individuals either inter- or intra-theatre. The difficulty was attempting to capture knowledge that fell outside the army's formal processes. As with the RE schools at Blendecques and Le Parcq,

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<sup>153</sup> Beach, 'General Staff', p. 467.

<sup>154</sup> R. Cross, A. Parker, L. Prusak, and S. P. Borgatti, 'Knowing What We Know: Supporting Knowledge Creation and Sharing in Social Networks', *Organizational Dynamics* 30 (2) (2001), p. 100.

<sup>155</sup> RAI, Papers of Major-General Sir H. H. Tudor, MD 1167, Ts Memoir, 26 December 1917.

<sup>156</sup> G. E. Badcock, *A History of the Transport Services of the Egyptian Expeditionary Force, 1916-1917-1918* (London: Hugh Rees, 1925), p. 313.

<sup>157</sup> LHCMA, Howell Papers, 6/2, Haig to Howell, 21 March 1916.



the army tried to harness the knowledge found within these informal exchanges through conferences and discussions after training schools. There was a recognition that such knowledge was important. However, the ad hoc occurrence of informal exchange was far more difficult to capture and codify. Ultimately, as Catignani has shown, organisational learning is ‘not only determined by an organisation’s formal learning systems, but also influenced by the pervasiveness of informal learning systems in which individuals are able to interpret and make sense of their experiences and share new operational knowledge through social interaction’.<sup>158</sup> It was impossible, and ill-advised, for the army to pursue a solely formal or informal approach.

In summary, owing to its rapid expansion and its increasing global commitments, the army was forced to develop or refine a series of formal methods to share knowledge between its expeditionary forces. It could no longer solely pursue the ad hoc, highly personalised approach that had typified its pre-war experiences. As a result, forces were bombarded with the latest literature and tactics. However, owing to its ethos, the army was reticent when it came to enforcing this literature. Western Front publications often came with a caveat around the ‘considerable dissimilarity in conditions and methods’.<sup>159</sup> The various forces were not obliged to adhere to Western Front practice, suggesting that the army had not completely departed from its tendency towards decentralised decision-making.

As both Foley and Beach have argued, the development of formal methods took time to mature. However, the army could not favour these formal methods over informal ones. In keeping with its highly personalised approach, the army actively encouraged a variety of ‘people-to-people’ methods for sharing knowledge. It also had little choice but to tolerate underlying informal social networks. These networks were heavily influenced by social and cultural affiliations that transcended the shared culture of the army. The army exploited these affiliations. It understood the benefits of networking and conversation as a way of sharing

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<sup>158</sup> Catignani, ‘Coping with Knowledge’, pp. 30-31.

<sup>159</sup> AWM, Papers of Field Marshal Lord Birdwood, 3DRL/3376 11/12, War Office to Birdwood, 5 December 1914.

knowledge, both in theatre and between theatres. Such methods were a legacy of the army's preference for pragmatic solutions. However, as we shall see later, these methods were not just used to share knowledge between theatres. They were vital tools for integrating combat formations into new theatres, as well as national contingents such as the AIF.

Although the various expeditionary forces had their own tactical and geographical peculiarities, coupled with the inevitable differences in scale and tempo, lessons and innovations from the Western Front were highly sought after. Training schools based their syllabi on Western Front publications and preferred instructors with 'experience gained in France'. Senior officers and commanders were willing to engage with these publications in order to identify, assess, and, where required, adapt the learning process of the Western Front to suit conditions in their own theatres. As one soldier theatrically recalled:

... these minor theatres were not very reputable places of entertainment, and failed consequently to attract the best kind of public. But later on -- after perhaps two or three years -- they had learned some lessons in the presentation of the drama; the influence of the Principal Theatre was, I believe, responsible for many improvements. The performances certainly became more "legitimate", more conventional... and starred names, even, appeared upon the bills.<sup>160</sup>

The swift and efficient transfer of knowledge was important to the army's success. This transfer would also involve looking not only beyond the Western Front, but also beyond the army's institutional boundaries. It was only by identifying and acting on innovation – whether military or civilian – that the army could respond effectively when faced with the 'adapt or die' dilemma.

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<sup>160</sup> H. B. R. (pseud.), 'A Memory of a Side-Show', *Army Quarterly* 3 (1) (1921), p. 77.

## CHAPTER 3

### A CULTURE OF INNOVATION?

In a statement to the House of Commons on 19 November 1917, David Lloyd George announced that he had ‘only twice... acted against the advice of soldiers’.<sup>1</sup> The first related to his time as Minister of Munitions where he ‘laid down a programme which was in advance of the advice of soldiers and against it’ for the ‘extravagant’ manufacture of guns and shells. The second case where he ‘pressed’ his advice on soldiers ‘against their will’ was with the appointment of Sir Eric Geddes to reorganise transportation on the Western Front. His implication was that the army, and indeed the wider military establishment, not only shunned civilian involvement, but was also averse to change. Lloyd George saw himself as a radical innovator, willing to take chances. This was evident during his tenure as Minister of Munitions. In his *War Memoirs*, Lloyd George saw the military as rigid and restrictive. Its methods ‘allowed no play for initiative, imagination and inventiveness’, while ‘the men on the heights offered no encouragement or chances to genius down below’.<sup>2</sup> If Lloyd George was to be believed then it was only through the forcible efforts of individuals outside the military establishment that innovation could be realised.

This idea that militaries are averse to change is not new and has proved an important element in military innovation literature. The hierarchical nature of military establishments is viewed as a barrier to change.<sup>3</sup> Militaries are seen as rigid and bound by rules. The tendency towards what Lloyd George called ‘instinctive obedience’, coupled with rigidity in dress and parade-ground practice, would suggest rigidity of military thought. However, as Kollars has argued, rule-based, hierarchy-driven military organisations tend to become fluid when exposed to Clausewitzian friction.<sup>4</sup> Decisions made in wartime, for example, do not always reflect a

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<sup>1</sup> *Hansard*, ‘Prime Minister’s Statement’, House of Commons Debate, 19 November 1917, vol 99 c904.

<sup>2</sup> Lloyd George, *War Memoirs*, II, p. 2040.

<sup>3</sup> Posen, *The Sources of Military Doctrine*, p. 226; Rosen, *Winning the Next War*, p. 2.

<sup>4</sup> Kollars, ‘War’s Horizon’, p. 22.

‘cautious, bureaucratic approach’.<sup>5</sup> Previous chapters have shown that the British army of the First World War was far from rigid. The flexibility of its organisational structure and ethos allowed it to respond effectively when faced with the ‘adapt or die’ dilemma. Most large organisations realise that innovation is key to institutional survival. They, therefore, attempt transformation to remain ahead of their competitors.<sup>6</sup> This was true for the British army. To defeat its adversary, the army had to be superior in the art of learning and adaptation. This superiority was underpinned by the army’s ability to identify the need for change, embrace its possibility, and generate support across the organisation.<sup>7</sup> However, fear of, or resistance to, change is endemic in organisations irrespective of their commercial or military nature. This is exacerbated by suspicion of knowledge from outside the immediate organisation. This suspicion was just as likely to occur with knowledge imported from another operational theatre, as it was from a civilian expert.

This chapter discusses change as a deliberate policy, rather than as a spontaneous act. It examines whether the army was flexible enough to respond to or instigate change through the appointment of particular individuals to positions of influence. It also assesses whether the appointments of such individuals were a symptom or the cause of a culture of innovation within the army. The army could be both responsive and flexible when it came to sharing knowledge and using expertise. It combined a mixture of informal and formal methods to accommodate these various aspects. This particular chapter examines whether the army demonstrated a similar ability when faced with the potential for developing or acting on innovative solutions. Geddes is a success story when it comes to implementing change, but was he the norm, or the exception to the rule?

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<sup>5</sup> Russell, *Innovation, Transformation, and War*, pp. 208-209.

<sup>6</sup> D. A. Fastabend and R. H. Simpson, “‘Adapt or Die’ The Imperative for a Culture of Innovation in the United States Army”, p. 2.

[http://www.au.af.mil/au/awc/awcgate/army/culture\\_of\\_innovation.pdf](http://www.au.af.mil/au/awc/awcgate/army/culture_of_innovation.pdf) [Accessed 2 August 2014].

<sup>7</sup> This process is underpinned by Kurt Lewin’s three-stage change process consisting of: unfreezing, change, and freezing. See K. Lewin, ‘Frontiers in Group Dynamics’, *Human Relations* 1 (1) (1947), pp. 34-37 in particular.

The chapter first considers the types of change experienced by the army, namely proactive and reactive. Secondly, it examines how particular individuals, whether they were ‘change agents’ or facilitators, were selected to realise change, examining four particular avenues that provided the army with such individuals. These include top-down appointments by the War Office, the army’s own acknowledgement and request for external expertise, direct approaches by individuals to the War Office or army, and the identification of individuals from within the army itself. Thirdly, it examines some of the organisational and personal challenges faced by these individuals both upon selection and appointment. Fourthly, it determines how the army mitigated these challenges and how successful it was in doing so. Finally, it assesses whether these individuals were able to bring about change, and whether the army had to modify its organisational and cultural norms to accommodate this.

Both change management theorists and military innovation scholars suggest that change does not often begin until the organisation faces the possibility of defeat, or ‘some real threat of pain that in some way dashes its expectations or hopes’.<sup>8</sup> This can be seen as reactive change – the most common form of change. However, proactive change is also possible. This sort of change represents an active attempt to avoid a future threat, or capitalise on a future opportunity. The establishment of the IWT, for example, is an instance of proactive change that came from the periphery of the military organisation.

The need for the IWT was highlighted by Commander Gerald Holland, a retired officer of the Royal Indian Marine who was employed as Marine Superintendent on the London and North Western Railway. Known to both Brigadier-General the Honourable Richard Montagu-Stuart-Wortley (Assistant Director of Movements, 1914-1915) and Lieutenant-General Sir James Wolfe Murray (CIGS, 1914-1915), Holland argued for the advantage ‘to be gained from

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<sup>8</sup> D. L. Couto, ‘The Anxiety of Learning’, *Harvard Business Review* (2002), p. 6; Farrell, ‘Improving in War’, pp. 571-573; Harkness and Hunzeker, ‘Military Maladaptation’, p. 8.

the utilisation and development of the French waterways for military transport purposes'.<sup>9</sup> Initially, Holland was turned away. The War Office was of the opinion that 'the railway systems in the theatre of war would be capable of coping with all demands made upon them'.<sup>10</sup> Undeterred by the initial response, Holland persisted. He had experience in such matters with his previous service on the naval transport staff during the Boer War, along with his subsequent appointment as principal port officer at Rangoon.<sup>11</sup> Convinced by a combination of his arguments, expertise, and military contacts, the War Office gave Holland a temporary commission in the RE and despatched him to France to consult with Brigadier-General John Twiss (Director of Railway Transport). Holland's direct approach bore fruit with the establishment of the IWT in January 1915. Aided by his role within the military establishment and his professional experience, Holland was able to convince the War Office that proactive change was required even though the existing transportation structure in France appeared, at that time, to accommodate the demands placed upon it. The scale of effort eventually involved was considerable. The tonnage conveyed on the IWT (including cross-channel barge traffic) in 1916 totalled 839,519, increasing to 2,378,342 in 1917, and then to 2,842,418 in 1918.<sup>12</sup>

For much of the time though, change in the army was reactive. This type of change is usually discontinuous, ad hoc, and often triggered by a crisis situation, which can be external or internal to the organisation.<sup>13</sup> With so many urgent stimuli to respond to, the army had little opportunity for anticipatory thinking. However, it is simplistic to suggest that the tendency towards reactive change was the result of military conservatism. Reactive change still led to a number of innovations, notably the establishment of the Special Brigade, tunnelling companies, and the Inspectorate of Training.

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<sup>9</sup> TNA, WO 158/851, History of the Inland Water Transport Directorate 1914-1919, pp. 4-5.

<sup>10</sup> *Ibid.*

<sup>11</sup> *The India List and India Office List for 1905* (London: Harrison and Sons, 1905), pp. 522-523.

<sup>12</sup> Institution of Civil Engineers Archive [ICEA], 623.6:656 ML, S. D'A. Crookshank, 'Transportation Report For the Year 1917', 1 June 1919, p. 13, and 'Transportation Report For the Year 1918', 1 June 1919, p. 18.

<sup>13</sup> R. T. By, 'Organisational Change Management: A Critical Review', *Journal of Change Management* 5 (4) (2005), p. 370.

The formation of the Special Brigade and the British use of gas on the Western Front was in response to the German gas attack on 22 April 1915. Following the attack, Field Marshal Sir John French telegraphed the War Office ‘asking for respirators’ and demanding that immediate steps were taken for retaliation.<sup>14</sup> Within four days of the attack, Bernard Mouat Jones, a private in the London Scottish and Assistant Professor at Imperial College, was commissioned into the RE and ordered by GHQ to organise a ‘small emergency chemical laboratory’ at St Omer.<sup>15</sup> From this laboratory, Mouat Jones and two other civilian professors were able to visit gas casualties at Poperinghe and Vlamertinghe, whilst also investigating protection measures in case of future attacks.<sup>16</sup> At the War Office’s Trench Warfare Department, Colonel Louis Jackson was tasked with heading up ‘preliminary investigations’ into gas reprisals, which involved liaising with the Royal Society’s Chemical Subcommittee. This subcommittee formed part of the Royal Society’s larger War Committee established in November 1914 to offer advice to the government on scientific matters.<sup>17</sup> A Conjoint Board of Scientific Societies – a scientific ‘War Cabinet’ – was also established to support the committee and coordinate Britain’s twenty-seven scientific and professional societies.<sup>18</sup>

The War Committee’s terms of reference were to ‘organise assistance to the Government in conducting or suggesting scientific investigations in relation to the war... and to appoint Sub-Committees not necessarily restricted to Fellows of the Society’.<sup>19</sup> Its subcommittees were organised around distinct disciplines: physics, chemistry, physiology, and engineering.<sup>20</sup> Both the government and military soon embraced the Royal Society’s wealth of

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<sup>14</sup> LHCMA, Papers of Major-General Sir C. H. Foulkes, 6/61, Draft Chapter for History of RE, n.d.

<sup>15</sup> LHCMA, Foulkes Papers, 6/37, History of the Central Laboratory, by Lt-Col W. Watson, n.d.

<sup>16</sup> C. H. Foulkes, *Gas! The Story of The Special Brigade* (London: William Blackwood and Sons, 1934), p. 37; IWM, Papers of Lieutenant-Colonel S. J. M. Auld, 75/101/1, Extract from Royal Commission on Awards to Inventors: Claim for the Invention of the Impregnating Material of the PH-Anti-Gas Helmet’, n.d.

<sup>17</sup> M. Girard, *A Strange and Formidable Weapon: British Responses to World War I Poison Gas* (Lincoln, NE: University of Nebraska Press, 2008), p. 81.

<sup>18</sup> R. Macleod, *Archibald Liversidge, FRS: Imperial Science under the Southern Cross* (Sydney, NSW: Sydney University Press, 2009), p. 399.

<sup>19</sup> K. Moore, ‘The Royal Society’s War Committee on Engineering, 1914-19’, *Notes and Records of the Royal Society* 62 (2008), p. 315.

<sup>20</sup> A food committee was added in 1916.

experience, incorporating a number of its members into the newly formed Ministry of Munitions in May 1915. As Marion Girard has argued, the administration required for chemical weapons research in Britain was rapidly established.<sup>21</sup> On the Western Front, Colonel Charles Foulkes, a regular RE officer, had been appointed Gas Advisor to GHQ and given ‘practically a free hand’ to organise and train the gas troops which eventually became the Special Brigade.<sup>22</sup> By February 1916, the chemical warfare service had its own distinct command structure. Brigadier-General Henry Thuillier became Director of Gas Services at GHQ, while Foulkes continued to direct the Special Brigade and offensive operations.<sup>23</sup> Soon enough, gas had representation from Army down to division. Each divisional gas officer was given six NCOs to carry out anti-gas measures of which four were attached to brigades.<sup>24</sup>

The establishment of tunnelling companies also came in response to a German attack. However, their creation could have been proactive. Rawlinson had suggested the possibility of mining on 3 December 1914 – less than three weeks prior to the German army’s first use of mines near Givenchy.<sup>25</sup> Major Sir John Norton Griffiths, an MP, army officer, and civil engineer, had also raised the possibility independently of using miners for military purposes in mid-December 1914.<sup>26</sup> He argued that ‘coal miners and other underground workers should be specially enlisted for this purpose’ with ‘great stress... laid on the secrecy and silence with which professional “clay kickers” could work’.<sup>27</sup> The potential for proactive change was there. However, it took until the German gas attack on 20 December 1914 for this – now reactive – change to be realised. Following an interview with Kitchener, Norton Griffiths was despatched to France on 13 February 1915 to gain support for his tunnelling initiative. It took him only two

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<sup>21</sup> Girard, *Poison Gas*, pp. 80-88.

<sup>22</sup> LHCMA, Foulkes Papers, 6/61, Draft Chapter for History of RE, n.d.

<sup>23</sup> Palazzo, *Seeking Victory*, pp. 79-80.

<sup>24</sup> T. Cook, *No Place to Run: The Canadian Corps and Gas Warfare in the First World War* (Vancouver, BC: University of British Columbia Press, 1999), p. 257.

<sup>25</sup> Institution of Royal Engineers, *The Work of the Royal Engineers in the European War, 1914-19: Military Mining* (Chatham: W&J Mackay & Co., 1922), pp. 1-2.

<sup>26</sup> D. Finlayson, *Crumps and Camouflets: Australian Tunnelling Companies on the Western Front* (Newport, NSW: Big Sky Publishing, 2010), p. 8.

<sup>27</sup> Institution of Royal Engineers, *Military Mining*, pp. 1-2.



days before he was granted approval in principle to mine using the clay-kicking technique. The establishment of the tunnelling companies was drawn up in consultation with Brigadier-General Sir George Fowke (Engineer-in-Chief, BEF) in just a matter of hours.<sup>28</sup> In fact, just ten days after his initial interview with Kitchener, the sixty-six men who comprised Norton Griffiths' clay-kickers, along with a number of mining men transferred from front line regiments, had arrived in France to form the basis of the first tunnelling companies.<sup>29</sup> Like chemical warfare, mining was integrated into the command structure. In January 1916, Brigadier-General Robert Harvey, former assistant to Fowke, was appointed the BEF's Inspector of Mines at GHQ, while a Controller of Mines was appointed to each Army headquarters.<sup>30</sup>

Given its earlier support for IWT, why did the military fail to act upon Rawlinson and Norton Griffiths' initial requests? There is no simple answer, although the military's reluctance to admit stalemate cannot be overlooked. One also cannot discount Britain's general reluctance to develop and use 'ungentlemanly' or cowardly methods, such as gas and propaganda.<sup>31</sup> This reluctance is borne out by a telegram from Kitchener to French on the possibility of chemical retaliation. Kitchener refers to the Germans as 'degraded' and that 'these methods show to what depth of infamy our enemies will go in order to supplement their want of courage in facing our troops'.<sup>32</sup>

Both the Special Brigade and tunnelling companies were established in response to direct, external threats, yet the army also had to respond to internal threats relating to training. As we have seen, the Training Directorate had been established in January 1917, first under Solly-Flood and subsequently Bonham-Carter. The eventual establishment of the Inspectorate of Training at BEF GHQ on 3 July 1918 was envisaged for the purpose of relieving pressure on the existing Training Directorate. According to senior officers at GHQ, the training carried out

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<sup>28</sup> IWM, Papers of Lieutenant-General Sir G. Fowke, 12/31/1, Obituary in *REJ*, 1936.

<sup>29</sup> Finlayson, *Crumps and Camouflets*, *passim*.

<sup>30</sup> Institution of Royal Engineers, *History*, V, p. 470.

<sup>31</sup> P. Robinson, *Military Honour and the Conduct of War: From Ancient Greece to Iraq* (Abingdon: Routledge, 2006), p. 154.

<sup>32</sup> TNA, WO 142/240, Offensive chemical warfare prior to formation of Scientific Advisory Committee, Kitchener to French, 24 April 1915.

on the Western Front was ‘neither perfectly coordinative nor altogether evenly distributed’, resulting in the teaching of ‘different doctrine and different methods’ between commands.<sup>33</sup>

Bonham-Carter supported this view. He recalled that

... the progress in obtaining uniformity of training methods was not rapid enough and [that] I was not senior enough to carry the weight required to compel Army and Corps Schools to adopt similar methods. I recommended, therefore, that there should be appointed a general of high rank as Inspector General of Training, that my branch should be reduced and given the task only of executing the policy recommended by the Inspector General.<sup>34</sup>

The possibility of *ex post facto* justification cannot be ruled out, but the rationale was still strong enough for the War Office to sanction GHQ’s request for additional training machinery. That the Training Directorate was not shut down in July 1918 suggests that the Inspectorate was further, rather than new, machinery. It had ‘no executive functions’, but would ‘advise and assist in the preparation and revision of training manuals, instructions and syllabuses of training for issue by the General Staff at GHQ’, and in the ‘supervision and control of training establishments’.<sup>35</sup> The Directorate underwent limited change to accommodate the new Inspectorate; its BGGs was downgraded to a colonel who became the Assistant Director of Military Training; its staffing was reduced from eight to seven; and it was renamed by Dawnay as his ‘Training Branch’.<sup>36</sup> It still retained responsibility for the BEF’s training policy, tactical doctrine, and schools system. The Inspectorate’s responsibilities were intended to be complementary. It was to assist the Training Branch with its existing duties, whilst broadening the scope of GHQ’s influence in training matters.<sup>37</sup>

Whether change is proactive or reactive in nature, it requires the identification and appointment of individuals who are capable and empowered to implement it. Modern management theory

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<sup>33</sup> LHCMA, Papers of Field Marshal Sir A. A. Montgomery-Massingberd, Dawnay to Montgomery, 31 October 1918.

<sup>34</sup> CAC, Bonham-Carter Papers, BHCT 9/2, Autobiography, n.d., p. 24.

<sup>35</sup> IWM, Maxse Papers, 69/53/13 File 56, Haig to War Office, 16 June 1918.

<sup>36</sup> Geddes, ‘Solly-Flood’, p. 39.

<sup>37</sup> IWM, Maxse Papers, PP/MCR/C42, Haig to War Office, 16 June 1918.

describes these individuals as ‘change agents’ – people who have the skill and power to stimulate, facilitate, and coordinate change in an organisation.<sup>38</sup> They may be internal or external to the organisation, but, irrespective of background, they must be able to promote change throughout the organisation. In that respect, they require legitimacy, expertise, and organisational support to face and defeat inevitable resistance. This organisational support was particularly important. As Goya suggests, during the First World War, there were three categories of individuals that were essential to the promotion of change and innovation. First, there were the ‘experts’ – professionals such as the French flying ace, René Fonck. Secondly, there were ‘entrepreneurs’. These were the individuals who, although not innovators, were able to lead a project to a successful conclusion. In modern terms, they can be seen as facilitators. Dawnay, for example, would sit in this category for his work in promoting the Inspectorate and smoothing over organisational resistance. Finally, there were the ‘generals’. As Goya states, the generals had to simultaneously lead operations as well as manage adaptation.<sup>39</sup> They could be seen as the ‘benevolent protectors’ of the innovators.<sup>40</sup> They are the project sponsors. As Harkness and Hunzeker suggest, leaders foster adaptation by ‘creating a coherent vision and encouraging purposive action’.<sup>41</sup> Their prestige and support was often vital for an innovation to succeed. This reflects Rosen’s ideas on the reasons for military innovation, notably the role of ‘visionary’ senior military figures who, with their own strategies for innovation, create promotion pathways for their subordinates.<sup>42</sup> These high-ranking figures use their legitimacy and position within the organisation to protect these mid-level officers, enabling them to innovate.

The army had a number of avenues available to it for the identification of these change agents. It was positioned in the centre of a network where it could pull in expertise when

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<sup>38</sup> F. C. Lunenberg, ‘Managing Change: The Role of the Change Agent’, *International Journal of Management, Business, and Administration* 13 (1) (2010), p. 1.

<sup>39</sup> Goya, *La Chair*, pp. 204-207.

<sup>40</sup> *Ibid.*, p. 417.

<sup>41</sup> Harkness and Hunzeker, ‘Military Maladaptation’, p. 7.

<sup>42</sup> Rosen, *Winning the Next War*, pp. 134-143.

required, but conversely, it could also have individuals pushed on to it from outside. The first avenue - the pushing of individuals on to the army - was responsible for the appointment of transport experts, namely Sir Percy Girouard in 1914 and Geddes in 1916. Forced upon the army by Kitchener and Lloyd George respectively, their reception was not universally positive, despite the fact that they were experts in their field with pre-war experience of working in or with the military.

Unlike Geddes, Percy Girouard was not an ‘outsider’ to the military establishment. Graduating from the Royal Military College at Kingston in 1886 with a diploma in engineering, Girouard worked for two years on the engineering staff of the Canadian Pacific Railway before accepting a commission in the RE in 1888.<sup>43</sup> Seconded to the Egyptian army in 1896, he served as director of the Sudan Military Railway during Kitchener’s invasion of the Sudan. His construction of the railway bypassing the Nile cataracts made possible Kitchener’s victory over the Mahdi’s forces at Omdurman. His railway skills were so highly regarded that he became director of the South African Railways during the Boer War. Girouard compiled his experiences and lessons of that war into a multi-volume work entitled *History of the Railways during the War in South Africa, 1899-1902*. This work was a valuable educational tool for military officers on the ‘practical working of a great system of Railways on which an Army in the Field is dependent for all its supplies’.<sup>44</sup> It highlighted, *inter alia*, the importance of ‘the presence of experienced civilian railway engineers’, and to what extent ‘Military Control [of railways] is necessary and at what point it becomes harmful’.<sup>45</sup> Although Girouard left the military in 1907, he was hailed as ‘the greatest authority in the British Empire upon the use of railways in war’.<sup>46</sup>

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<sup>43</sup> John Flint, ‘Girouard, Sir (Édouard) Percy Cranwill (1867–1932)’, *Oxford Dictionary of National Biography*, Oxford University Press, 2004; online edn, May 2006 <http://www.oxforddnb.com/view/article/33415> [accessed 6 Nov 2013]. All biographical details are taken from this source unless otherwise noted.

<sup>44</sup> Anon., ‘Review of *Detailed History of the Railways in the South African War, 1899-1902*’, *Royal Engineers Journal* 2 (1) (1905), p. 135.

<sup>45</sup> *Ibid.*, p. 134.

<sup>46</sup> A. H. M. Kirke-Green, ‘Canada in Africa: Sir Percy Girouard, Neglected Colonial Governor’, *African Affairs* 83 (331) (1984), p. 237.

It is unsurprising that Kitchener called on his services to investigate the British and French transportation networks on the Western Front in October 1914.

Girouard's report challenged the status quo and highlighted the overlapping duties and general inefficiencies within the existing transport system.<sup>47</sup> The transportation network at that time aligned with guidelines found in *FSR*. The directorates governing supply and movement were not controlled by a single authority, but were responsible to both General Sir Ronald Maxwell (Quartermaster-General [QMG] in France) and Robertson.<sup>48</sup> Girouard recommended abandoning the structure laid out in *FSR* and aligning with the French system.<sup>49</sup> Unsurprisingly, his recommendations were criticised by senior officers. Major-General Sir Frederick Robb, former IGC in France, noted that Girouard's proposal was 'nothing new'.<sup>50</sup> General Sir John Cowans (QMG to the Forces) was far more critical:

In my opinion it would have been better if Sir P. Girouard had restricted himself to what he was told to do. He has far exceeded his instructions. He was not told to produce a scheme for uprooting organisations deliberately laid down after deep deliberation... The Regulations have been issued and acted upon and it is no time in the middle of a campaign to tinker with them.<sup>51</sup>

According to Cowans' biographers, Girouard's report 'appears to have been shelved'.<sup>52</sup>

Geddes fared little better at first. Upon reading the proposal for a transport investigation, Maxwell noted that:

It is not stated why the time has arrived to strengthen the transport arrangements of the BEF. So far as the work in France is concerned these arrangements have worked perfectly smoothly and efficiently: 1. In the ports; 2. On the railways and canals; 3. On the roads.<sup>53</sup>

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<sup>47</sup> TNA, WO 32/5144, Girouard Report – Report upon railway transport arrangements of the British army on the Continent, p. 7.

<sup>48</sup> Brown, *British Logistics*, pp. 48-55.

<sup>49</sup> TNA, WO 32/5144, Girouard Report, pp. 5-6.

<sup>50</sup> *Ibid.*, Memo by Major-General F. S. Robb on Girouard Report, n.d.

<sup>51</sup> *Ibid.*, Memo by Lt-Gen Sir J. S. Cowans, 27 October 1914.

<sup>52</sup> D. Chapman-Huston and O. Rutter, *General Sir John Cowans GCB GCMG: The Quartermaster-General of the Great War*, II (2 vols., London: Hutchinson, 1924), p. 229.

<sup>53</sup> Quoted in Phillips, 'Managing Armageddon', p. 191.

For Geddes, such a response was to be expected. He was aware that:

Officers who are responsible for the work out there will say – “Has the Army ever wanted for anything in these last two years of fighting?” My answer to that is that if the Army has not wanted for anything, it is because it has been a stationary Army... In the only place where we have made an advance, and not one involving great mileage, the road repair and the capacity of the roads are both matters of anxiety.<sup>54</sup>

Grievés describes Geddes’ initial reception at GHQ as ‘chilly’, while Haig recorded in his diary that Geddes was ‘afraid that the Inspector General of Communications resents his visit!’<sup>55</sup> Unsurprisingly, Geddes’ subsequent appointment as both Director-General of Military Railways at the War Office and Director-General of Transportation [DGT] for the BEF was met with ‘fierce opposition’, with Lloyd George accused of having ‘fluttered the military doves by this unconventional appointment’.<sup>56</sup> Both Stuart-Wortley and Maxwell threatened to resign from their positions.<sup>57</sup> However, Haig’s confidence in Geddes was ‘unshakeable’.<sup>58</sup> He was able to convince Maxwell that Geddes had not ‘been sent out by... Lloyd George to take over the duties which I had assigned to him [Maxwell]’.<sup>59</sup> Maxwell was happy with Haig’s assurances and instructed his directors to cease their criticisms of Geddes. It was this support from the very top of the army that paved the way for Geddes’ success.

The initial responses to both Girouard’s and Geddes’ reports suggest individual rather than organisational inertia. However, to focus on these individual responses overlooks the wider context, namely that Britain was the junior partner in the coalition at this point. Moreover, the army’s demands and needs changed over time. The decision to shelve much of Girouard’s report lay in the fact that many of his recommendations assumed that the stalemate of winter

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<sup>54</sup> Modern Records Centre, University of Warwick [MRC], Papers of Sir W. Guy Granet, MSS.191/3/3/4-13, Geddes to Lloyd George, 15 September 1916, p. 6.

<sup>55</sup> K. Grievés, *Sir Eric Geddes: Business and Government in War and Peace* (Manchester: Manchester University Press, 1989), p. 29; TNA, WO 256/12, Ts Diaries of Field Marshal Sir Douglas Haig, 24 August 1916.

<sup>56</sup> Quoted in Grievés, *Geddes*, pp. 30-31.

<sup>57</sup> TNA, WO 256/13, Haig Diaries, 30 October 1916.

<sup>58</sup> Grievés, *Geddes*, p. 32.

<sup>59</sup> TNA, WO 256/13, Haig Diaries, 30 October 1916.

1914 was an anomaly. Although certain generals expected a long war, there was little impetus to overhaul existing procedures when they appeared to be functioning reasonably well.

The government's appointment of both Girouard and Geddes to audit transport shows that attempts were made to force change on the army: the first attempt was largely unsuccessful; while the second succeeded despite initial opposition. However, the army was also capable of acknowledging when change was necessary. It was not beyond the army to recognise and request expertise that did not exist within its own organisation. This second avenue – that of acknowledging the need for expertise - is clear in the army's request for geologists, particularly hydrogeologists. The appointment of these individuals was entirely flexible based on each theatre's need. Not all of these men held military rank, nor were they all embedded within the military establishment.

In April 1915, Major-General William Liddell (Deputy Director of Works [DDW], BEF) wrote to the War Office requesting a geologist to advise on water supply. This request resulted in the appointment of Lieutenant William King.<sup>60</sup> King was a geologist with the Geological Survey of Great Britain, but had volunteered on the outbreak of war and was commissioned into the 7th Battalion Royal Welch Fusiliers.<sup>61</sup> Upon receiving Liddell's request, the Director of the Geological Survey, Sir Aubrey Strahan, nominated King to serve as a geologist to the BEF's Engineer-in-Chief. King proceeded overseas in June 1915.<sup>62</sup>

The appointment of King, along with the Australian geologists, Tannatt Edgeworth David and Loftus Hills, allowed for new, civilian procedures to take root within the army. These geologists developed new pre-printed forms and a card index for information on water bores. The forms were 'foolscap size and had spaces for details of the strata and pumping machinery,

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<sup>60</sup> Institution of Royal Engineers, *The Work of the RE in the European War, 1914-19: Geological Work on the Western Front* (Chatham: W&J McKay, 1922), pp. 7-8.

<sup>61</sup> E. P. F. Rose, 'Groundwater as a military resource: pioneering British military well boring and hydrogeology in World War 1', in E. P. F. Rose and J. D. Mather (eds.), *Military Aspects of Hydrogeology: Geological Society Special Publication 362* (London: Geological Society, 2012), pp. 53-54.

<sup>62</sup> W. B. R. King, 'Geological Work on the Western Front' *The Geographical Journal* 54 (4) (1919), p. 201.

output etc'.<sup>63</sup> These forms were received from the various Armies and the information entered on to cards and kept in the card index. Information was, therefore, easily accessible whenever required.<sup>64</sup> In addition to this, a map of 1/250,000 scale, with the position of each bore marked by a small circle and the place name by which the bore was known, was also kept up to date so that the map acted as a cross index to the cards.

At the time of King's appointment to the BEF, the MEF had also requested a water supply expert to work with its engineers at Gallipoli. The War Office despatched Arthur Beeby Thompson – a 'water engineer of considerable experience' – who provided advice to the army from 1915-1919.<sup>65</sup> Upon his arrival at Gallipoli, Beeby Thompson noted that the problems of water supply occurred because 'little or nothing is known of the geology or hydrography'.<sup>66</sup> Recounting his experience on the peninsula, Beeby Thompson noted that hand-worked tools had been considered adequate when drilling for water and that 'no REs had been trained in the working of mechanical drilling plants of modern design'.<sup>67</sup> Unlike King, Beeby Thompson did not possess a military rank. It was felt that his status as a 'consultant civilian engineer' would give greater weight to his recommendations.<sup>68</sup> His lack of military rank did not appear to impact on his suggestions either. In a letter to the War Office, Brigadier-General Alain Joly de Lotbinière (Director of Works, MEF) wrote that 'the water supply at Imbros is in a very fair condition', and that 'Mr Beeby Thompson... has every hope that... ample water supply will be obtained from deep wells at Imbros'.<sup>69</sup> Following the evacuation from Gallipoli, Beeby Thompson's expertise was secured by the BSF from January 1916 onwards where, once again, he was employed as an engineer without military rank, working directly to Brigadier-General

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<sup>63</sup> Institution of Royal Engineers, *Geological Work*, pp. 18-19.

<sup>64</sup> King, 'Geological Work', p. 213.

<sup>65</sup> Rose, 'Groundwater', pp. 57-59. In addition to Beeby Thompson, the Geological Survey of Great Britain also despatched three of its members for 'geological work in Gallipoli'. See TNA, DSIR 9/17, 'Work of the Geological Survey of Great Britain and the Museum of Practical Geology', 29 June 1917.

<sup>66</sup> Quoted in Rose, 'Groundwater', pp. 57-59.

<sup>67</sup> A. Beeby Thompson, *Emergency Water Supplies* (London: Crosby Lockwood & Son, 1924), p. 110.

<sup>68</sup> Falls, *Military Operations: Macedonia*, I, p. 286.

<sup>69</sup> TNA, WO 161/32, Correspondence of Brigadier-General E. M. Paul to DFW WO, Joly de Lotbinière to DFW, 29 August 1915.



Hubert Livingstone (Chief Engineer, BSF). Beeby Thompson's influence within the BSF was far reaching with boreholes sunk in the base area, as well as on the Lines of Communication and in corps areas. He also ensured that lorries were fitted with suitable personnel and equipment to ensure plentiful water supply during the BSF's final advance in 1918.<sup>70</sup>

Much like the other expeditionary forces, the EEF also realised the need for geological expertise. This was secured by two means: first, through the Geological Survey of Egypt, and secondly, through a request to the War Office. As both GHQ EEF and the Geological Survey were located in Cairo, the army could easily call upon the services of this well-established organisation to advise on water supply. Dr William Hume, the Director of the Survey, was placed 'at the disposal of the military authorities' where he offered continuous advice to the force between 1915-1917.<sup>71</sup> In addition to Hume's geological expertise, the War Office despatched Edward Sandeman – a consulting civil engineer specialising in water supply – following a request from the EEF.<sup>72</sup> The advice of both Hume and Sandeman led Major-General Henry Wright (Engineer-in-Chief, EEF) to remark in November 1918 that when 'dealing with water supply the services of an expert geologist have been necessary'.<sup>73</sup> Like Beeby Thompson, neither Hume nor Sandeman held military rank. Instead, they remained in advisory appointments, offering information and assistance that was communicated at a high level.

The army's policy towards these appointments was flexible. As we have seen previously, the army could not pursue a 'one size fits all' approach across all theatres. On the Western Front, where conflict was intense, it was deemed necessary for King to serve in uniform with military rank at GHQ. However, at Gallipoli and Salonika, where infrastructure was less developed, the advisor was embedded within the engineering branch at GHQ without military rank. In Palestine, where the hostile, desert terrain exacerbated infrastructure problems, both Hume and Sandeman provided advice to GHQ when required, but they were not embedded

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<sup>70</sup> Institution of Royal Engineers, *History*, VI, pp. 110-111.

<sup>71</sup> TNA, WO 161/67, Notes Regarding Water Supply in the Gaza and Wadi El Ghuzze Area by W. F. Hume, Hume to Wright, n.d. (c. July 1917).

<sup>72</sup> TNA, WO 161/65, Report on Water Supply to the Army in Egypt and Palestine, 1914-1918, n.d., p. 11.

<sup>73</sup> *Ibid.*, Wright to Allanson, 12 November 1918; Institution of Royal Engineers, *Geological Work*, p. 68.

within the military organisation.<sup>74</sup> The army clearly acknowledged the need for hydrogeological expertise within the majority of its operational theatres and requested these experts accordingly. The appointment and subsequent success of these experts resulted from the legitimacy of their professional background regardless of whether they were in uniform or not.<sup>75</sup>

As well as identifying required expertise from outside the military establishment, both the army and the War Office were subject to direct approaches from individuals or institutions that were eager to offer suggestions or innovations. This third avenue enabled the military to draw on a wide range of expertise, particularly from the learned societies. In September 1914, the councils of both the Institution of Electrical Engineers [IEE] and the Institution of Mechanical Engineers [IMechE] had forwarded 'several offers of assistance' to the War Office.<sup>76</sup> The IEE also noted that offers of service had been placed at the disposal of both the Admiralty and the RFC in particular.<sup>77</sup> The military took advantage of these offers by engaging individuals directly, or drawing on the societies' combined expertise. In the case of the former, the IMechE was approached by Major-General Sir George Scott-Moncrieff (Director of Fortifications and Works [DFW], 1911-1918) for a 'list of Mechanical Engineers with whom the War Office might communicate as occasion arise in connection with problems arising out of the War'.<sup>78</sup> Where general expertise was required, the IMechE often printed announcements in its informal wartime circular asking for 'well thought out solutions' to problems that had arisen from the war.<sup>79</sup> These problems included 'an arrangement for destroying barbed-wire entanglements', 'an arrangement for clearing mines from the products of the explosion of the mine', and 'some light and portable form of protection against burning liquids'.<sup>80</sup> At the council

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<sup>74</sup> Rose, 'Groundwater', p. 70.

<sup>75</sup> TNA, WO 158/608, Report by Mr Sandeman on Water Supply in Egypt and Palestine, GHQ EEF to Wright, 12 December 1916.

<sup>76</sup> Institution of Mechanical Engineers Archive [IMECHEA], Council Minutes, 18 September 1914, p. 87; Institution of Engineering and Technology Archive [IETA], IET/ORG/2/1/9, Institution of Electrical Engineers [IEE] Council Minutes, 4 September 1914.

<sup>77</sup> IETA, IET/ORG/2/1/9, IEE Council Minutes, 4 September 1914.

<sup>78</sup> IMECHEA, Council Minutes, 16 July 1915, p. 76.

<sup>79</sup> *Ibid.*

<sup>80</sup> IMECHEA, IMechE Journal, Part 1, June 1915, p. 8.

meeting on 16 July 1915, some nine letters had been received in response to these problems and forwarded to the War Office. By engaging with these learned societies, the military was able to access relevant expertise in a timely fashion.

The significant numbers of learned society members volunteering for military service bolstered the support offered to the government. In April 1915, the IMechE reported that ‘not less than 400 members’ were serving ‘in one capacity or another in HM Naval or Military Services’,<sup>81</sup> while, as of March 1915, 139 members of the Institution of Automobile Engineers [IAE] were serving in the army or navy.<sup>82</sup> For the IAE, this represented just over 15 per cent of its total membership.<sup>83</sup> Indeed, its President-Elect, President, and immediate past President were all appointed to senior positions within the Army Service Corps’ [ASC] Motor Transport branch.<sup>84</sup> In August 1915, through its Conjoint Board of Scientific Societies, the Royal Society published a list of ‘scientific and technical men on active service’. This list was broken down into four categories: chemists, civil and mechanical engineers, electrical engineers, and physicists and meteorologists. It revealed that 904 eminent scientific men were serving in the army by August 1915, as shown in Figure 1. Of this number, 230 men were serving in the RE with electrical engineers making up 57 per cent of this figure. Chemists were seconded from their original units to the RE to serve in the Special Brigade, which partly explains the high number of chemists serving in the infantry. Of the 208 chemists listed as infantry, forty-six of them would go on to serve as officers in the Special Brigade during the war.<sup>85</sup>

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<sup>81</sup> W. Cawthorne Unwin, ‘Address by the President’, *Proceedings of the Institution of Mechanical Engineers [PIME]* 88 (1915), p. 299.

<sup>82</sup> ‘Annual Report and Accounts’, *Proceedings of the Institution of Automobile Engineers [PIAE]* 9 (1915), p. 520.

<sup>83</sup> Total membership of IAE on 10 March 1915 totalled 903.

<sup>84</sup> ‘Annual Report and Accounts’, pp. 519-520.

<sup>85</sup> TNA, WO 142/334, Roll of RE Special Brigade Officers, 1919.

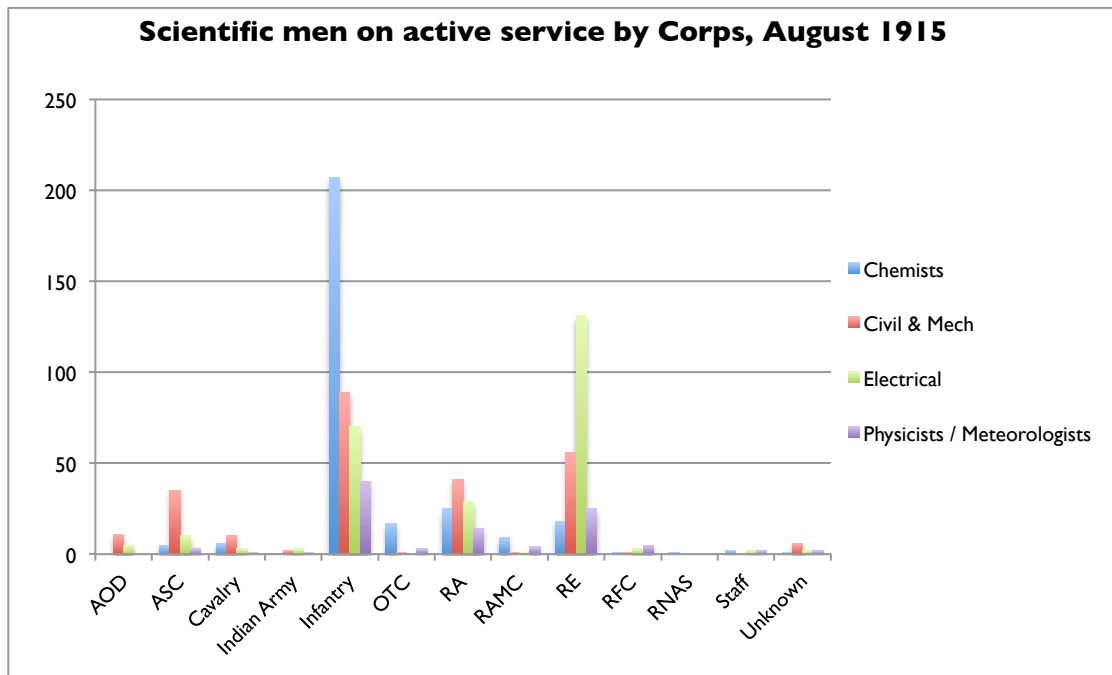


Figure 1: Breakdown of Royal Society's list of scientific and technical men by corps<sup>86</sup>

The flood of expertise into the army contributed to the fourth avenue for securing talent: the identification of individuals, civilian and military, from within the military organisation. As later chapters show, the army moved from an ad hoc to a systematic process for identifying and transferring skilled personnel. However, individuals often fell through the net. Lieutenant-Colonel Vivian Fergusson recalled meeting a 2nd Lieutenant in the Royal Field Artillery who, in civilian life, was a concrete expert. In August 1915, tests were being carried out on the effectiveness of artillery fire on concrete dugouts. Fergusson recalled how this officer was:

... very plain spoken about the experiments and said the man who built the concrete posts didn't know anything about concrete. The man who did build the thing is a Sapper General on the Corps staff - so I rang up Corps Intelligence and told them about our friend as there was not use my discussing it with him. It's rather absurd - this fellow is years older than I am and has a large engineering business in Canada and is now a Second Lieutenant in the Field Art[iller]y.<sup>87</sup>

<sup>86</sup> TNA, DSIR 10/125, Royal Society: List of Scientific and Technical Men on Active Service, August 1915.

<sup>87</sup> IWM, Papers of Lieutenant-Colonel V. M. Fergusson, PP/MCR/11, Fergusson to Dulce [D'Ewes] Allen, 19 August 1915.

Most of the problems centred on the army's unawareness of its civilian soldiers' skills. In this respect, the army was forced to rely on the learned societies, trade unions, or, indeed, employers themselves to provide information that could help identify the skill sets of these specialists. The IMechE, for example, noted in May 1918 that:

In connexion with the methods adopted in recent years to introduce members where their services might be required... nearly 400 standard cards of membership had been issued since 1907; and... epitomes of the professional training and experience of 310 members has been laid before 16 Government Departments periodically during the War... many of these epitomes had been sent to 16 other Departments at their request.<sup>88</sup>

Chemists who had enlisted in infantry regiments, for example, were 'requested to volunteer for a change of work' and encouraged to transfer to the Special Brigade.<sup>89</sup> This request was given greater impetus when the War Office 'began to receive from universities and colleges... the names of those students who had a knowledge of chemistry. As the lists came in, instructions were sent to the COs of their units, transferring them without question since they were designated "chemists"'.<sup>90</sup> Unsurprisingly, it was not always 'without question'. Infantry COs were loth to part with good men. However, the importance of gas work was such that Robertson himself expedited the transfer of infantrymen with a series of 'peremptory orders'.<sup>91</sup> Douglas Edwardes-Ker, a pre-war chemist who became Assistant Director of Gas Services at GHQ, recalled his former manager at Brunner Mond advising him to transfer to the RE to help 'dash the Germans' in gas warfare. On the outbreak of war, Edwardes-Ker had enlisted as a private in the 5th Battalion East Kent Regiment, but upon his arrival in France, he was commissioned and immediately seconded to the RE owing to his chemical expertise.<sup>92</sup>

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<sup>88</sup> IMECHEA, Council Minutes, 31 May 1918, p. 53.

<sup>89</sup> IWM, Papers of M. S. Fox, 76/49/1, Ts Memoir, n.d., Chapter 1.

<sup>90</sup> IWM, Fox Papers, 76/49/1, Ts Memoir, n.d., Chapter 1; R. Macleod, 'The Chemists go to War: The Mobilization of Civilian Chemists and the British War Effort, 1914-1918', *Annals of Science* 50 (5) (1993), p. 466; Girard, *Poison Gas*, pp. 87-88.

<sup>91</sup> Foulkes, *Gas!*, p. 54.

<sup>92</sup> IWM, Interview with Douglas Edwardes-Ker, 24874, 1975.

The identification and transfer of individuals with necessary skills was not limited to civilian soldiers. The establishment of the Inspectorate of Training, for example, required the services of a 'senior officer' with 'full experience of war in this theatre [the Western Front]'.<sup>93</sup> The appointment of General Sir Ivor Maxse to the position of Inspector-General of Training [IGT] had been in discussion since mid-April 1918.<sup>94</sup> Maxse was acutely aware that some individuals viewed his appointment as an olive branch after his supposed 'stellenbosching' following the German spring offensive.<sup>95</sup> While it is difficult to refute this, Maxse also had a proven track record as a trainer of troops, as someone willing to speak his mind, and, at times, challenge the status quo. This was underscored by his access to strong journalistic contacts through his brother, Leo. Ivor Maxse's publication, *Hints on Training*, published during his time as GOC XVIII Corps, was highly influential. Its reach extended beyond both XVIII Corps and the Western Front itself. Writing to Maxse in September 1918, Major-General Robert Whigham (GOC 62nd Division) praised *Hints on Training*, noting that 'I obtained copies of them for issue down to Platoon commanders in the 59th Division - which I have just been reorganising - and I find they are also being extensively used in this division [the 62nd Division]'.<sup>96</sup> Major-General Sir Archibald Macdonnell (GOC 1st Canadian Division) wrote 'I will never forget the way I pounced upon and devoured your *Hints on Training* and how eagerly my Brigadiers and Battalion commanders followed it up'.<sup>97</sup> The publication was also used by formations in Italy. The proceedings of the 23rd Division's conference on 1 February 1918 record that 'Battalions to reorganize their sections and platoons on a permanent basis. The instructions on training by Lt-Gen Maxse, commanding 18th Corps... will be carried out'.<sup>98</sup> Further endorsement from Italy came from Shoubridge in June 1918. Shoubridge, GOC 7th Division and one of Maxse's former brigadiers in the 18th Division, wrote that:

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<sup>93</sup> IWM, Maxse Papers, PP/MCR/C42 File 53, Haig to War Office, 16 June 1918.

<sup>94</sup> IWM, Dawnay Papers, 69/21/3, Dawnay to wife, 19 April 1918.

<sup>95</sup> J. Baynes, *Far From a Donkey: The Life of General Sir Ivor Maxse* (London: Brassey's, 1995), p. 210.

<sup>96</sup> IWM, Maxse Papers, PP/MCR/C42 File 60, Wigham to Maxse, 7 September 1918.

<sup>97</sup> *Ibid.*, Macdonnell to Maxse, 1 February 1919.

<sup>98</sup> TNA, WO 95/4229, 23rd Division GS War Diary, Proceedings of Divisional Conference, 1 February 1918.

*Hints on Training* are most popular and I am getting many applications from company commanders for more copies. My prestige as to training has gone from 1000 to 0 as they now realise more fully where I learnt most of the things I have tried to teach them!! Do you think you could send me another 300 copies so as to allow of each platoon commander having one and to also have sufficient copies for my Brigade schools etc?<sup>99</sup>

Maxse had a reputation as someone who could effect change through his own persuasiveness coupled with support from the top of the army. The support he received from entrepreneurial individuals such as Haig and Dawnay was invaluable. Much like the French army, the British army had adapted itself into a modern organisation that ‘understood the feelings and ideas of the men in the field’, and had ‘organised the spreading of ideas via a coherent training structure’.<sup>100</sup> Maxse was also given a relatively free hand when choosing his staff. Major John Evetts, a GSO2 in the Inspectorate, recalled that Maxse ‘picked these people himself’, and that such men were ‘forward thinking’.<sup>101</sup> According to Basil Liddell Hart, Maxse was a ‘red hot enthusiast for efficiency who would sack his best friend if his slackness or stupidity imperilled the army’.<sup>102</sup> It was to be expected that the men he recruited were intelligent in training matters. Some of these working relationships endured after the war. Maxse, Evetts, and Winston Dugan, one of the Inspectorate’s Assistant Inspectors of Training [AIT], for example, maintained a close relationship in the 1920s. Evetts served as Maxse’s GSO3, while Dugan was commissioned to write a new version of *Infantry Training* with Maxse’s support.<sup>103</sup> For Evetts, there were two particular men – Maxse aside – who stood out in the Inspectorate: Major Robert Barrington-Ward and Lieutenant-Colonel Joseph Levey.

According to John Baynes, Maxse recruited Barrington-Ward, a BM in the XVIII Corps, after he ‘spotted him in [the] Flanders fighting’.<sup>104</sup> On the outbreak of war, Barrington-

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<sup>99</sup> IWM, Maxse Papers, PP/MCR/C42 File 44, Shoubridge to Maxse, 21 June 1918.

<sup>100</sup> Goya, *La Chair*, p. 417.

<sup>101</sup> Liddle Collection, University of Leeds [LC], Papers of Sir J. F. Evetts, Liddle/WW1/GS/0533, Tape 588, Transcript of Interview with Evetts, July 1979.

<sup>102</sup> LHCMA, Papers of Captain Sir B. H. Liddell Hart, 7/1920/32, ‘Some Personal Impressions’, 1929.

<sup>103</sup> LHCMA, Liddell Hart Papers, 7/1920/38a, Ms Autobiography, n.d. [c. 1920].

<sup>104</sup> Baynes, *Maxse*, pp. 211-212.

Ward was a journalist at *The Times*. Like Evetts, he was a GSO2 in the Inspectorate and was, according to the former, ‘the most important man’ to the Inspectorate. His journalistic skills were put to great use in the production of training pamphlets and he was seen as ‘the keystone of all the leaflet production’.<sup>105</sup> His role echoed that of fellow *Times* employee, Edward Grigg. Having also served under Maxse in the XVIII Corps, Grigg was appointed to GSO2 in the operations staff (Oa) at GHQ from September-December 1917. He was responsible for the writing of *SS198 Tactical Instructions for the Offensive of 1918*.<sup>106</sup> Owing to their journalist careers, both Barrington-Ward and Grigg were able to present information in a readable and succinct manner. This made them particularly valuable in the production of training pamphlets.

Also known to Maxse from the XVIII Corps and as a fellow guardsman, Levey was appointed as Deputy AIT responsible for infantry training.<sup>107</sup> According to Evetts, Levey was one of the brains behind the working of the Inspectorate. In 1915, as adjutant to the Royal Naval Division’s training staff, Levey had authored two privately published training pamphlets dealing with fire instruction and landscape targets.<sup>108</sup> The latter presaged Levey’s work at the Inspectorate with its focus on ‘Progressive Stages of Training’, including sections on the explanation of the object, vocabulary, visual training, indications of targets, and simple tactical exercises.<sup>109</sup> This process also foreshadowed Maxse’s own training dictum of ‘explanation, demonstration, execution, battle’.<sup>110</sup>

Though it had the potential for innovation, there are disputes as to the Inspectorate’s impact and influence. These centre on the limited time available to the Inspectorate from its establishment to the Armistice, as well as its attempts at ‘top down standardisation’, which went

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<sup>105</sup> LC, Evetts Papers, Liddle/WW1/GS/0533, Tape 526, July 1978, and Tape 588, July 1979.

<sup>106</sup> Beach, ‘General Staff’, pp. 474-475.

<sup>107</sup> IWM, Maxse Papers, PP/MCR/C42 File 43, Programme of Senior Officers’ Training Conference, 17-20 February 1918.

<sup>108</sup> These pamphlets were entitled *Five Instructional Lectures to Regimental Officers on the Western Campaign* and *What to Teach on Landscape Targets*.

<sup>109</sup> J. H. Levey, *What To Teach on Landscape Targets* (London: Forster Groom & Co, 1915), p. 1.

<sup>110</sup> LC, Evetts Papers, Liddle/WW1/GS/0533, Tape 588, July 1979. According to Baynes, the dictum was ‘explanation, demonstration, executive, repetition’. See Baynes, *Maxse*, p. 212.



against the army's mantra of devolved command.<sup>111</sup> Evetts himself noted that the training programme 'couldn't have been tested. There was no time. The Armistice came too quickly'.<sup>112</sup> Boff, however, suggests that it was Maxse's top-down efforts that aroused considerable distrust and, therefore, hampered its impact.<sup>113</sup> Although there is evidence to support this, there is also evidence to suggest that the ethos of the Inspectorate aligned with that of the wider army and found support within the organisation.

From the outset, Maxse and his team were aware of the advisory nature of their role. In a lecture on artillery employment, Major-General Sir Herbert Uniacke, Deputy Inspector of Training and former MGRA to the Fifth Army, noted that the Inspectorate had 'been charged with the duty of establishing a fixed *doctrine* and with the dissemination of that doctrine. Unfortunately, we have not been invested with executive authority but told to exercise our powers of persuasion'.<sup>114</sup> Evetts recalled how Maxse:

... always gave me the impression of having a very great amount of power and I am quite sure that if he got up against anybody who was really bloodyminded and wasn't accepting of that sort [then] he could have gone to Haig and had him removed... but he didn't because he was one of those fellows who could talk a man around... he would get hold of somebody who was anti these [*sic.*] organisation and walk away with him and just convert him.<sup>115</sup>

Within the Inspectorate, Maxse was able to engender a culture of innovation. However, this was not an isolated enclave. Throughout the army, there were numerous innovators who were identified and subsequently moved into positions of greater influence – often heading up training schools. Following his success as GSO1 to the 7th Division, Bonham-Carter, for example, was chosen to run GHQ's senior staff school at Hesdin in October 1916. His autobiography recalls some of the administrative improvements he implemented in the 7th

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<sup>111</sup> Geddes, 'Solly-Flood', pp. 47-48; Boff, *Winning and Losing*, pp. 66-67.

<sup>112</sup> LC, Evetts Papers, Liddle/WW1/GS/0533, Tape 588, July 1979. See also Baynes, *Maxse*, p. 214.

<sup>113</sup> Boff, *Winning and Losing*, pp. 66-67.

<sup>114</sup> RAI, Papers of Lieutenant-General Sir H. C. C. Uniacke, MD 1160/2/11, Lecture on Artillery Employment, n.d. (c. July 1918). Original emphasis.

<sup>115</sup> LC, Evetts Papers, Liddle/WW1/GS/0533, Tape 588, July 1979.

Division, notably the issuing of ‘Instructions for Future Operations’, which ‘dealt with every conceivable subject and detail, both administrative and operational’.<sup>116</sup>

After proving his worth as an artillery brigadier in the 7th Division, Tudor was appointed as commandant to Third Army’s senior officers’ school in January 1916. Having acknowledged the importance of smoke in early 1915, Tudor built on this interest during his time at the school. He recalled gathering ‘the heads of the Survey, Ordnance and others to come and lecture and the discussions I had with these top officers were of great value to me. With Ordnance I went into the question of smoke-shell and was told that it was perfectly feasible’.<sup>117</sup> Upon completing his tenure as commandant, Tudor was appointed to command the artillery in the 9th Division where he further developed the use of smoke with the help of Major-General Sir William Furse, former GOC 9th Division and then Master-General of the Ordnance [MGO] at the War Office. An artilleryman and fellow advocate of smoke, Furse was deemed a ‘considerable technologist and innovator’, which arguably led to his promotion to MGO in December 1916.<sup>118</sup> Tudor benefitted from Furse’s patronage and his willingness to ‘send to us... many badly needed weapons... such was the result of appointing a man of vision and energy, who knew from personal experience what was wanted at the front, to such a vital post’.<sup>119</sup>

The different avenues available to the army for identifying and appointing individuals highlight the complexity of the change process. They also show that the army was capable of responsive action, acknowledging when it needed external expertise, but also its willingness to draw on the latent knowledge from within its own organisation. The process of change was far from smooth and, despite having some of the best minds at its disposal, the army was still a human organisation. The appointment of individuals into positions where they could effect change, or challenge the status quo was not without its difficulties.

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<sup>116</sup> CAC, Bonham-Carter Papers, BHCT 9/2, Autobiography, n.d., pp. 9, 24.

<sup>117</sup> RAI, Tudor Papers, MD 1167, Ts Memoir, n.d., Entries on 14 May 1915 and 7 January 1916.

<sup>118</sup> J. P. Harris, *Men, Ideas, and Tanks: British Military Thought and Armoured Forces, 1903-1939* (Manchester: Manchester University Press, 1995), p. 131.

<sup>119</sup> RAI, Tudor Papers, MD 1167, Ts Memoir, n.d., Entry on 31 December 1916.

Efforts to enact change often run into some form of human resistance. This is a natural response to a process that is associated with uncertainty and a move from the known to the unknown. According to modern theorists John Kotter and Leonard Schlesinger, there are four common reasons why individuals resist change. These are: a desire not to lose something of value, a misunderstanding of the change and its implications, a belief that change does not make sense for the organisation, and a low tolerance for change.<sup>120</sup> In addition to these individual barriers, there are also strong organisational and social forces that can hinder change, such as group norms or organisational culture, institutional memory of prior failures, along with an organisation's own regulations and procedures that may limit the flexibility to try new approaches.<sup>121</sup> A number of these barriers were obvious after the appointment of individuals such as Geddes and Maxse. Certainly, resistance was not limited to civilian appointments. It applied equally to appointments from within the immediate military organisation.

Though, as later chapters show, there was a long-standing relationship between the civilian and military spheres, there was, at first, uncertainty over the appointment of civilians to positions of authority. This was partly due to their 'otherness' and position outside the military hierarchy, but also because, as outlined above, some of these appointments were pushed on to the military. Writing to General Sir Charles Monro in December 1917, Robertson recalled that 'we... at first regarded with suspicion the setting up of these transportation people'.<sup>122</sup> His recollection supports Sam Fay's concerns when replacing Stuart-Wortley as Director of Movements at the War Office. Stuart-Wortley had been particularly antagonistic towards what he perceived to be civilian encroachment and his replacement was not viewed favourably. Fay recalled how Cowans, a champion of civilian expertise, but a fervent supporter of Stuart-Wortley, was particularly vociferous:

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<sup>120</sup> J. P. Kotter and L. A. Schlesinger, 'Choosing Strategies for Change', *Harvard Business Review* (Jul-Aug 2008), p. 3.

<sup>121</sup> A. C. Lewis and M. Grosser, 'The Change Game: An Experiential Exercise Demonstrating Barriers to Change', *Journal of Management Education* 36 (5) (2012), p. 671.

<sup>122</sup> LHCMA, Robertson Papers, 8/183, Robertson to Monro, 10 December 1917.

... he was angry and called me a damn fool. He said I could not carry on the job, that it was a military post that the tentacles of the Director of Movements were all over the War Office... He reminded me that he had held the position ten years before Stuart-Wortley, and knew something about it.<sup>123</sup>

There was obvious sympathy for Stuart-Wortley, and, as Fay found out, a 'resentment at the surrender to a civilian of a recognised military position... for a short time I had to bear the brunt of unhelpfulness'.<sup>124</sup> Although Fay was an outsider to the military organisation, he still had contacts within the War Office, notably Robertson, who he had known during the Boer War. Fay's appointment had aroused suspicion in Robertson also, but, unlike Cowans, 'he [Robertson] never expressed it, on the contrary, he welcomed me straight away'.<sup>125</sup>

Even citizen soldiers involved in operations had to overcome barriers when challenging the status quo. Major Henry Hemming, for example, was appointed to GHQ to coordinate flash spotting across the various Armies on the Western Front. Before the war, Hemming was a Canadian engineering student, studying on a scholarship in Paris. Upon the outbreak of war, he joined the British army, obtaining a commission in the 12th Battalion Duke of Wellington's Regiment. He was soon appointed to the artillery staff of the 18th Division, which, as he noted in his memoirs, had 'remarkable consequences'. Hemming's promotion from junior officer on a divisional artillery staff to advisor on flash spotting at GHQ highlights the importance of informal networks and the army's promotion of innovation.<sup>126</sup> According to Hemming, his appointment was due to a spontaneous visit by a divisional staff officer:

... I heard a voice outside calling, "I say, can I come in?... Just wanted to have a look at the jolly old Hun"... and then seeing my alidade he said, "I say, what's that wonderful gadget? No, don't tell me, I wouldn't understand". I explained that it was to take bearings on the flashes of the enemy guns... "How perfectly marvellous," he said, and then was gone [...] Two days after the visit by the Hon. Freddie, I got a note from Brigadier Stone CRA, saying that the 18th Division had been ordered to send an officer to Third Army HQ to attend a course on flash spotting.<sup>127</sup>

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<sup>123</sup> S. Fay, *The War Office at War* (London: Hutchinson, 1937), p. 26.

<sup>124</sup> *Ibid.*, p. 40.

<sup>125</sup> *Ibid.*

<sup>126</sup> Foley, 'Dumb Donkeys', p. 293.

<sup>127</sup> IWM, Papers of Lieutenant-Colonel H. H. Hemming, PP/MCR/155, Ts memoir, n.d., pp. 33-34.

This course brought him into contact with Colonel Harold Winterbotham, a regular RE officer, who nurtured Hemming's ideas and career. In this respect, Winterbotham typified Rosen's concept of the senior officer as innovator. He supported and pushed forward key officers such as Hemming, whilst receiving the backing of senior individuals such as Haig, Rawlinson, and Allenby.

Working closely with the 1915 Nobel Prize winner, Lieutenant Lawrence Bragg, and his sound ranging sections, Hemming held a conference for flash spotting officers to share best practice and knowledge. Although he had support from the regular RE officers commanding the Field Survey Battalions, he thought the conference a 'great mistake':

The first clash occurred over [Captain John] Coburn's graphs... I asked him if he would explain the use of the graphs to the whole conference... He replied that he had designed the graphs for his own group, and that he did not care a damn whether the other groups used them or not. I then asked if he would draw up instructions for their use. He said he was much too busy... I could damn well write them myself.<sup>128</sup>

Hemming's initial attempt at instigating change through the medium of knowledge sharing was unsuccessful. He admitted that his 'position was weak and they all knew it'.<sup>129</sup> To win them over, he realised that he needed to be 'pretty humble', which would involve him visiting each group individually, as well as sitting with officers in their observation posts at night.<sup>130</sup> According to Bidwell and Graham, Hemming had experienced such resistance before. They recount how a Royal Artillery brigadier told Hemming that 'you damned surveyors with your co-ordinates and angles and all the rest, are taking all the fun out of war; in my day we galloped into action and got the first round off in thirty seconds'. Hemming had, apparently, been

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<sup>128</sup> *Ibid.*, pp. 97-99. Coburn commanded No. 6 Group in the 4th Field Survey Battalion.

<sup>129</sup> *Ibid.*

<sup>130</sup> L. Bragg, A. H. Dowson, and H. H. Hemming, *Artillery Survey in the First World War* (London: Field Survey Association, 1971), p. 21.

tempted to reply ‘Yes Sir! and you hit nothing with it except possibly the backs of your own infantry’.<sup>131</sup>

For some individuals, their latent expertise, coupled with high level support from politicians or senior military figures, ensured that change took root. However, aspects of their personality threatened to undermine their success. This was true for Brigadier-General Robert Anderson, a Sydney businessman appointed by Senator Sir George Pearce, the Australian Minister for Defence, to implement business practices at AIF Headquarters in London. Pearce’s confidence was well placed. Within two months of his arrival, Anderson had negotiated a complete financial readjustment with the War Office. Instead of attempting to account for every item of clothing, arms, equipment, and other goods supplied to AIF troops, a fixed rate per head was agreed upon.<sup>132</sup> Such was its success that the Canadian High Commissioner, Sir George Perley, wished to copy it for the CEF’s own administration.<sup>133</sup> When negotiating with the War Office’s financial experts, Anderson’s business mind was ‘invaluable’. Anderson also established the War Chest Club on Horseferry Road in August 1916. This club, modelled on the Anzac Hostel in Cairo, was for NCOs and other ranks [OR] to ‘secure meals and sleeping accommodation’ when in London.<sup>134</sup> His mind and drive were not in doubt. However, his personality and background threatened to undermine his efforts.

Impatient by nature and aggressive when thwarted, Anderson did little to endear himself to regular AIF officers. According to his biographer, Anderson distrusted regular officers who would ‘close up their ranks very solidly against the outsider, specially if that outsider possessed outstanding abilities’.<sup>135</sup> In a letter to Birdwood, Anderson admitted that, although he was

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<sup>131</sup> Bidwell and Graham, *Fire-Power*, p. 109.

<sup>132</sup> C. E. W. Bean, *The Official History of Australia in the War of 1914-1918: The Australian Imperial Force in France, 1916*, III (12 vols., Sydney, NSW: Angus and Robertson, 1941), p. 173.

<sup>133</sup> AWM, Papers of Brigadier-General R. M. Anderson, PR83/020, Anderson to Trumble, 30 November 1916.

<sup>134</sup> AWM, AWM25 1007/5, Correspondence relating to formation of AIF and War Chest Club, London, Anderson to Mrs Samuel, 14 August 1916; AWM, AWM25 721/78, Circular Memos – Organisation of AIF after Gallipoli, Circular Memo No. 28: Hostel in Cairo, 9 March 1916.

<sup>135</sup> G. P. Walsh, ‘Anderson, Sir Robert Murray (1865–1940)’, *Australian Dictionary of Biography*, National Centre of Biography, Australian National University,

prepared to prioritise permanent soldiers for promotions, ‘the soldier has not been nearly so good as other men alongside available’.<sup>136</sup> Correspondence between regular AIF officers suggests that Anderson was an annoyance to be tolerated. In a letter to Major-General Cyril Brudenell White, Chauvel wrote that ‘the only saving clause about him [Anderson] is that he does not seem to stay in the same job very long, and if the war lasts long enough, he will have left the Defence Department before you and I get back’.<sup>137</sup> According to John Connor, Anderson’s non-military background was a virtue, but his position and attitude made him unsuitable as commandant at AIF Headquarters, London.<sup>138</sup> He was replaced by Colonel Thomas Griffiths, a regular AIF officer, on 31 March 1917 and subsequently returned to Australia.

The myriad challenges faced by individuals were not always easy to overcome. However, the army attempted to alleviate these initial difficulties through a series of methods that focused on cohesion, communication, and collaboration. Cohesion, for example, was brought about in two ways. The first was ensuring that change went with, rather than against, the organisational grain. Although change invariably resulted in new ways of working and the incorporation of new methods, it needed organisational support and to align with the organisation’s ethos if it was to succeed. The Inspectorate of Training’s advisory, rather than executive, function, for example, aligned with the army’s distrust of prescription. Its emphasis on ‘teach the teacher’ schemes – an important method when sharing knowledge or when integrating new formations – was a deliberate attempt to move away from accusations that it was dictatorial in its approach. In his opening lecture at the Inspector-General’s conference, Maxse hoped that the army would see the

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<http://adb.anu.edu.au/biography/anderson-sir-robert-murray-5021/text8353>, published in hardcopy 1979 [accessed online 26 August 2014].

<sup>136</sup> British Library [BL], Papers of Field Marshal Lord Birdwood, MSS Eur D686/77, Anderson to Birdwood, 26 March 1917.

<sup>137</sup> National Library of Australia [NLA], Papers of General Sir C. B. B. White, MSS 5172 2.3/40, Chauvel to White, 15 August 1917.

<sup>138</sup> J. Connor, *Anzac and Empire: George Foster Pearce and the Foundations of Australian Defence* (Melbourne, VIC: Cambridge University Press, 2011), pp. 84-85.

Inspectorate ‘as your friends, that you will write us private letters if we are not clear, and that you will not look upon us with suspicion’.<sup>139</sup> Maxse kept some of the positive responses from senior officers who reassured him that ‘you and yours are out to help and that is what is wanted’, and that he would ‘get plenty of support from everyone; you need not fear about that’.<sup>140</sup>

The Inspectorate’s ‘teach the teacher’ schemes were also aided by the appointment of AITs to the various Armies. Brigadier-General Gordon Guggisberg was responsible for the First and Third Armies, Brigadier-General Winston Dugan for the Second and Fifth Armies, while Brigadier-General Francis Marshall was appointed AIT to the Fourth Army as well as to Army and GHQ schools.<sup>141</sup> Embedded into each Army, the AITs built up a rapport and relationship with members of that formation. This proximity led to greater openness and empathy with each Army’s needs, engendering trust between the two parties.<sup>142</sup> In a letter to Dawnay, Lieutenant-General Sir Aylmer Hunter-Weston (GOC VIII Corps) wrote that ‘the Inspectors of Training are doing an immense amount of good... The fact that they can be there for some time to live with the Divisions and to continuously supervise their training is worth anything’.<sup>143</sup> Both Hunter-Weston and Macdonnell highlighted Guggisberg for particular praise with the former noting his ‘excellent work with the 20th and 63rd Divisions, and is proving to all that your Inspectorate is of real value’.<sup>144</sup>

The AITs realised Maxse’s desire for a ‘human element’ to training. As well as supervising training in each Army, each AIT and his GSO2 was allocated a sector on the front where they were expected to ‘watch the battles on the spot’. This was so they could ‘see the mistakes made in tactical handling... and then report back to Maxse’. Dugan and Evetts were

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<sup>139</sup> IWM, Maxse Papers, PP/MCR/C42 File 58, Inspector-General’s Conference, July-August 1918.

<sup>140</sup> *Ibid.*, Shute to Maxse, 30 August 1918, and Fergusson to Maxse, 31 August 1918.

<sup>141</sup> RAI, Uniacke Papers, MD 1160/1, Roll of Officers attached to staff of the IGT in France, n.d.

<sup>142</sup> See Lunenburg, ‘Managing Change’, pp. 1-6 for additional characteristics associated with change agency.

<sup>143</sup> IWM, Dawnay Papers, 69/21/3, Hunter-Weston to Dawnay, 18 October 1918.

<sup>144</sup> IWM, Maxse Papers, PP/MCR/C42 File 60, Hunter-Weston to Maxse, 18 October 1918, and Macdonnell to Maxse, 1 February 1919.



responsible for the Ypres sector of the front, working closely with the Second Army. Evetts recalled observing the 9th Division attacking in late 1918 using 'Maxse formations' ('blobs'). Dugan was 'taking notes and between us we produced a report which Maxse was extremely pleased with and gave him the picture of the adoption of his tactics'.<sup>145</sup> Brigadier-General Spencer 'Tom' Hollond, the Inspectorate's BGGS, and Barrington-Ward compiled these reports into training pamphlets that were then circulated to infantry brigadiers for their views.

The second means by which cohesion was promoted was through physical and organisational similarity. In change management literature, this is termed homophily - the idea that 'similarity breeds connection'.<sup>146</sup> Homophily is linked to successful change agency as it aids acceptance, particularly if the change agent is external to the organisation. For the army, this required the promotion of similarity whether through background, rank, or uniform. This was particularly relevant for certain civilian experts. A number of these experts shared a similar socio-economic background to senior military officials, which assisted their acceptance. In some cases, assimilation was aided through rank or uniform, although civilians did not always welcome this. Anderson recalled that he 'would have much preferred to have come in mufti, but it was explained that circumstances here were such that a man in mufti would have no position of authority'.<sup>147</sup> As a result, he was appointed as colonel and put in uniform. In a letter to Birdwood, Anderson wrote that he had 'donned the uniform', kept 'pegging away at my job and felt gradually the atmosphere of suspicion clearing away'.<sup>148</sup> Fay also railed against military rank and uniform, and was ultimately successful in his protestations with Robertson remarking 'I think you had better remain as you are'.<sup>149</sup> Geddes was given the honorary rank of major-general during his time as DGT, and subsequently vice admiral when appointed to Controller of

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<sup>145</sup> LC, Evetts Papers, Liddle/WW1/GS/0533, Tape 588, July 1979.

<sup>146</sup> M. McPherson, L. Smith-Lovin and J. M. Cook, 'Birds of a Feather: Homophily in Social Networks', *Annual Review of Sociology* 27 (2001), p. 415.

<sup>147</sup> AWM, Anderson Papers, PR83/020, Anderson to Trumble, 29 March 1916.

<sup>148</sup> BL, Birdwood Papers, MSS Eur D686/77, Anderson to Birdwood, 26 March 1917.

<sup>149</sup> Fay, *War Office*, p. 39.

the Navy. His transportation staff in France also acquired military rank.<sup>150</sup> According to Grieves, this was to ‘reinforce an authority based on a specialist skill with appropriate rank’.<sup>151</sup>

Attempts at homophily were not limited to appointments at the War Office either. In the Special Brigade, the rank and file were enlisted as full corporals. This was not unusual and was practised in other branches, such as the IWT.<sup>152</sup> Though resulting in extra pay, it helped integrate these newcomers, while simultaneously recognising their specialist experience. However, according to Foulkes, this higher rank resulted in ‘certain anomalies’. Infantry units ‘made rude comments when they saw soldiers who wore two stripes carrying out such menial regimental tasks’.<sup>153</sup> Perhaps an even greater anomaly was the sight of ‘REs of lowly rank lecturing everyone from General downwards’.<sup>154</sup> As we have seen with the geologists, the policy of providing civilians with a military rank was a flexible one and governed by the situation at hand.

Cohesion was also facilitated by effective communication. If members of an organisation do not understand why change is required then they are less likely to accept it. The reason for the appointment of particular individuals required clear communication from the top of the organisation. This not only legitimised change, but it also indicated that those individuals had support and buy-in from senior decision makers. In addition, it served to confirm the scope of an individual’s appointment. In a letter to Major-General Sir Archibald Montgomery (Major-General, General Staff [MGGS], Fourth Army), Dawnay reassured him that Maxse was ‘an inspector and general helper, but he has no executive or administrative functions whatever and he acts only through the training branch here’.<sup>155</sup>

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<sup>150</sup> For evidence of this, see TNA, WO 32/11379, Rawlinson Committee, Twining to MGO, 8 January 1919.

<sup>151</sup> Grieves, *Geddes*, p. 31.

<sup>152</sup> See TNA, T 1/11761 [3434], Royal Engineers Recruits - Grant of Engineer Pay, Secretary WO to Secretary Treasury, 12 October 1914; TNA, T 1/11761 [3434], Inland Water Transport Sectors for Service on Continent, Secretary WO to Secretary Treasury, 4 February 1915.

<sup>153</sup> IWM, Fox Papers, 76/49/1, Ts memoir, C. H. Foulkes’ Introduction to ‘Corporals All’, n.d.

<sup>154</sup> *Ibid.*, Chapter 1, n.d.

<sup>155</sup> LHCMA, Montgomery-Massingberd Papers, 7/32, Dawnay to Montgomery, 31 October 1918.

Transport missions to the various theatres also underscored the importance of communication. As we shall see in Chapter 4, these missions, chiefly led by civilian experts, were organised to understand better the problems facing the army across its different theatres. The War Office communicated with the expeditionary forces, outlining why these missions were being conducted. These communications highlighted the expert's credentials, stressed the 'valuable advice' they could provide, and that such advice came 'with the best of intentions'.<sup>156</sup> Geddes' success in France was often used as an exemplar, emphasising the proven track record of these particular experts. Robertson's letter to Maude, for example, noted that 'Haig is more than pleased with the way the transport department has overcome what seemed insuperable differences and has established quite a wonderful organisation'.<sup>157</sup> If Maude had suspicions, he did not reveal them. Instead, he wrote that he was 'looking forward very much to [Major-General Henry] Freeland's arrival', and was 'quite prepared to find that Freeland will be able to suggest a host of improvements'.<sup>158</sup>

In addition to cohesion and communication, the army also promoted attempts at collaboration between the change agent and the wider military organisation. The greater the collaboration, the more likely the change agent will be successful. This could occur in two ways. The first was by positioning these individuals in a collaborative setting. In the case of civilian appointments to senior military positions, there was usually a military member acting as deputy or immediate superior. Fay, for example, had a regular officer as his Deputy Director of Movements. Naturally, this arrangement was not without its difficulties. Lieutenant C. L. Hewson, a civilian superintendent on the Nigerian Railway, who had been seconded to work on the military railways during the Cameroons campaign, received sympathy from a fellow civilian regarding 'the difficulty of being under a Military Officer who has not the same technical and

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<sup>156</sup> TNA, MT 23/677/9, Mission of Sir Francis Dent to Egypt and Salonika, Cubitt to CinCs BSF and EEF, 24 October 1916; LHCMA, Robertson Papers, 4/4, Robertson to Maude, 3 October 1917; IWM, Papers of General Sir Archibald Murray, 79/48/3, Robertson to Murray, 12 May 1917.

<sup>157</sup> LHCMA, Robertson Papers, 4/4, Robertson to Maude, 3 October 1917.

<sup>158</sup> Syk (ed.), *Maude*, p. 285.

professional knowledge which you possess'.<sup>159</sup> The chemists who formed the basis of the Special Brigade were grouped with 'an equal number of men withdrawn from infantry battalions in the line, who supplied the necessary trench experience'.<sup>160</sup> This mechanism was also used in artillery survey. Hemming reflected on the 'skilful way in which this difficult and varied collection of enthusiastic amateurs was led by [the] six or seven RE senior officers. They were anything but hidebound in their attitudes and thinking, and eventually they and the units under their command achieved quite astounding results'.<sup>161</sup> This collaboration not only provided necessary expertise, but it also served to integrate and, in some cases, legitimise 'outsiders' within the military organisation.

The second means of collaboration was by engaging members of the organisation in the change process. This could be through individual consultation, or via conferences and meetings. It was through this latter method that both GHQ and Maxse attempted to legitimise the work of the Inspectorate. Senior staff officers, such as Dawnay, actively laid the groundwork for the branch, smoothing over as many problems as possible beforehand. Not a change agent himself, Dawnay was a facilitator or, to use Goya's term, an *entrepreneur*. Writing to his wife three days after the Inspectorate's establishment, Dawnay recalled how he had been 'round to half a dozen divisional and corps HQ, and had lots of talk about whether GHQ could do more to help and if we were going the right way about it'. He also 'consulted commanders [as] to their views on various points. They all like this and it does good'.<sup>162</sup>

Not long after its arrival in France, the 74th Division recalled an Inspectorate conference at Linghem. Representatives from all divisions in the Fourth Army were present to listen to Maxse outline the 'general scheme for the training of Armies in France'.<sup>163</sup> The conference introduced the Inspectorate as 'practical men, not clerks', impressing on delegates

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<sup>159</sup> IWM, Papers of Lieutenant C. L. Hewson, 01/9/1, Bonnell to Hewson, 11 December 1914.

<sup>160</sup> LHCMA, Foulkes Papers., 6/4, 'Report on activity of Special Brigade during the War', n.d.; IWM, Fox Papers, 76/49/1, Ts memoir, Chapter 1.

<sup>161</sup> Bragg, Dowson, and Hemming, *Artillery Survey*, p. 6.

<sup>162</sup> IWM, Dawnay Papers, 69/21/3, Dawnay to wife, 9 July 1918.

<sup>163</sup> TNA, WO 95/3148, 74th Division GS War Diary, 1 August 1918.

that it was there to help them. Its role was to ‘interpret GHQ doctrine as regards training and inculcate uniformity’.<sup>164</sup> Both GHQ and the Inspectorate made it clear that they wanted to hear from individuals on how training could be improved. This was not a case of lip service where opinions were sort and then ignored. In a letter to Uniacke, one BM in the Royal Artillery wrote that ‘Guy [Dawnay] has told me that you are asking for a few of our ‘experiences’ with single guns and mobile T[rench] M[ortars]’.<sup>165</sup> Both Maxse’s and Uniacke’s papers contain numerous letters from brigade command upwards which outlined what they believed to be the ‘needs and requirements out in France’. The report of the 46th Division’s BGRA on the close support role of artillery sections in open warfare, for example, found its way to the Inspectorate. Maxse annotated the report, deeming it ‘An admirable report - which might well be epitomised and issued to our inspecting staff’.<sup>166</sup>

Collaboration not only informed the Inspectorate’s demonstrations and lectures, but, as previously suggested, it also fed into its training leaflets. These leaflets were not designed to supersede *FSR* or the Training Branch’s SS series, rather they were to ‘illustrate in “ocular” form the existing official manuals’.<sup>167</sup> Maxse’s introduction to the 1919 collection of these ‘Training Leaflets’ noted that ‘they are founded upon a comprehensive, if anonymous, body of experience. They are not the product of a single pen nor even of the Training Staff alone’.<sup>168</sup> Senior officers and generals were encouraged and, more importantly, were willing to write to the Inspectorate suggesting material for future publications. Brudenell White, for example, suggested two future pamphlets, one focusing on ‘how brigade commanders coordinate and influence training’, and another that showed how to ‘*think out* training programmes’.<sup>169</sup> General Sir Charles Fergusson advocated a back to basics approach, suggesting ‘little schemes for

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<sup>164</sup> AWM, Papers of General Sir C. B. B. White, 3DRL/1400 4/7, Maxse to White, 30 July 1918.

<sup>165</sup> RAI, Uniacke Papers, MD 1160/1/4, Unknown Brigade Major RA to Uniacke, 30 September 1918.

<sup>166</sup> *Ibid.*, Memo, BGRA 46th Division to HQ RA IX Corps, 29 October 1918.

<sup>167</sup> RAI, Uniacke Papers, MD 1160/3, IGT, *Training Leaflets* (France: APSS, 1919).

<sup>168</sup> *Ibid.*

<sup>169</sup> IWM, Maxse Papers, PP/MCR/C42 File 58, White to Maxse, 31 August 1918. Original emphasis.

teaching advanced guards, outposts etc on the principles of company walks, i.e. by lecturing and demonstration'.<sup>170</sup>

By promoting cohesion, communication, and collaboration, the military attempted to overcome some of the barriers to change at an institutional level. However, change agents themselves were expected to display empathy and a willingness to work with others. In a sense, these individuals had to 'self-integrate'. As noted previously, Maxse and his Inspectorate pursued this empathetic approach by means of collaboration with the wider soldier body. It was also evident in other areas of the army. The geologist William King, for example, noted the necessity of being both knowledgeable and sensitive towards the military's needs, writing that:

It did not matter to an army whether, for instance, Kemmel Hill was a remnant of a cuesta or what it was. As the hill was there, the question of importance was, whereabouts on the hill dugouts should be made and where wells should be sunk. In many cases sites which would have been the best from geological considerations might not have suited the military requirements; the geologist must know the military as well as the practical scientific side of the question.<sup>171</sup>

The human touch was just as important as being knowledgeable. King went on to argue that geologists 'must see the ground and be in close touch with the men'. It was also important for them to have tact and that it was 'no good rubbing people up the wrong way and telling them they do not know anything about the subject'.<sup>172</sup> This sympathetic approach went some way towards lessening the initial suspicion and resistance felt towards change agents.

Foulkes expressed a similar sentiment on the initial lack of interest in gas warfare. He found it necessary to rectify this by 'delivering lectures throughout the Army in France in order to stimulate interest'. Foulkes also developed the *SS184 Monthly Summary of Gas Warfare* series in July 1917 with 'the same object in view'.<sup>173</sup> Individuals associated with artillery survey were also required to employ an approach that worked with the organisational culture of the

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<sup>170</sup> IWM, Maxse Papers, PP/MCR/C42 File 60, Fergusson to Maxse, 31 August 1918.

<sup>171</sup> King, 'Geological Work', p. 203.

<sup>172</sup> *Ibid.*, p. 221.

<sup>173</sup> LHCMA, Foulkes Papers, 6/42, Foulkes to War Office, 'Gas Organisation in the BEF and Future Need', 1 April 1919.

army. Artillery survey was a new development and, to overcome initial apathy and opposition, it required time to take root.<sup>174</sup> Lieutenant-Colonel Frederick Salmon, a pre-war surveyor in Ceylon and a topographical officer in the 3rd Field Survey Battalion, recalled how his formation started:

... courses of instruction... for the artillery in order that they might make better use of survey data. The principle in use in the French army, of having a specially trained subaltern in each brigade... as an “officier orienteur” was tried but failed miserably. We are of a different temperament from the French. Few British gunner majors will listen to advice from a subaltern even if he is an expert in his subject.<sup>175</sup>

This attitude required Salmon and his battalion to alter their knowledge sharing methods. They had to employ a method that was familiar to the army and one that followed the line of least resistance. Like Foulkes, they too started ‘lecturing the Majors and the Colonels with an occasional General thrown in, with rather more success’.<sup>176</sup>

Through a combination of organisational and individual efforts, the challenges to change could be mitigated if not completely overcome. However, this did not guarantee that change would be successful. Change did not take place in a vacuum. Its success was affected by internal factors, but, less predictable, was the changing nature of warfare, driven by the actions of an adaptive adversary. Consequently, initiatives were subject to the exigencies of tempo and environment, as well as organisational norms. The most successful examples of change are those that had the support of the high command in the form of ‘entrepreneurs’ and generals, and were fully integrated within the army.

Mining, as we have seen, was quickly integrated into the army with a network of advisors positioned at different levels of command. The establishment of this ‘specialised administration’ underscored the importance of mining to the army’s operations. Its presence

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<sup>174</sup> E. M. Jack, ‘Survey in France during the War’, *REJ* 30 (1) (1919), pp. 21-22.

<sup>175</sup> TNA, WO 181/528, Lieutenant-Colonel F. J. Salmon, ‘Survey Work on the Western Front’, *Transactions of the Engineering Association of Ceylon* (1920), pp. 34-35.

<sup>176</sup> *Ibid.*

was also felt through the publication of *Mining Notes*, which acted as an important method for disseminating and collecting information.<sup>177</sup> Prior to this, tunnelling companies had rendered reports of work to the division under which they were working. These were then forwarded up the command chain to GHQ. The production of *Mining Notes* ensured the systematic and timely publication of the most up to date developments. They were issued frequently, sometimes every four to seven days, and contained the experiences of front line tunnelling companies, as well as disseminating the results of experiments from the various Army mine schools.<sup>178</sup> *Mining Notes No. 1*, for example, outlined the 170th Company's experience of 'enemy methods in chalk ascertained by listening', which had been forwarded to GHQ by the Controller of Mines in the Third Army.<sup>179</sup> The expansion of the Inspectorate of Mining and its growing responsibilities, including mine rescue, increased its prominence within the army. However, with the onset of semi-mobile warfare in 1918, the need for offensive and defensive mining lessened. The expertise that had developed over the three years since the original clay-kickers was soon deployed in new ways, such as building and demolition work. The change initiative had been successful and remained so with the army promoting adaptation and eschewing complacency.

The experience of the Special Brigade tells a similar story. As we have seen, increased expertise at all levels of command ensured that gas warfare was effectively integrated into the army. As mentioned previously, the use of lectures and the development of the *SS184* series ensured that individuals across the army were aware of this new type of warfare. Its utility was recognised by the artillery for counter-battery purposes; chemical shells soon became the preferred method for neutralising German artillery. By the end of 1917, gas was ubiquitous on the battlefield.<sup>180</sup>

While the work of mining and gas were success stories, the Inspectorate of Training achieved mixed results. Its *raison d'être* was disseminated through conferences, dedicated

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<sup>177</sup> Institution of Royal Engineers, *Military Mining*, pp. 76-77.

<sup>178</sup> TNA, WO 158/130, *Mining Notes* 1916, *passim*.

<sup>179</sup> *Ibid.*, *Mining Notes No. 1*, 20 February 1916.

<sup>180</sup> Palazzo, *Seeking Victory*, p. 113.



personnel attached to Army headquarters, and training leaflets. However, it lacked the luxury of time. In operational existence for less than five months before the Armistice, it is difficult to measure its success. Unlike gas and mining, its reach was not ubiquitous. Its focus remained at the higher levels of command. As Uniacke suggested, ‘while training from the bottom never forget that you must teach from the top’.<sup>181</sup> The Inspectorate ‘brought sharper teeth to the work of the Training Branch in enforcing compliance to the BEF’s standard operating procedures’.<sup>182</sup> It also brought a fresh focus to training prior to, and during, the Hundred Days campaign. However, that Maxse frequently complained that commanders ignored the advice from GHQ, suggests that the Inspectorate faced challenges, but had little time in which to overcome them.

Far from allowing ‘no play for initiative, imagination, or inventiveness’, the British army was capable of responding to and instigating change – often with successful results. Though a rule-bound and hierarchical organisation, the army exhibited great flexibility in wartime in order to meet and overcome the ‘adapt or die’ dilemma. This change did not always come easily, particularly when it was perceived as emanating from outside the immediate organisation. As Goya suggests, the first thing to put the brakes on anything new was scepticism.<sup>183</sup> For the army and the individuals driving change, they had to address and mitigate this resistance and the wider challenges associated with change, such as suspicion, risk aversion, and redundancy. Through a combination of methods centring on cohesion, communication, and collaboration, change could be explained, aligned with the organisation’s ethos, with steps taken towards its institutionalisation. Without such methods, the capacity and willingness of individuals to accept these changes was limited.<sup>184</sup>

For change to succeed, it needed more than the likes of Maxse, Geddes, or Foulkes. It needed the support of leaders like Robertson and Haig who were prepared to back the innovator.

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<sup>181</sup> RAI, Uniacke Papers, MD 1160/2/11, Lecture on Artillery Employment, n.d. (c. July 1918), p. 23.

<sup>182</sup> Geddes, ‘Solly-Flood’, p. 48.

<sup>183</sup> Goya, *La Chair*, p. 220.

<sup>184</sup> *Ibid.*, pp. 228-229.

It also needed facilitators, officers like Dawnay and Fowke, to smooth over organisational resistance. Although the innovation might emanate from an individual or small group, it was reliant on a network of individuals at all levels of the organisation to aid its adoption. Underpinning this complex process was the army's ethos – one that favoured pragmatism and solutions specific to the situation in hand. Change needed to work with, rather than against, this ethos.

Historians' focus on Maxse and Geddes implies that innovation was a rare and isolated occurrence. However, this was not the case. Both men were far from exceptions to the rule. A culture of innovation or, what DiBella has called, a 'climate of openness' existed within the army.<sup>185</sup> Like most organisations, there were individuals in the army who were over-promoted, reactionary, or simply ill-suited to such challenging working conditions. On the whole, where there was a possibility of securing a competitive edge over its adversary, the army ensured that such ideas and individuals were given the opportunity to flourish. One could undercut this 'culture of innovation' by highlighting that most change in the army was reactive in nature. However, this does not mean that the army was conservative. According to Michael Oakeshott, to be conservative is to 'prefer the familiar to the unknown, to prefer the tried to the untried, fact to mystery, the actual to the possible'.<sup>186</sup> Change is 'a threat to identity... an emblem of extinction' and, for conservatives, is met with a 'cool and critical' disposition.<sup>187</sup> The army may have been critical at times, but it did not sacrifice potential innovation to maintain the status quo. Having to respond to so many urgent stimuli, it is hardly surprising that the army had little time for 'blue sky thinking'. While it did not appreciate top-down civilian interference, it was still receptive to, and willing to endorse, suggestions from individuals – often civilians - both inside and outside the organisation. As Foulkes commented, 'I found officers of high rank almost too receptive to novel proposals, especially when they were based on anything

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<sup>185</sup> DiBella, 'Learning Organization', p. 121.

<sup>186</sup> M. Oakeshott, *Rationalism in Politics and Other Essays* (London: Methuen, 1962), p. 169.

<sup>187</sup> *Ibid.*, pp. 170, 172.

mysterious or scientific'.<sup>188</sup> The army did not always get it right, but its attitude towards change was considered, organised, and responsive. This attitude was necessary for the army to establish and maintain its wartime superiority in the art of learning and adaptation.

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<sup>188</sup> Foulkes, *Gas!*, p. 102.

## CHAPTER 4 'WAR HAS BECOME A BUSINESS'

Writing in 1918, the American journalist Isaac Marcossou remarked that 'war has become a business'.<sup>1</sup> For Marcossou, the British army's organisation for supply was 'in many respects the most amazing business institution that I have yet seen'.<sup>2</sup> His account, designed to educate the American civilian and soldier alike with its 'revelation of British methods', drew distinct parallels between the world of 'big business' and the 'business of war'. According to Marcossou, Haig was never afraid to 'lean on experts' both military and civilian, while Britain as a nation 'completely commandeered' the business talents of its civilian experts.<sup>3</sup> This commandeering of talent is usually associated with the employment of transport experts such as Geddes who was appointed DGT on the Western Front and then subsequently Inspector-General of Transportation for all military theatres. Both Ian Malcolm Brown and Keith Grieves have considered Geddes' contribution, along with the work of the pre-war Railway Executive Committee [REC], to streamlining the transport network.<sup>4</sup> Such studies on the technical aspects of war tend to examine mobilisation plans, infrastructure, and high level decision-making in Whitehall. They also focus on the transport and infrastructure of the Western Front, rather than the army's other military theatres.<sup>5</sup>

As we have seen, the army was not averse to change. This chapter examines this concept in greater detail, exploring how the army sought out civilian expertise from both inside and outside its institutional boundaries. The introduction of these transferrable occupational skills allowed civilian ideas and values to influence the army. To use Goya's term, these

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<sup>1</sup> I. F. Marcossou, *The Business of War* (London: The Bodley Head, 1918), p. vii.

<sup>2</sup> *Ibid.*, pp. viii-ix.

<sup>3</sup> *Ibid.*, pp. 177, 181.

<sup>4</sup> Brown, *British Logistics*; Grieves, *Geddes*.

<sup>5</sup> An exception to this rule can be found in the works of Kaushik Roy and Kristian Coates Ulrichsen. See K. Roy, 'The Army in India in Mesopotamia from 1916 to 1918: Tactics, Technology and Logistics Reconsidered', in I. F. W. Beckett (ed.), *1917: Beyond the Western Front* (Leiden: Brill, 2009), pp. 131-158; Ulrichsen, *Logistics and Politics*.

‘emigrants’ (*émigrés*) had an important role to play in ‘fertilising’ (*féconder*) units.<sup>6</sup> They did not have the same preconceptions as professional soldiers; yet, like army officers, they were also used to managing individuals, making decisions, and assuming responsibilities.<sup>7</sup> It was often the case that these civilians were able to provide more relevant expertise in the development of transport and supply methods. Sometimes, lessons derived from military experience were simply unsuitable. In a letter to General Arthur Long (DST, War Office), Colonel Philip Scott (Deputy DST, BSF) wrote that the BSF is:

... under abnormal conditions, and nothing adds more to one’s trials and temper than the remark - often heard ‘We always did so and so in France’!!! Macedonia is not France, and Salonika does not compare with the combined advantages of Havre, Boulogne, Calais, with their short sea distance from the fount of all good things. Personally I think a training in France is apt to destroy initiative, but Macedonia will soon demand its pound of flesh.<sup>8</sup>

The army’s decision to seek out civilian expertise highlights the multi-faceted and flexible nature of its learning network. By leveraging knowledge from the civilian sphere, the army sought to increase its competitive advantage. This chapter suggests that the permeability of military and civilian spheres was not a wartime phenomenon. The relationship was well-established before the outbreak of the First World War.

This chapter first considers how these spheres interacted before the war, examining three particular avenues: the relationship between the army and civilian advisory bodies, including the Institution of Civil Engineers [ICE] and the Engineer and Railway Staff Corps [ERSC]; training courses, including the London School of Economics’ [LSE] administration course, the Midland Railway’s mechanical engineering course, and the Royal Indian Engineering College [RIEC]; and the secondment of army officers to the Crown colonies. Secondly, it examines the army’s wartime use of civilian experts in the development of

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<sup>6</sup> Goya, *La Chair*, p. 208.

<sup>7</sup> *Ibid.*, p. 209.

<sup>8</sup> TNA, WO 161/20, Correspondence between DST Salonika to DST WO, Scott to Long, 11 January 1916.

infrastructure projects. This section highlights some of the prejudices faced by these experts before turning its attention to the development of transport missions, the Suez Canal defences, water supply, and the EEF's desert railway. Finally, the chapter explores both the government and army's policy towards the identification and transfer of civilian experts within the army. It considers the US military's view of this policy before outlining the various stages of the British process during the war.

In 1920, after listening to a paper on the work of civil engineers in the First World War, the President of the ICE hoped that:

... the bond which has been established in these strenuous years between the Civil Engineers of Great Britain, the Dominions and Colonies, and the Royal Engineers of the Regular Army, may ever remain a close one, to our mutual advantage, professionally and socially, but above all with a view to the most efficient use being made of our vast engineer resources.<sup>9</sup>

Although emphasis was placed on maintaining this close bond, an established relationship between the two groups already existed before the outbreak of war. Founded in 1818, the ICE proved a milestone in the history of both the British and the wider Western engineering profession. It was a learned society, formed for 'facilitating the acquirement of professional knowledge, and for promoting mechanical philosophy'.<sup>10</sup> The ICE considered the passing of engineering knowledge between peers of paramount importance.<sup>11</sup> As a result, members of the ICE often gave lectures at the School of Military Engineering at Chatham, or provided articles for the *Royal Engineers' Journal* or the *RUSI Journal*.<sup>12</sup> RE officers of all ranks reciprocated by giving lectures at the ICE. In 1913, for instance, Captain Crofton Sankey delivered a paper on

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<sup>9</sup> 'Discussion. The Work of the Royal Engineers in the Great War', *Minutes of the Proceedings of the Institution of Civil Engineers [MPICE]* 210 (1920), p. 84.

<sup>10</sup> W. Linssen and P. Raymaekers, 'Engineering Institutions and Networking in Nineteenth-Century Belgium and Britain', *Proceedings of the Institution of Civil Engineers [PICE]* 166 (EH1) (2013), p. 27.

<sup>11</sup> G. Watson, *The Civils: The Story of the Institution of Civil Engineers* (London: Thomas Telford, 1988); Linssen and Raymaekers, 'Engineering Institutions', pp. 25-35.

<sup>12</sup> See, for example, H. Percy Boulnois, 'Modern Road Engineering', *Royal Engineers' Journal [REJ]* 37 (1) (1923), pp. 24-30. Boulnois was a member of the ICE.

bridging operations conducted under military conditions. He prefaced his talk with the following apologia:

The Author would not have ventured to submit this Paper to the Institution of Civil Engineers had he not thought that it might be acceptable in view of the close connection of The Institution with the Special Reserve Officer Corps of Royal Engineers, who, during their preliminary training... at Chatham, go through a course of instruction in the subject dealt with in the following pages.<sup>13</sup>

Sankey's paper generated considerable discussion from both the civil engineers and senior RE officers in attendance. Scott-Moncrieff, an associate member of the ICE with a diverse career in civil and military engineering, declared that it was 'impossible for him to say how much the engineering branch of the Army owed to The Institution', and that 'there was hardly a volume of its Proceedings in which there was not some valuable instruction bearing upon their [RE] daily work'.<sup>14</sup> With his considerable experience in the Indian Public Works Department [PWD] and on the Guaranteed Railway, Lucknow, he was well placed to make such an observation. Commenting on Scott-Moncrieff's wartime service, one contemporary noted that 'his connection with the ICE was one of great avail at this crisis, and he was able to draw in the power of a number of civil engineers and to secure the services of many of the leading contractors'.<sup>15</sup> Similarly, Sir John Griffith, a civil engineer and member of the ICE, noted that 'his own experience had taught him that civil engineers had a great deal to learn from their Royal Engineer brethren'.<sup>16</sup> There was a tacit acknowledgement that the two branches, although distinct, were closely bound together.

Armed forces membership of the ICE was limited, yet a small number of associate members and student members had been granted a commission in the Special Reserve in 1908. Officers commissioned into the Special Reserve had to be recommended to the Army Council

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<sup>13</sup> C. E. P. Sankey, 'Bridging-Operations Conducted under Military Conditions', *PICE* 192 (1913), p. 77.

<sup>14</sup> 'Discussion. Bridging-Operations Conducted under Military Conditions', *MPICE* 192 (1913), p. 132.

<sup>15</sup> Anon., 'Memoir: Maj-Gen G. K. Scott-Moncrieff', *REJ* 9 (1924), p. 496.

<sup>16</sup> 'Discussion. Bridging-Operations Conducted under Military Conditions', *MPICE* 192 (1913), p. 133.

by the ICE, or by the Professor of Engineering at any British university.<sup>17</sup> This process ensured that a highly qualified reserve of officers was available to the RE. It also added another layer to the army's long-standing relationship with the ICE. As well as acknowledging the need for highly qualified 'civils', the army also recognised the importance of imperial assignments. Evidence from the War Office's 1908 Committee on the Provision of Officers recommended that:

... in the case of junior officers of the Royal Engineer Special Reserve who have the opportunity of taking up civil posts, especially abroad, as much latitude as possible should be allowed in exempting them from annual training, if such civil work be of a nature calculated to render them more fit for the discharge of their military duties.<sup>18</sup>

Given the nature of their field, a number of these Special Reserve officers were already employed in civil posts within the colonies, working in PWDs, or on colonial railways.<sup>19</sup> On the outbreak of war, there were approximately seventy members of the ICE in the Special Reserve; of whom thirty-four were in the Royal Reserve of Engineers.<sup>20</sup> This figure represented a very small percentage of both the ICE (less than 1 per cent) and Royal Reserve of Engineers (2.7 per cent).<sup>21</sup> However, comments on the impact of these officers during the war suggested they were punching above their weight. With a wealth of experience to bring to their commissions, General Sir Herbert Lawrence remarked that it would not have been possible for 'the war to have been carried to a successful conclusion if the Royal Engineers had not had the assistance of these gentlemen, many of them of the highest eminence in their profession'.<sup>22</sup>

The relationship between the ICE and the military was multi-layered and went back

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<sup>17</sup> TNA, WO 33/2985, Fourth Report on the Commission of the Provision of Officers, Clause 10, 12 March 1908; Watson, *The Civils*, pp. 61-62.

<sup>18</sup> TNA, WO 33/2985, Clause 12 (g), 12 March 1908.

<sup>19</sup> TNA, ZLIB 21/237, Institution of Civil Engineers, Charter, Supplemental Charters, By-Laws and List of Members (London: ICE, 1914), pp. 58-329.

<sup>20</sup> 'Discussion. The Work of the Royal Engineers in the Great War', *MPICE* 210 (1920), p. 85; TNA, ZLIB 21/237, ICE List of Members, pp. 58-329.

<sup>21</sup> TNA, ZLIB 21/237, ICE List of Members, p. 67; TNA, WO 114/108, Special Reserve Establishment and Strength, 1 July 1914.

<sup>22</sup> 'Discussion. The Work of the Royal Engineers in the Great War', *MPICE* 210 (1920), p. 88.



further than the Special Reserve. The ICE had been the driving force behind the establishment of the ERSC in 1865. Formed amidst the French invasion scares of the 1860s, the ERSC was the brainchild of Charles Manby, Secretary to the ICE, and constituted for ‘the purpose of directing the application of skilled labour; and of railway transport to the purposes of national defence, and for preparing, in time of peace, a system of which such duties should be conducted’.<sup>23</sup> The corps consisted of officers only, its membership drawn from civil engineers and contractors, as well as officers of railway and dock companies. However, only ‘civil engineers of standing and experience, who have directed the construction of the chief railways and other important works of the country, and the General Managers of the leading lines of railway, and of the leading Commercial Docks’ were eligible for the rank of lieutenant-colonel in the ERSC.<sup>24</sup>

The ERSC was an elite organisation, comprising some of the leading engineers of the time. On the outbreak of the First World War, it totalled sixty members.<sup>25</sup> In many respects, it was one of the first expert advisory bodies to the British and, later, the Australian armed forces. The establishment of the Australian ERSC was authorised in 1911, fulfilling a similar role to its British counterpart. It was instituted to ‘furnish advice’ on matters relating to the movement of troops, and originally totalled forty-eight members from the Commonwealth and State Government railways.<sup>26</sup> It was expected that these bodies would be consulted by their country’s respective governments. However, in practice, their members were usually consulted in their individual capacities. The primary object of the British ERSC was to ‘afford to the Government information on subjects connected with the Railway Transport of Troops’.<sup>27</sup> It is, therefore, unsurprising that the ERSC counted individuals such as Sir William Forbes (General Manager, London, Brighton and South Coast Railways), Eric Geddes (Deputy General Manager, North

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<sup>23</sup> E. A. Pratt, *British Railways and The Great War* (London: Selwyn and Blount, 1921), pp. 5-6.

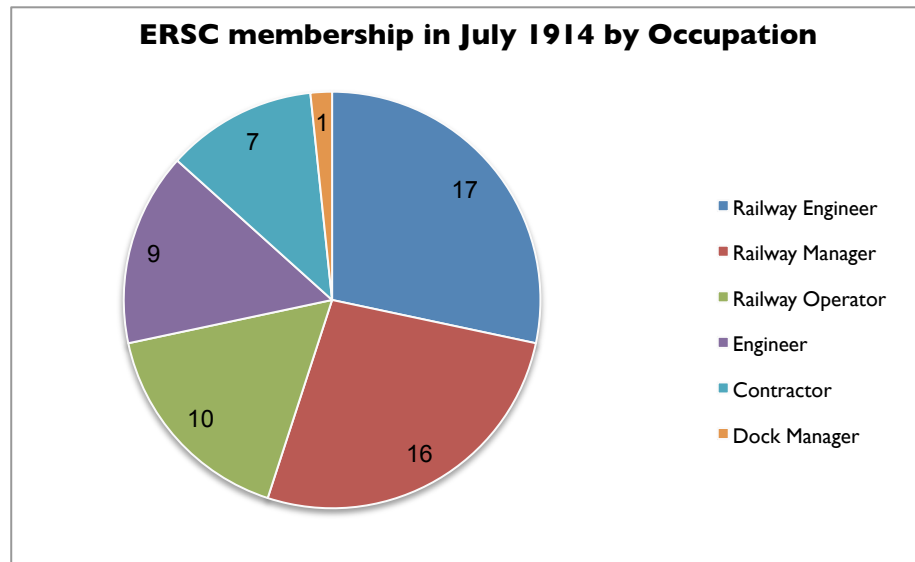
<sup>24</sup> TNA, RAIL 1014/17/1, Rules of the Engineer and Railway Staff Corps, 17 November 1908.

<sup>25</sup> TNA, WO 114/114, Territorial Force: Establishment and Strengths, 1908-1914.

<sup>26</sup> G. H. Knibbs, *Official Year Book of the Commonwealth of Australia 1901-1911, No. 5* (Melbourne, VIC: McCarron, Bird and Co, 1912), pp. 1094-1095; ‘War Railway Council. Engineer and Railway Staff Corps’, *The Mercury*, 19 December 1911, p. 5.

<sup>27</sup> Institution of Royal Engineers, *History*, V, p. 124.

Eastern Railways), and Sir Sam Fay (General Manager, Great Central Railways) as members.



**Figure 2: Breakdown of ERSC membership by occupation on the outbreak of war<sup>28</sup>**

Following the enactment of the 1907 Territorial and Reserve Forces Act, the ERSC became an official part of the Territorial Force and remains so to this day.<sup>29</sup> It provided a direct link between the ICE and the army, yet some of its pre-war members saw its role as far from the expert resource that it is regarded as today. Sam Fay recalled that, although the ERSC was ‘established for the purpose of rendering expert assistance in time of war’, its regular function was ‘that of having dinner, with members of the War Office staff as guests’.<sup>30</sup> Though the ERSC could be dismissed as a mere luncheon club, the guest list of the 1913 dinner suggests otherwise. It emphasises the perceived importance of the ERSC to the military, as well as the importance of social links between the two spheres.<sup>31</sup> The military guests at the dinner included Sir John French; Sir Charles Douglas, the CIGS in August 1914; Sir John Cowans; Sir Horatio Yorke, Chief Inspector of Railways; and Osborne Mance, a Staff Captain who acted as liaison

<sup>28</sup> C. E. C. Townsend, *All Rank and No File: A History of the Engineer and Railway Staff Corps RE, 1865-1965* (London: The Engineer and Railway Staff Corps, RE (TAVR), 1969), pp. 94-96.

<sup>29</sup> M. Stancombe, ‘The Staff Corps: A Civilian Resource for the Military’, *PICE* 157 (5) (2004), pp. 22-26.

<sup>30</sup> Fay, *War Office*, p. 39.

<sup>31</sup> Phillips, ‘Managing Armageddon’, p. 45.

between the army and the railway companies prior to August 1914.<sup>32</sup> Fay was quick to acknowledge the ERSC's wartime role: 'all its members in one form or another rendered service to the State throughout the great struggle'.<sup>33</sup> The role of certain ERSC members, particularly railway managers, was most notable during Britain's mobilisation preparations. According to Edwin Pratt, so far as the British railway managers were concerned, their part in mobilisation was simply the 'practical outcome of... peace-time preparations...'<sup>34</sup>

Some of the railway members of the ERSC were also members of the REC. Established by the government in 1912, the REC consisted entirely of the railway industry's leading general managers.<sup>35</sup> Its role was to contribute to the establishment of a mobilisation scheme for time of war, to act as a forum for the dissemination of ideas, and to act as a conduit for information between the railways and the War Office. Its most significant contribution would be the production of the 'secret timetable' that guided the BEF's mobilisation in August 1914.<sup>36</sup> Indeed, upon mobilisation, it was expected to:

... co-ordinate the railway transport requirements in connection with the mobilisation of the naval and military forces... to ensure the transit of war material and the maintenance of food supplies of the civil population; to apportion the traffic... to secure the best results, and to arrange programmes with a view to avoiding any clashing of interests...<sup>37</sup>

With the establishment of both the ERSC and the REC, the civilian and military professions had been engaged in a mutually beneficial, cooperative process for over half a century.

Through bodies such as the ERSC and the REC, the government and the British military had ready access to civilian experts with 'experience of coherent large scale

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<sup>32</sup> *Ibid.*; Townsend, *All Rank*, p. 42.

<sup>33</sup> Fay, *War Office*, p. 39.

<sup>34</sup> Pratt, *British Railways*, p. 114.

<sup>35</sup> In 1914, the members of the REC were Herbert Walker (London and South Western Railway), Sir Sam Fay (Great Central Railway), Donald Matheson (Caledonian Railway), Francis Dent (South Eastern and Chatham Railway), Frank Potter (Great Western Railway), Sir Robert Turnbull (London and North Western Railway), John Aspinall (Lancashire and Yorkshire Railway), Sir Guy Granet (Midland Railway), Sir Alexander Butterworth (North Eastern Railway), Charles Dent (Great Northern Railway), and Sir William Forbes (London, Brighton and South Coast Railway).

<sup>36</sup> Phillips, 'Managing Armageddon', p. 47.

<sup>37</sup> Pratt, *British Railways*, p. 42.

organisation'.<sup>38</sup> However, they recognised that soldiers, particularly those in the technical branches of the army, could derive further benefits from training in, and exposure to, civilian skills. One of the best known examples of this is the LSE's 'Course for the Training of Officers for the Higher Appointments in the Administrative Staff of the Army'.<sup>39</sup> The brainchild of Richard Haldane, Sir Halford Mackinder, and Edward Ward, the course was geared to produce 'a thinking school of officers who desire to see the full efficiency which comes from new organisation'.<sup>40</sup> In his address to the first cohort in 1907, Mackinder believed that it was advisable for officers to make themselves businessmen:

... we here can only put before you the ordinary civilian methods. Business men, you must remember, are not merely business men, but bankers, or brokers, or merchants. What you have to form is another special kind of business man, the soldier... You may at a time come into contact, as many of you did in South Africa, with a civilian population characterized by deeply engrained business prejudices and methods of its own, and it will be of the utmost importance to you to know civilian business...<sup>41</sup>

The course sought to draw on the lessons of previous campaigns, such as the Boer War, which had demonstrated the 'need for specialised administrative officers whose training should include financial, commercial and legal qualifications'.<sup>42</sup> The course included subjects such as accounting and business methods, statistics, and railway management in war and peace.<sup>43</sup> Leading authorities from both academia and commerce delivered these subjects; Wilfred Tetley Stephenson, a former member of the North Eastern Railway, for example, ran the module on railway management and organisation. However, the syllabus was not static. Conscious efforts

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<sup>38</sup> K. Grieves, 'The Transportation Mission to GHQ', in Bond *et al.*, *Look To Your Front*, p. 65.

<sup>39</sup> For a history of the LSE course, see Sloan, 'Haldane's Mackindergarten', pp. 322-352; P. Grant, 'Edward Ward, Halford Mackinder and the Army Administration Course at the London School of Economics, 1907-1914', in LoCicero, Mahoney and Mitchell (eds.), *A Military Transformed?*, pp. 97-109.

<sup>40</sup> W. Funnell, 'National Efficiency, Military Accounting and the Business of War', *Critical Perspectives on Accounting* 17 (2006), p. 728.

<sup>41</sup> PP, Army. Report of the advisory board, London School of Economics, on the first course at the London School of Economics, January to July, 1907, for the training of officers for the higher appointments on the administrative staff of the army and for the charge of departmental services, Appendix C, p. 11, 1907, [Cd. 3696], XLIX.691.

<sup>42</sup> Funnell, 'National Efficiency', p. 734.

<sup>43</sup> PP, Report on the first course at the LSE, January to July, 1907, Appendix B, pp. 8-10.

were made to ensure that the material taught to army officers was both current and relevant. In 1910, for example, it was felt that certain modules had ‘less immediate practical bearing’. Accordingly, modules relating to banking, statistics, public administration, and geography were omitted, while lectures on ‘Business Organisation’ were introduced instead.<sup>44</sup> These particular lectures were concerned with manufacturing industries, the organisation of a commercial office, legal restrictions on industry, and the impact of government departments, such as the Boards of Trade and Agriculture.<sup>45</sup> In addition to these formal modules, Mackinder established ‘smoking meetings’, which took place once a week in the evening. The guest speakers at these meetings were often businessmen. This allowed officers to ‘accumulate the experience of practical men’ in a highly social setting.<sup>46</sup> This echoed the club culture of the time and resonated with the army’s own attitude towards socialising.

The LSE course was unique in its conception. However, its reach was limited with only 245 officers completing the course between January 1907 and March 1914. The majority of these officers were captains (67 per cent) and, although the infantry and other corps were represented, ASC officers made up the largest share of the overall intake (eighty-five officers). A number of these ASC officers would go on to hold significant appointments during the war, notably Lieutenant-Colonel Oscar Striedinger (Class of 1909 and DST BSF, 1915); his successor as DST BSF, Colonel Philip Scott (Class of 1909); and Brigadier-General Wilfred Swabey (Class of 1908 and DST IEF, 1917-1918). The willingness of the War Office and the Army Council to work with an institution like the LSE speaks to the importance of rounding out the education of the officer corps.

In addition to the LSE course, there were other civilian-influenced army courses developed in conjunction with Midland Railway and HM Dockyard, Chatham, as well as the RIEC at Cooper’s Hill. These courses aimed to equip officers with experience of civilian railway work. The importance of railways at home and abroad was well known to the military.

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<sup>44</sup> PP, Report on the fourth course at the LSE, October, 1909, to March, 1910, p. 3.

<sup>45</sup> *Ibid.*, Appendix C, pp. 5-6.

<sup>46</sup> Sloan, ‘Haldane’s Mackindergarten’, p. 335.

As Gourvish argues, the development of railways coincided with the creation of accountancy in its modern sense with the rise of companies such as Price, Holyhead and Waterhouse, and Deloitte.<sup>47</sup> The railways were of crucial significance to the development of industrialisation in nineteenth century Britain, converting engineering from the profession of a handful of talented individuals into a large and diverse organisation covering a wide range of skills.<sup>48</sup>

Established in 1894, the Midland Railway's 'Course of Instruction in Mechanical Engineering' gave those RE officers who had decided to specialise in railways a 'thorough, practical knowledge of machine design, the fitting, erection and repair of machinery, and the care and working of boilers'.<sup>49</sup> The course was intensive: a year in length with nine months spent in the railway shops and three months in the drawing rooms. Officers were to conform to the working patterns of Midland Railway and were actively encouraged to put in extra hours so as to 'be of real assistance to the men with whom they are working, and to win their confidence'.<sup>50</sup> In this respect, RE officers were given a real taste of work in a civilian firm and a first hand appreciation of civilian man management. Brigadier-General Ralph Micklem undertook the Midland Railway course as a young subaltern in September 1904. After spending a fortnight at Brecon on a single line, he then spent 'two or three months in London on goods working, then to Derby, where I did a month as a fireman, and then to various other places on Civil Engineering jobs'.<sup>51</sup> Although Micklem found the year enjoyable, he confessed that he did not think he had 'learnt a great deal'. Whether this is true or not, Micklem's post-course career saw him seconded to the Egyptian army where he worked with the Sudan Military Railway, surveying for new lines, and he was later appointed Resident Engineer at Port Sudan. On the

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<sup>47</sup> A. D. Chandler Jr., *The Visible Hand: The Managerial Revolution in American Business* (Cambridge, MA: Harvard University Press, 1977), p. 109; T. R. Gourvish, 'The Rise of the Professions', in T. R. Gourvish and A. O'Day (eds.), *Later Victorian Britain 1867-1900* (Basingstoke: Macmillan, 1988), p. 31.

<sup>48</sup> R. A. Buchanan, 'Engineers and Government in Nineteenth-Century Britain', in R. Macleod (ed.), *Government and Expertise: Specialists, Administrators and Professionals, 1860-1919* (Cambridge: Cambridge University Press, 1988), p. 43.

<sup>49</sup> TNA, WO 32/6164, Instructions for Officers joining the Midland Railway Company's Course of Instruction in Mechanical Engineering, 24 August 1894, p. 1. The Midland Railway Company course ran from 1894-1904 and ceased following the establishment of the Woolmer Instructional Military Railway (later known as Longmoor Military Railway) in 1905.

<sup>50</sup> *Ibid.*

<sup>51</sup> IWM, Papers of Brigadier-General R. Micklem, 87/8/1, Memoir, n.d., p. 3.

outbreak of war, Micklem was serving as assistant to the General Manager of the Atbara-Port Sudan railway. As a trained railway officer, Micklem's wartime service was largely spent in the Movements Directorate at the War Office where he was responsible for 'all the railway arrangements in connection with Home Defence'.<sup>52</sup>

The Midland Railway course also provided the template for the RE course at HM Dockyard, Chatham. Though not aligned to a civilian firm, the aims of the Chatham course were identical to those of the Midland Railway course.<sup>53</sup> Established in 1901, it was initially open to three officers per year. Unlike the Midland Railway course, attendance was not voluntary.<sup>54</sup> No officer would be deemed competent to undertake the duties of an inspecting officer for machinery if he had not first completed the Chatham course. Drawing on the lessons of the Midland Railway course, the reports and notes made by officers at Chatham were to be submitted to the Inspector of Iron Structures, rather than the commandant at the School of Military Engineering. It was felt that the former would be 'better able to say... what class of work is likely to prove of general use to machinery officers in the future'.<sup>55</sup>

While the Midland Railway and Chatham courses were useful for officers hoping to serve in the Crown colonies, the founding of the RIEC in 1870 provided formal training for those officers or, more often, civil servants destined for employment in PWDs. The RIEC was established in response to an initial failure to recruit suitably qualified engineers for the Indian PWD.<sup>56</sup> Much like the LSE administration course, the RIEC was devised and developed at the highest levels of government. During its development, it had the support of George Campbell, eighth Duke of Argyll and Secretary of State for India, who convinced colleagues on the

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<sup>52</sup> *Ibid.*, p. 7. Micklem also served as an assistant to Brigadier-General H. O. Mance who had pre-war service working on the Kimberley Line during the Boer War as Director of Railways and Armoured Trains, along with a period (1908-1911) on the Baro-Kano railway in Nigeria.

<sup>53</sup> TNA, WO 32/6164, Instructions for Officers of the Royal Engineers undergoing a course of Instruction in Mechanical Engineering in HM Dockyard, Chatham, May 1901.

<sup>54</sup> Officers could cease to attend the Midland Railway course if they so wished. This was not the case with the Chatham course.

<sup>55</sup> TNA, WO 32/6164, Charles Nugent [IIS] to Deputy Inspector-General of Fortifications, 21 April 1901

<sup>56</sup> PP, 1901 (290) East India (Public Works Department), p. 26.

Council of India and later in the House of Commons of its value.<sup>57</sup> Lectures and modules at the RIEC were delivered by leading experts in the field. In 1873, for example, W. C. Unwin – an associate member of the ICE and author of the influential *The Elements of Machine Design* – delivered the module in hydraulic engineering and mechanisms.<sup>58</sup> Other modules included construction, architectural drawing, surveying, natural science, and instruction in languages such as Hindustani, French, and German.<sup>59</sup> The faculty of the RIEC also represented the coming together of civilian professionals and military experts. Heavily modelled on the Royal Military Academy at Woolwich, all four presidents of the RIEC were former RE officers, while the instructors in surveying were made up of both RE officers and members of the ICE.<sup>60</sup> Students at the RIEC were also expected to go through military exercises, which included the use of the rifle.<sup>61</sup> Owing to competition from the emerging ‘red brick’ universities, the RIEC closed in 1906. During its heyday between 1871-1884, approximately 75 per cent of RIEC graduates were appointed to positions within the Indian PWD.<sup>62</sup>

These courses of instruction, encouraging closer working between the civil and military spheres, aligned with the so-called ‘Rise of the Professions’ of the mid-nineteenth century.<sup>63</sup> For officers in the army’s technical branches, these courses provided up to date knowledge on civil and mechanical engineering practice. To deploy this knowledge, the army recognised that a number of its officers, particularly those in the RE, could be usefully seconded to the Egyptian

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<sup>57</sup> B. P. Cuddy, ‘The Royal Indian Engineering College, Cooper’s Hill (1871-1906): A Case Study of State Involvement in Professional Civil Engineering Education’, PhD Thesis, University of London, 1980, pp. 91-92.

<sup>58</sup> Unwin’s book also appears on the reading list for the Chatham course.

<sup>59</sup> TNA, CSC 6/2/67, Civil Service Commission: Regulations, Rules and Memoranda, Open and Limited Competitions, Royal Indian Engineering College Coopers Hill Prospectus, 1878, pp. 5-6. For a full list of modules run at RIEC, see Cuddy, ‘Cooper’s Hill’, pp. 307-309.

<sup>60</sup> The Presidents of RIEC were Lieutenant-Colonel George Tomkyns Chesney, RE (1871-1880); General Alexander Taylor, RE (1880-1896); Colonel John Pennycuik, RE (1896-1899); and Colonel John Walter Otley, RE (1899-1906). See Cuddy, ‘Cooper’s Hill’, pp. 307-308.

<sup>61</sup> PP, 1882 (90) Cooper’s Hill College, p. 6.

<sup>62</sup> PP, 1884-85 (355) Cooper’s Hill College, p. 4.

<sup>63</sup> For discussion of the ‘Rise of the Professions’, see P. Corfield, *Power and the Professions in Britain, 1700-1850* (London: Routledge, 1995); Gourvish, ‘The Rise of the Professions’; W. J. Reader, *Professional Men: The Rise of the Professional Classes in Nineteenth-Century England* (London: Weidenfeld and Nicolson, 1966).



army or to PWDs across the Empire.<sup>64</sup> From the mid-1890s onwards, the British government devised a series of development schemes to promote the economies of its Crown colonies.<sup>65</sup> Joseph Chamberlain, as Secretary of State for the Colonies, instigated these schemes, which required the issue of colonial loans and the contracting of engineers.<sup>66</sup> The secondment of military engineers was not a new nineteenth century development; it was woven into the fabric of colonial administration. British military engineers, drawn mainly from the RE, had been seconded to the army of the East India Company since the eighteenth century. This trend continued after Crown rule in 1858, with RE officers making up a high proportion of military engineers seconded to the Indian army.<sup>67</sup>

Casper Andersen has argued that experience of imperial engineering acted as a social lever for British engineering elites. The Empire provided ‘a path to affluence and wealth as well as to high positions in accredited institutions’.<sup>68</sup> Andersen’s argument can also be applied to the RE. Although imperial engineering did not bring about the same wealth and affluence, it often led to influential positions within the military. The experience of imperial civil engineering was highly prized. In his evidence to the 1919 Rawlinson Committee on Engineer Organisation, Major-General Alain Joly de Lotbinière, formerly Chief Engineer to the Australian Corps, remarked that:

... RE Officers who had a considerable experience of foreign service were as a rule far more useful in the field than those who had spent their service in the British Isles... An RE officer who has had no engineering experience... cannot for a moment be compared with a ‘free lance’ engineer, who has had training *on large works such as construction of Railways, bridges, docks, water supplies etc, in various parts of the world. These are the men who on active service one*

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<sup>64</sup> See TNA, WO 106/6372, Memorandum on the service of British Officers in the Egyptian Army, 1 March 1906.

<sup>65</sup> D. Sunderland, ‘The Department System of Railway Construction in British West Africa, 1895-1906’, *Journal of Transport History* 23 (2) (2002), p. 87. However, as Sunderland notes, in responsible government colonies, lines were constructed by the private sector, contractors or the local government. Private companies built Indian railways until 1869, when the government took over construction. From the mid-1880s the private sector was used again, although State construction continued.

<sup>66</sup> R. M. Kesner, ‘Builders of Empire: The Role of the Crown Agents in Imperial Development, 1880-1914’, *Journal of Imperial and Commonwealth History* 5 (3) (1977), p. 316.

<sup>67</sup> J. Black, ‘A more vigorous prosecution of public works: the reforms of the Indian Public Works Department’, *Accounting History* 6 (2) (2001), p. 95.

<sup>68</sup> C. Andersen, *British Engineers in Africa, 1875-1914* (London: Pickering and Chatto, 2011), p. 166.

*selects for important undertakings.*<sup>69</sup>

Before joining the RE, Joly de Lotbinière had served as a journeyman fitter in various US and Canadian railway shops. His decision to pursue this diversion into mechanical engineering allowed him to gain ‘practical knowledge and experience’ and to familiarise himself with ‘the details of railway work’.<sup>70</sup> He also had extensive experience of civil engineering in India. On the outbreak of war, he was Engineer-in-Chief to the Bengal PWD.<sup>71</sup> His evidence to the Rawlinson Committee found support from Major-General Sir Philip Twining (DFW, 1918-1920) who had served alongside Joly de Lotbinière as a journeyman. Twining went on to serve in India with the Bombay Sappers and Miners, and was involved in surveying the railway through the Khyber Pass. His work on this survey led to his involvement on the Uganda Railway with individuals such as George Whitehouse, the railway’s Chief Engineer.<sup>72</sup> Commenting on the future training of the RE, Twining recalled that, during the First World War, the army was ‘largely... dependent upon India and the British railways for the heads of the Transportation Directorate. Such British Royal Engineers as there were employed in Transportation were all of very junior rank’.<sup>73</sup> This assertion is borne out by a schematic provided by Twining to the Rawlinson Committee, summarised in Figure 3 below.

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<sup>69</sup> TNA, WO 32/11379, Papers relating to Rawlinson Committee, Memo, ‘Notes for DFW as regards future training of Royal Engineers’, 15 January 1919, pp. 1-2. Added emphasis.

<sup>70</sup> A. C. Joly de Lotbinière, ‘Obituary: Major-General Sir Philip Twining’, *REJ* 31 (4) (1920), p. 220.

<sup>71</sup> TNA, WO 32/11379, Rawlinson Committee, Twining to Master General of the Ordnance [MGO], 17 January 1919. Joly de Lotbinière’s pre-war appointments brought him into contact with General Sir William Birdwood who selected him as Chief Engineer, ANZAC Corps.

<sup>72</sup> Joly de Lotbinière, ‘Obituary’, pp. 221-222; H. Gunston, ‘The Planning and Construction of the Uganda Railway’, *Trans Newcomen Society* 74 (2004), pp. 45-71; Casper Andersen, ‘Explorer-Engineers Take the Field: Imperial Engineers, Africa, and the Late Victorian Public’, in K. H. Nielsen, M. Harbsmeier and C. J. Ries (eds.) *Scientists and Scholars in the Field* (Aarhus: Aarhus University Press, 2011), p. 177.

<sup>73</sup> TNA, WO 32/11379, Rawlinson Committee, Twining to MGO, 8 January 1919.

<b>Directorates</b>	<b>Officer</b>	<b>Pre-war occupation</b>
Director of Railways	Colonel William Waghorn RE	Deputy Manager, North Western State Railway, India
Director of Light Railways and Roads	Brigadier-General Philip Twining RE	Indian Railways
Director of Traffic	Brigadier-General Henry Freeland RE	Traffic Superintendent, North Western State Railway, India
Director of Docks	Brigadier-General Ralph Wedgewood	Passenger Manager, North Eastern Railways, UK
Director of Inland Water Transport	Brigadier-General Gerald Holland RIM	Marine Superintendent, London and North Western Railways, UK

**Figure 3: Pre-war background of officers serving as directorate heads in DGT<sup>74</sup>**

The ‘scramble for Africa’ also resulted in a number of opportunities for RE officers to gain experience of survey, expedition, and railway work. Secondments to the Egyptian army offered one such route. As we have seen, Percy Girouard was assigned to the Egyptian army in 1896, marking the beginning of a notable military career. Like Girouard, Sir George Macauley, who later rendered considerable service to both Murray and Allenby as General Manager of the Egyptian State Railways [ESR], was an RE officer transferred to the Egyptian army in 1896. Initially appointed Chief Engineer of the Sudan Military Railway, Macauley also took part in the 1897 Sudan expedition and Kitchener’s subsequent expedition in 1898. After resigning his RE commission, Macauley served as General Manager of the Sudan Railway (1898-1906) before transferring to the ESR.<sup>75</sup> Other notable individuals seconded to the Egyptian army included Brigadier-General Henri Joly de Lotbinière (a contemporary of Girouard and Macauley, and relation to Alain Joly de Lotbinière) who was employed by the Survey

<sup>74</sup> Information drawn from TNA, WO 32/11379, Rawlinson Committee, Twining to MGO, 8 January 1919.

<sup>75</sup> NAM, Papers of Sir George Macauley, 8008-72, Allenby to Curzon, 30 August 1922.

Department of the Egyptian government in 1906.<sup>76</sup> He served as Girouard's staff officer during the Boer War before rising to become Chief Engineer to the XVIII Corps during the First World War.

Much of the surveying, construction, and operation of the railways, particularly in Africa, had been under the direction of RE officers.<sup>77</sup> The opportunity to work on railways in the Crown colonies brought RE officers into contact with civilian counterparts, while simultaneously enhancing the former's opportunity for higher appointment. For example, Geddes and Major-General Henry Freeland had both worked for railway companies that served northern India.<sup>78</sup> This relationship was instrumental to Freeland's involvement in Geddes' transportation mission in 1916 and appointment as a Deputy DGT in 1917.

Having considered the civil-military relationship pre-war, we shall now examine how these existing formal ties were exploited and developed by the army during the First World War. Before considering the development of transport missions, the Suez Canal defences, water supply, and the EEF's desert railway, it is necessary to look at some of the suspicions faced by these civilian experts.

As we have seen, Girouard and Geddes' transport missions provided clear examples of civilian involvement in France. Geddes' mission in August 1916 included individuals such as Philip Nash, formerly of the Great Northern Railway and the East Indian Railways; George Beharrell, formerly Assistant Goods Manager and Commercial Agent to the North Eastern Railway; Brigadier-General Osborne Mance, then Assistant Director Railway Transport at the War Office; and Freeland. According to Grieves, both Mance and Freeland were 'uncomfortable' about their membership of a civilian mission designed to scrutinise existing

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<sup>76</sup> TNA, FO 371/168/100, Employment of Major Joly de Lotbinière in Egyptian Government, 21 September 1906.

<sup>77</sup> TNA, FO 881/7120, Report on the Uganda Railway by Sir Guildford Molesworth, 28 March 1899, p. 4; Institution of Royal Engineers, *History*, V, p. 119.

<sup>78</sup> Freeland had worked as a Traffic Superintendent on the North Western State Railway, while Geddes had served as a Traffic Superintendent on the Rohilkhand and Kumaon Railway.

procedures.<sup>79</sup> The rapid expansion of the army led to a considerable change in the balance of civil-military relations. For Haig, the fundamental principle was to:

... employ men on the same work in war as they are accustomed to do in peace. Acting on this principle I have got Geddes at the head of all railways and transportation, with the best practical civil and military engineers under him. At the head of the road directorate is Dr Maybury, head of the road board in England... To put soldiers who have no practical experience of these matters into such positions merely because they are generals and colonels, must result in utter failure.<sup>80</sup>

The establishment and staffing of the new Transportation Directorate led Lord Northcliffe to remark that ‘we have brought to France a considerable portion of industrial England’.<sup>81</sup> Although civilian experts staffed the highest echelons of the Transportation Directorate, it is impossible to disregard suspicion felt by some senior military figures. Both Cowans and Lieutenant-General Sir William Marshall (CinC, Mesopotamian Expeditionary Force) expressed reservations over the use of civilian experts, particularly when these experts took over traditionally military roles. Initially, Cowans viewed the appointment of Andrew Weir, later Lord Inverforth, as Surveyor-General of Supply ‘unfavourably’; while Marshall, a prominent sceptic of civilian experts, recalled how there were ‘altogether too many conferences and commissions and, I may add, too many so-called ‘super-men’ during the war’.<sup>82</sup> Lieutenant-General Sir Frederick Clayton (IGC, BEF) expressed similar remarks in his rejoinder to the 1916 Royden Commission. This commission, led by Sir Thomas Royden, chairman of the Cunard Line, was established for the purpose of investigating delayed shipping at French ports used to supply the British army. Having advised the War Office in 1912 on the potential problems of disembarking the BEF upon the European mainland, Royden was used to working

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<sup>79</sup> Grieves, ‘Transportation Mission’, p. 66.

<sup>80</sup> TNA, WO 256/13, Haig Diaries, 27 October 1916.

<sup>81</sup> Quoted in Grieves, ‘Transportation Mission’, p. 68.

<sup>82</sup> Chapman-Huston and Rutter, *Cowans*, II, pp. 199-200; W. R. Marshall, *Memories of Four Fronts* (London: Ernest Benn, 1929), p. 294.

with military personnel.<sup>83</sup> However, Clayton's rejoinder declared that:

... it is impossible for the ordinary business civilian to understand [what are] the conditions under which we have to work and that it is a mistake to allow them to interfere with an Army business that most of us have studied all our lives [...] for that reason we should not allow in future any civilian Commission to come out here and criticize our work.<sup>84</sup>

Initial suspicions aside, transport and supply considerations were coordinated at the highest levels of the army. This coordination served to have a positive effect on the subsidiary theatres with the organisation of several high level transport missions. In a letter to the British forces in Egypt and Salonika, the Army Council outlined plans for a 'complete survey of the requirements of the various theatres of war for transportation material... made by experts... in consultation with the General Officers Commanding-in-Chief'.<sup>85</sup> Sir Francis Dent, General Manager of the South Eastern and Chatham Railway and a member of the REC, led the transport mission to Salonika and Egypt in late 1916. Modelled on Geddes' mission and supported by a series of 'technical experts', Dent's investigation would similarly examine rail, light railway, road, docks, wharves, and inland waterways.<sup>86</sup>

Dent's undertaking was the first of several 'troubleshooting' exercises to the subsidiary theatres. Experts drawn from both civilian and military spheres led these subsequent missions. John W. Stewart, for example, led a follow up mission to Egypt and Palestine in July 1917.<sup>87</sup> Stewart was a Canadian railway magnate who had helped build the Pacific Great Eastern and Canadian Northern railways before the war. Given a military rank and initially tasked with reorganising light railways on the Western Front, Stewart was soon promoted to Deputy DGT and despatched to Egypt. His mission was predicated on the success of Geddes' reorganisation.

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<sup>83</sup> C. Phillips, 'Henry Wilson and the Role of Civil-Military Cooperation during the Planning of British Mobilisation for War, 1910-1914', *Ex Historia* 5 (2013), pp. 125-126.

<sup>84</sup> MRC, Granet Papers, MSS.191/3/3/14-24, Response to Royden Commission, 30 July 1917.

<sup>85</sup> TNA, MT 23/677/9, Mission of Sir Francis Dent to Egypt and Salonika, Secretary WO to CiCs Egypt and Salonika, 24 October 1916.

<sup>86</sup> *Ibid.*; MRC, Granet Papers, MSS.191/3/3/127, Memorandum on Transport Facilities in the Various Theatres of War, 28 October 1916, pp. 22, 27.

<sup>87</sup> A further follow up mission to Salonika, Egypt, and Palestine by Philip Nash was discussed in late 1918. See Fay, *War Office*, pp. 205-206.

In a letter to Murray, Robertson offered a glowing recommendation of Stewart and his mission:

Six months ago the railways in France were in a bad way. Today they are splendid, and this is due entirely to the fine railway work put in by people like Stewart. It is extraordinary what improvements can be made and how greatly the capacity of the line can be increased by men who really understand the job... Hear what Stewart and his people have to say and back them for all they are worth. I am sure you will be pleased afterwards. At any rate this was Haig's experience, and this is why I am sending Stewart to you.<sup>88</sup>

Stewart was able to draw on both his civilian expertise and his experience of military transport as Director of Light Railways and as a Deputy DGT. One of his recommendations advised that, if further construction was required, the 'policy adopted in France should be applied to Egypt'. This would require the provision of suitable equipment and a plant for 'modern railway construction'.<sup>89</sup>

The need for an overland supply route and the army's subsequent involvement in the Italian theatre led to the organisation of two transport missions to Italy. The first was under Sir Guy Calthrop, General Manager of the London and North Western Railway. Consisting of railway, naval, and army personnel, the delegation left London on 14 January 1917 to investigate the feasibility of a Cherbourg-Taranto overland supply route.<sup>90</sup> The mission was ultimately successful with the first passenger train leaving Cherbourg on 28 June 1917.<sup>91</sup> The second Italian mission was in response to reports of delayed shipping and congestion on the railways and at the ports.<sup>92</sup> Brodie Henderson, a well-known consulting civil engineer with a particular focus on railways, docks, and harbour construction, was in charge of the mission.<sup>93</sup> He was closely involved with work commissioned by British-owned Argentinian railway

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<sup>88</sup> IWM, Murray Papers, 79/43/3/6, Robertson to Murray, 12 May 1917.

<sup>89</sup> TNA, WO 106/720, Stewart (Railway) Commission, Précis of Report, July 1917, p. 4.

<sup>90</sup> TNA, CAB 24/7/11, 'Proposed Overland Supply Route to Salonica via Cherbourg and Taranto', 7 February 1917.

<sup>91</sup> TNA, CAB 24/23/55, Memo on Cherbourg-Taranto Route, Lord Derby to Cabinet, 17 August 1917, p. 261.

<sup>92</sup> TNA, WO 95/4252, IEF Lines of Communication War Diary, 28 December 1917.

<sup>93</sup> Colin M. Lewis, 'Henderson, Sir Brodie Haldane (1869–1936)', *Oxford Dictionary of National Biography*, Oxford University Press, 2004 <http://www.oxforddnb.com/view/article/55211> [accessed 1 Sept 2013]. Harry Livesey, the 'son' in Livesey, Son and Henderson, also served as Deputy Director of Inland Waterways and Docks at the War Office, 1916-1917.

companies, such as the Buenos Ayres Great Southern and the Central Argentine. Commissioned into the RE in 1914, he rose to become a Deputy DGT. Like Stewart, Henderson's civilian and military experience were used to great effect during his mission to Italy in December 1917. His observations highlighted future areas for concern, notably that the base depot at Arquata was too far back, which would cause a problem if a larger force deployed to Italy. He also advised that, 'from experience in France', additional railway sidings would be required to cope with increased traffic, thus necessitating the procurement of suitable material outside of Italy.<sup>94</sup>

Conducted on similar lines to Stewart's mission, Freeland's investigation in Mesopotamia in November 1917 raised a number of fundamental questions around the suitability of transport arrangements, notably the disconnect between India and the authorities in theatre.<sup>95</sup> Robertson requested Freeland personally in a letter to Haig:

We must have a man of some kind from you as no one else knows the question, and there is a certain amount of opposition in Mesopotamia and India against tackling the transportation question and introducing something like the system which has been found to work so admirably with you in France'.<sup>96</sup>

Maude welcomed Freeland's appointment admitting that 'good as our communications are considering the local conditions there is no doubt that they can be still further improved and developed, and obviously the more this is done on sound lines and with expert advice the better for the future of the Force'.<sup>97</sup>

Freeland was well suited to this appointment given his pre-war work with the Indian railways, coupled with his wartime experience of transport in France. It was his experience of the latter that led him to recommend the amalgamation of the Mesopotamian transportation

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<sup>94</sup> TNA, WO 158/853, Director General of Transport: Transportation questions from France to Italy and in Italy: Henderson Report, December 1917, pp. 1-4.

<sup>95</sup> TNA, WO 32/5209, Report of Commission appointed by Government of India to investigate Railway and River Transport Administration in Mesopotamia (Freeland Mission), Mance to Fay, 15 May 1918.

<sup>96</sup> LHCMA, Robertson Papers, 7/7/55, Robertson to Haig, 3 October 1917.

<sup>97</sup> LHCMA, Robertson Papers, 7/5/73, Maude to Robertson, 6 October 1917.



services under a single DGT.<sup>98</sup> This would reduce the pressure on the IGC, while providing a single technical head for all transport matters. Freeland's recommendations were well founded and influenced by best practice gathered from the Western Front. They also found support from Mance, then Director of Roads and Railways at the War Office, who agreed that 'a technical organisation' should be established to streamline the transport situation.<sup>99</sup> However, as Fay recalled, there was resistance to the appointment of a DGT by Lieutenant-General Sir William Marshall, and the QMG, India.<sup>100</sup> According to Lynden-Bell, acting as Deputy CIGS at the War Office, 'the DGT idea has been blown upon from France, and Haig says if he had his time again he would not have tried it'.<sup>101</sup> In spite of initial opposition, Major-General Raymond de Candolle was appointed DGT in Mesopotamia. To support him, Freeland was appointed to the Indian Railway Board to help streamline transport issues at the very top of the Indian army.<sup>102</sup> Freeland's appointment earned him 'the gratitude of the army' as a result of his 'zealous and unremitting efforts in developing the capacity of the railways in respect of military requirements'.<sup>103</sup>

In addition to these transport missions, the various expeditionary forces also used civilian experts for the construction and maintenance of canal defences, water pipelines, and railways.<sup>104</sup> In the case of the EEF, these particular issues required the extensive use of the Egyptian and Cyprus PWDs, the Cairo Water Company, and the ESR, along with independent consultants from Britain. There was a 'necessary dependence' on the existing civil machinery, coupled with the need to mobilise all available resources, both *matériel* and personnel, for the

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<sup>98</sup> TNA, MUN 4/6517, Report on work and future development of Basra and of the river and railway communication in Mesopotamia, April 1918, pp. 22-23.

<sup>99</sup> TNA, WO 32/5209, Freeland Mission, Mance to Fay, 15 May 1918.

<sup>100</sup> Fay, *War Office*, p. 162.

<sup>101</sup> Marshall, *Four Fronts*, p. 294; Fay, *War Office*, p. 162.

<sup>102</sup> De Candolle had been the War Office's transport advisor on the Military Mission to Romania. See TNA, CAB 24/14/38, Roumanian communication, Telegram, Sir G. Barclay conveying General R. de Candolle's transport report, 18 May 1917.

<sup>103</sup> *London Gazette*, Issue 31823, 12 March 1920, p. 3271. One of Freeland's colleagues on the Mesopotamian Transport Commission was E. A. S. Bell, a member of the ICE and a fellow member of the Indian Railway Board.

<sup>104</sup> Ulrichsen, *Logistics and Politics*, p. 59.

prosecution of war.<sup>105</sup>

The increased permeability between the military and civilian spheres was vital to the army's war effort in the east. This was notable with the construction of the Suez Canal defences in early 1916. As Murray remarked, the existing engineering staff of the British Force in Egypt was 'inadequate' to deal with the execution of extensive works relating to the defence of the Suez Canal.<sup>106</sup> The army, therefore, called upon the Egyptian PWD to 'provide a special staff to organise and carry out the work'.<sup>107</sup> The PWD's 'intimate cooperation' with the army made 'an accurate definition of the separate spheres of each almost impossible'.<sup>108</sup> Sir Murdoch Macdonald, Under Secretary of the Egyptian PWD, was appointed DDW, with the rank of colonel in December 1915.<sup>109</sup> Owing to the shortage of RE personnel at that time, Macdonald's staff consisted of seconded PWD officers and civil engineers who were given local and temporary commissions.<sup>110</sup> In all, seventy-eight technical and clerical members of the Egyptian PWD took part in the work on the canal defences.<sup>111</sup> Macdonald and his staff took over responsibility for 'the provision of landing stages and wharves on the Canal banks, roads, installation of water supply, and Engineer works at the Canal bases of supply'.<sup>112</sup>

Prior to his appointment as DDW, Macdonald had provided informal consultancy to the MEF, notably over the proposed development of a stone pier at Mudros in September 1915. Brigadier-General Ernest Paul, then DDW Helles, remarked on the 'friendly advice' given by Macdonald and his colleagues in this respect, but his later comments underscored the perceived

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<sup>105</sup> IWM, Murray Papers, 79/48/3, Official Papers 1915-1916, 'Memorandum on Martial Law in Egypt', 26 November 1916.

<sup>106</sup> IWM, Murray Papers, 79/48/2, 'Campaign in Egypt 1916: Report of Engineering Works', pp. 2-3.

<sup>107</sup> TNA, WO 161/65, Report on Water Supply to the Army in Egypt and Palestine, n.d, pp. 8-9.

<sup>108</sup> IWM, Murray Papers, 79/48/3, Official Papers 1915-1916, 'Memorandum on Martial Law in Egypt', 26 November 1916; E. H. Lloyd, 'Work in Connection with the Suez Canal Defences in 1916, which was undertaken by the Egyptian Ministry of Public Works Officials for and in Conjunction with the Royal Engineers', *MPICE* 207 (1919), p. 350.

<sup>109</sup> Macdonald served as a Resident Engineer on Black Isle Railway in Scotland before joining the Egyptian Government in 1898. He became Resident Engineer for the Aswan Dam in 1902 before becoming Director-General of Reservoirs, Ministry of Public Works in 1907. In 1912, he was appointed Under-Secretary of State for Public Works. It was in this capacity that he provided assistance to the British Force in Egypt.

<sup>110</sup> Institution of Royal Engineers, *History*, VI, pp. 175-176.

<sup>111</sup> Lloyd, 'Suez Canal Defences', p. 373.

<sup>112</sup> TNA, WO 161/65, Report on Water Supply to the Army in Egypt and Palestine, n.d, pp. 8-9.

ignorance of civil engineers when faced with military problems:

At any rate, what he [Macdonald] saw at Mudros, and what we were able to tell him, undoubtedly opened his eyes, and those of his friends, so that they, as Civil Engineers, can fully appreciate (*which I am sure they never did before*) the enormous obstacles and great difficulties that we have to overcome in this Campaign, from a Works point of view'.<sup>113</sup>

Although Paul expressed certain reservations towards the civil engineering profession, Macdonald proved his worth during his seven months as DDW. His staff gave 'valuable service and worked fast as a result of local experience, the ability to make the best use of contractors and the absence of financial restrictions'.<sup>114</sup> In June 1916, responsibility for the Canal road and water supply system was eventually taken over by RE staff. Macdonald withdrew from the work associated with the Suez Canal zone, relinquishing his position as DDW. In spite of this, he continued to provide advice and consultancy to the British Force in Egypt under both Murray and Allenby. Drawing on his pre-war experience of large scale irrigation projects, including the Aswan Dam, Macdonald, in conjunction with a number of other local and British experts, advised on the practical issue of water supply for the advance across the Sinai into Palestine.<sup>115</sup>

For the EEF, water supply was a considerable problem. In November 1915, Dr William Hume, Director of the Geological Survey of Egypt, had advised that fresh water might be obtained east of the Suez Canal.<sup>116</sup> Boreholes were unsuccessfully sunk, which necessitated the use of Nile water from the Sweetwater Canal and involved 'elaborate works' to remove impurities and parasites.<sup>117</sup> The Cairo and Alexandria Waterworks Companies and the Suez

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<sup>113</sup> TNA, WO 161/62, Personal letters and narratives (General E. M. Paul), Narrative, Dardanelles, July-November 1915, p. 23. Added emphasis.

<sup>114</sup> Institution of Royal Engineers, *History*, VI, pp. 175-176.

<sup>115</sup> Unknown, 'Obituary: Sir Murdoch Macdonald, 1866-1957', *PICE* 8 (1) (1957), pp. 115-117.

<sup>116</sup> Hume conducted a series of further reports for the EEF in January and July 1917 to determine water availability for future operations at Gaza and Beersheba. See TNA, WO 161/66, Report on the Water Supply of El Arish Region by W. F. Hume, c. February 1917; TNA, WO 161/67, Notes Regarding Water Supply in the Gaza and Wadi El Ghuzze Area by W. F. Hume, c. July 1917.

<sup>117</sup> For a detailed account of the Nile water supply, see F. W. Stephen, 'The Nile Water-Supply to Palestine for the Egyptian Expeditionary Force', *MPICE* 214 (1922), pp. 346-357.

Canal Company proved instrumental in this respect.<sup>118</sup> Murray highlighted the ‘invaluable service’ and ‘expert advice’ of the Director of the Cairo Waterworks Company, while Paul praised the able direction and assistance of the Alexandria Waterworks Company.<sup>119</sup> The Cairo Waterworks Company also undertook the design, construction, and erection on site of mechanical filters, settling tanks, and engines necessary for the purification of Nile water.

For the installation of its water supply system, the army subsumed civilian experts and elements of the local state apparatus into the military machine. However, like the transport missions, the army requested further independent expertise to examine and troubleshoot its work. The War Office despatched Sandeman to Egypt in November 1916 following Murray’s request for a technical expert of a ‘very high standard’ to advise on the quality and economy of the recently constructed pipeline.<sup>120</sup> A member of the ICE and an Associate Professor of Water Supply and Irrigation at the University of Manchester, Sandeman had designed and constructed supply works for local authorities, water boards, and companies throughout Britain.<sup>121</sup> His appointment showed that the civilian and military spheres could and, more importantly, did cross-fertilise. Sandeman’s report on the desert pipeline was largely favourable, noting that the work was ‘well carried out’ and that, given the rapidity of its construction, the results were ‘admirable’.<sup>122</sup> His recommendations included an examination of the effect of salt on the steel pipes, improvements to the intakes, and the amalgamation of all installations for the purification of water under one authority. The army took his recommendations seriously. Correspondence between GHQ EEF and its Engineer-in-Chief showed that Sandeman’s recommendations were put into effect as early as December 1916. These actions included the removal of vegetation and

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<sup>118</sup> Institution of Royal Engineers, *The Work of the Royal Engineers in the European War, 1914-19: Egypt and Palestine - Water-Supply* (Chatham: W&J Mackay & Co., 1921), pp. 46-47.

<sup>119</sup> IWM, Murray Papers, 79/48/2, ‘Campaign in Egypt 1916: Report of Engineering Works’, p. 5; TNA, WO 161/36, Letter No. 14A and supplement from the Director of Works (General E M Paul), August-September 1916.

<sup>120</sup> TNA, WO 161/65, Report on Water Supply to the Army in Egypt and Palestine, 1914-1918, n.d., p. 11

<sup>121</sup> ‘Obituary: Mr Edward Sandeman, 1862-1959’, *PICE* 14 (3) (1959), p. 323.

<sup>122</sup> TNA, WO 158/608, Engineer-in-Chief: Water supply on the Eastern Front: Report by Mr. Sandeman, December 1916.

the wiring off of intakes to prevent animals from entering or approaching the water.<sup>123</sup>

In addition to the canal defences and the installation of the Sinai water supply, civilian expertise was also harnessed for the construction of the desert railway. According to Ulrichsen, the assistance rendered by the ESR was the most important prop of the logistical network in both Egypt and Palestine.<sup>124</sup> As early as 1914, the ESR was asked to act as ‘general agent and storekeepers’ for the railways in the Mediterranean theatre of war. This initial role expanded in December 1915 following Macauley’s appointment to Director of Railway Transport with the rank of colonel.<sup>125</sup> Macauley’s dual appointment secured coordination between the civilian and military organisations. With his previous membership of the RE and his work on civilian railways, Macauley had the necessary experience to oversee railway construction in the desert. His two principal assistants, Major Robert Blakeney and Captain G. C. M. Hall, also had suitable pre-war experience. Blakeney had served with Macauley at Omdurman and had worked on the Sudan Military Railway under Girouard, while Hall had also seen service in the Sudan and had worked with Blakeney, Girouard, and Macauley on the 1896 Dongola Expedition.<sup>126</sup>

During the entire Egypt and Palestine campaign, 627 miles of standard gauge track were laid and eighty-six stations built under the direction of Macauley and the ESR.<sup>127</sup> It is little wonder that the British official history lauded Macauley as ‘having provided a network of lines as efficient as those in the European theatres’.<sup>128</sup> Allenby also singled out Macauley’s work for praise. In a letter to Lord Curzon, he wrote that Macauley ‘speedily proved that the responsibilities which had been entrusted to him by the War Office had not been misplaced’, and that he ‘proved himself more than equal to the task’.<sup>129</sup> However, such praise was not

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<sup>123</sup> *Ibid.*

<sup>124</sup> Ulrichsen, *Logistics and Politics*, p. 59.

<sup>125</sup> TNA, FO 371/3713, Memo on Work by Egyptian Government during the war, 20 January 1919, p. 249.

<sup>126</sup> Kirke-Green, ‘Canada in Africa’, p. 215; E. A. Wallis Budge, *The Egyptian Sudan: Its History and Monuments*, II (2 vols., New York, NY: Cosimo, 2010 [1907]), p. 463.

<sup>127</sup> Institution of Royal Engineers, *History*, VI, p. 410.

<sup>128</sup> C. Falls, *Official History of the Great War: Military Operations, Egypt & Palestine*, II (2 vols., London: HMSO, 1930), p. 439.

<sup>129</sup> NAM, Macauley Papers, 8008-72, Allenby to Curzon, 30 August 1922.

universal. Given his existing reservations towards civilian expertise, Paul believed Macauley's dual role to be 'the cause of much trouble'. He argued that 'the Works Directorate was seriously handicapped at not infrequent intervals through the Manager of the ESR', and that 'increased military efficiency would have resulted had Egyptian State Railways been confined to transport of Military Stores'.<sup>130</sup>

As the previous section has shown, the army made considerable use of external expertise. This next section will examine the army's process for identifying and transferring skilled civilians from within its organisation. Perceptions of the army's attitude towards personnel selection were not universally positive, while policies that involved 'combing out' men from industry were unpopular, particularly with the trade unions.<sup>131</sup> Much like its process for sharing knowledge, the army could not afford to pursue a wholly bureaucratic or, conversely, a wholly personalised approach. The shift to a war economy in Britain, coupled with the army's expansion, required the development of a formal process for identifying and transferring skilled personnel. However, this process also had to be sensitive to operational requirements.

The development of the army's personnel selection process has drawn unfavourable comparisons with the US army's forward thinking approach, particularly with the latter's employment of psychologists and businessmen on its Classification of Personnel committee. Established in 1917, the committee provided 'an instrument to increase the value of the army's man-power through securing the most effective placement of each man'.<sup>132</sup> Original membership of the committee consisted almost wholly of psychologists, but a number of business specialists were appointed to ensure the 'successful prosecution of the work'.<sup>133</sup> These included representatives from Winchester Repeating Arms Company, Western Electric,

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<sup>130</sup> TNA, WO 161/60, Letter No. 36 from the Director of Works (General E. M. Paul), 'Memoranda on Engineer Stores', February 1919, p. 142.

<sup>131</sup> G. H. Cassar, *Lloyd George at War, 1916-1918* (London: Anthem, 2011), p. 121; D. R. Woodward, *Lloyd George and the Generals* (London: Frank Cass, 2004), pp. 283-284.

<sup>132</sup> R. M. Yerkes, 'Report of the Psychology Committee of the National Research Council', *Psychological Review* 26 (2) (1919), p. 100.

<sup>133</sup> W. V. Bingham, 'Army Personnel Work', *Journal of Applied Psychology* 3 (1) (1919), p. 3.

Southern Bell Telephone, and Pennsylvania Railroad.<sup>134</sup> These individuals placed their ‘talent and experience’ of ‘putting skilled workers where they were most needed’ at the service of the War Department.<sup>135</sup> Drawing on this scientific and business expertise, the committee designed a programme to help army trainers identify skilled men from the incoming masses of farmers and labourers. As Jennifer Keene argues, the US army welcomed the scheme due to ‘unexpected problems such as finding enough men with clerical skills to staff division headquarters’.<sup>136</sup> The committee’s scheme was complex and included activities such as the compilation of an index of occupations, trade testing, personnel specifications, and the preparation of tables of occupational needs for each sort of platoon, company, or regiment.

When developing its selection scheme, the US army conducted a detailed study of the British personnel organisation.<sup>137</sup> Its findings suggested that the British organisation ‘in some respects is far superior to ours. Special reports... covered their [the British] whole program of recruitment, classification, trade-testing, assignment and transfer, industrial furloughs, weekly consolidation and analysis of strength reports’.<sup>138</sup> American delegations were despatched to Britain to observe and report on its recruitment programme. The aim was to gather suggestions ‘that looked toward the improvement of the personnel system in America, in order that it might function more effectively in France’.<sup>139</sup> The US army’s findings suggest that the British had a centralised and well-defined policy for personnel selection.<sup>140</sup>

The British army initially embarked on a highly personalised approach, while

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<sup>134</sup> United States Adjutant-General’s Office, *The Personnel System of the United States Army*, II (2 vols., Washington DC: GPO, 1919), p. 19.

<sup>135</sup> W. V. Bingham, ‘Army Always on Lookout for Specialists’, *New York Times* (14 April 1918). The US army was also interested in scientific management, notably Taylorism. Upon America’s entry into the war, the Chief of Ordnance, William Crozier, brought into his department ‘every member of the Taylor Society on whom he could lay his hands’. See R. Kanigel, *The One Best Way: Frederick Winslow Taylor and the Enigma of Efficiency* (New York, NY: Viking Penguin, 1997), p. 487.

<sup>136</sup> J. D. Keene, *Doughboys, the Great War and the Remaking of America* (London: Johns Hopkins University Press, 2001), p. 29.

<sup>137</sup> There was a good deal of close working between the US and British governments relating to recruitment. The British government was aware of the types of intelligence and early psychometric testing utilised by the US. See TNA, NATS 1/873, America New Recruiting System, 1917.

<sup>138</sup> Bingham, ‘Army Personnel Work’, p. 9.

<sup>139</sup> United States Adjutant-General’s Office, *Personnel System*, I, pp. 381-382, 593.

<sup>140</sup> Unfortunately, the original report cannot be traced in UK archives.

simultaneously negotiating both industrial demands and an overtaxed army bureaucracy.<sup>141</sup> However, the process was far from effective at first. The army's policy passed through three overlapping stages: ad hoc and personalised in 1914-1916, semi-formalised from 1916-1917, before the eventual establishment of formal departments and processes from 1917 onwards.

The early stage of this process mirrored the government's broader manpower problem. As Grieves has argued, the ideal manpower planning machinery did not exist early in the war because 'the relative priorities of aspects of the war effort had not been determined'.<sup>142</sup> The government strove to meet GHQ's manpower demands, ensuring that young fit men were released from industries for military service. Major-General Sir Robert Hutchison, future Director of Organisation, recalled that the government, 'without knowledge of the difficulties of personnel, drew into the military net every man who would voluntarily come forward'.<sup>143</sup> As a result, some men decided to enlist in local infantry units, denying the technical branches access to their skills. There were 'skilled mechanics and apprentices... laborers, university graduates, politicians' all serving in infantry formations.<sup>144</sup> At this early stage of the war, there was no uniform policy towards the transfer or identification of skilled workers. This lack of uniformity not only began to have a deleterious effect on British industry, but it also caused problems for RE and railway units that were expanding to meet the army's demands. According to Lyndall Urwick, a champion of scientific management, this 'unbusiness like omission to select and sort candidates intelligently on the basis of their previous record' led to chaos and inefficiency. The officering of the army could only be rescued if 'ability (including well-proved ability in previous civil life) is diligently and continually searched for'.<sup>145</sup> If not then the army would do worse than lose battles: it might lose the war. Though not as apocalyptic in his view as Urwick,

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<sup>141</sup> In the US army, it often fell to local commanders to devise their own schemes for absorbing new recruits. Officers in the 89th Division, for example, used their knowledge of regional industries to assign men. See Keene, *Doughboys*, pp. 29-30.

<sup>142</sup> K. Grieves, "'Total war?'" The Quest for a British Manpower Policy, 1917-18', *Journal of Strategic Studies* 9 (1) (1986), p. 80.

<sup>143</sup> United States Adjutant-General's Office, *Personnel System*, I, p. 684.

<sup>144</sup> *Ibid.*

<sup>145</sup> L. Urwick, 'The Real Ground for Alarm', *The New Statesman*, 30 October 1915. I am grateful to Dr Christopher Phillips for uncovering the identity of the author.



Monash lamented the haphazard nature of this selection process in AIF formations in April 1915, arguing that:

... if allowed a free hand in units, the numbers required could be raised. Many men have come to us who have applied for transfer and been refused. While fully recognising the reluctance of COs to part with good men trained by themselves, I would ask that in the interests of the whole Force, an appeal should be made to COs to allow suitable men to transfer.<sup>146</sup>

The possibility for transferring was subject to the operational demands of the various forces. The army was disinclined to enforce hard and fast rules when it came to transferring men from infantry to technical branches. As Hutchison noted, 'if you want to pull a man away from a fighting organization, it is charged that you are interfering with... a General's winning this or that battle'.<sup>147</sup> It was only when the situation was deemed critical that steps were taken and the General Staff forced to intervene. In the case of military railways, the possible extension of advanced railheads in early 1916 was contingent on additional railway troops, and that these could 'only be formed by the transfer of skilled railway men from other arms, and by the raising of additional Pioneer or Labour Battalions for railway purposes'.<sup>148</sup> According to an ICE report, this led to the transfer of 1,100 drivers and firemen who were serving in units in France to work on the military railways.<sup>149</sup> At this stage of the war, the administrative infrastructure for checking previous experience and technical qualifications was in its infancy. The army had to contact employers in order to validate individual qualifications.

This 'needs must' policy was also supported by the use of GROs as a way of identifying men with a particular trade. GROs contained information relating to all and sundry, including military publications and regimental dinners. As well as acting as a source of general information, they also contained transfer notices. With such a wide reach, the GROs were a

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<sup>146</sup> AWM, Monash Papers, 3DRL/2316 3/7, Australian and New Zealand Division conference notes, n.d. (c. April 1915).

<sup>147</sup> United States Adjutant-General's Office, *Personnel System*, I, p. 685.

<sup>148</sup> TNA, PRO 30/66/9, Papers of Brigadier-General Sir H. Osborne Mance, QMG2 to Mance, 23 January 1916; ICEA, OC 4277, H. A. Ryott, 'The Provision of Personnel for Military Railways in the War of 1914-1919' (1920), p. 8.

<sup>149</sup> ICEA, OC 4277, Ryott, 'Military Railways', p. 8.

useful mechanism for disseminating transfer requests. In October 1915, an MEF GRO requested a ‘lithographic draughtsman – preferably with a knowledge of map work’ for GHQ’s Printing Section. OCs of units were invited to submit names of any men ‘desirous of and are recommended for this employment’.<sup>150</sup> A similar request can be found in an EEF GRO from September 1916:

Blacksmiths, Wheelers, Coppersmiths, Tinsmiths, Electricians, Springsmiths and Vulcanisers are urgently required for transfer to the Mechanical Transport Branch of the Army Service Corps. Men who wish to transfer and are recommended will be sent... for trade test.<sup>151</sup>

This continuing ad hoc approach added fuel to the fire in Whitehall, leading to calls for the formalisation of the selection process. Dr Christopher Addison, Parliamentary Secretary to the Ministry of Munitions, criticised the army’s ad hoc method, noting ‘there appears to be very little doubt that the War Office could get all the men they want if they combed the Armies thoroughly and systematically; and I think they ought to help themselves before coming down on us for men...’<sup>152</sup> Concerns that skilled workers were not being used effectively by the army was a long-standing issue and one heightened by competition between the War Office and the Ministry of Munitions. As Grieves has argued, the ‘most contentious issues which had arisen between the two departments were the military requirement for skilled engineers and the release of men from the army for civil industries’.<sup>153</sup> In July 1916, the two departments came to an agreement whereby the munitions industry would make up any deficit that might occur in the preliminary military demand for artificers for the army’s technical corps.

Ongoing negotiations with the trade unions, notably the Amalgamated Society of

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<sup>150</sup> TNA, WO 123/281, GRO Mediterranean Expeditionary Force, 558, 13 October 1915.

<sup>151</sup> TNA, WO 123/282, GRO Egypt, 1675, 6 September 1916.

<sup>152</sup> Quoted in K. Grieves, *The Politics of Manpower 1914-18* (Manchester: Manchester University Press, 1988), p. 32.

<sup>153</sup> *Ibid.*

Engineers [ASE], further compounded competition between the two departments.<sup>154</sup> After a series of deputations, the government and the ASE reached a formal agreement in November 1916, which stated that the ‘provision of skilled mechanics for the army will in future be made by the Ministry of Munitions’.<sup>155</sup> The government agreed not to apply compulsion to skilled men, but hoped instead to obtain the required men for service in the technical corps through voluntary means. The trade unions agreed to ‘do their utmost to provide the Ministry of Munitions with skilled men, who will undertake to serve... either in the Artificers’ Corps of the Army or as War Munitions Volunteers’.<sup>156</sup> The army was forced to rely on employers and lists of skilled men provided by trade unions as they endeavoured to comb out men for the technical corps. According to Grieves, only 9,600 men were reallocated to skilled work in the army in November and December 1916.<sup>157</sup>

Pressure from the ASE, other trade unions, and voices within the army itself suggested a process far removed from the systematic one lauded by the US army. In the first years of the war, the army relied considerably on informal transfers either by volunteering or through an individual’s own personal connections. This was particularly true for individuals who were not members of trade unions. Often the expertise of these individuals was discovered through interpersonal relationships or direct petitions to higher formations and senior generals. The EEF, for example, received a number of requests for skilled personnel. In March 1916, the BSF requested from the EEF ‘a wheeler with a knowledge of ships carpentering’ to work on its motor boats; while in July of the same year, the EEF received a request from the Western Frontier Force asking for ‘2 vulcanisers, 1 MT Fitter and a Private with a knowledge of

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<sup>154</sup> TNA, MUN 5/57/320/16, Papers on Ministry of Munitions negotiations with Amalgamated Society of Engineers, November 1916; TNA, MUN 5/56/320/18, Minutes of proceedings at a deputation from representatives of engineering trade unions, November 1916.

<sup>155</sup> TNA, MUN 5/57/320/16, ASE Pamphlet, 20 November 1916, p. 2.

<sup>156</sup> *Ibid.*

<sup>157</sup> Grieves, *Politics of Manpower*, p. 98.

storekeeping to be sent to the Advanced MT depot'.<sup>158</sup> These ad hoc requests were usually dealt with by GHQ's third echelon, which had responsibility for personnel.

In a number of cases, individual generals intervened. Cowans, for example, was aware that the army needed to identify and utilise men with the appropriate skills for the task in hand. He was 'not hide-bound by any War Office red tape' and he realised, particularly where supply depots were concerned, that 'they must have men with business, rather than military, experience'.<sup>159</sup> Although, as we saw earlier, Cowans expressed some reservation over civilian expertise, he was still keen to secure 'men of business'. Writing to General Sir Edward Altham (IGC MEF) in November 1915, Cowans mentioned two territorial officers in the MEF who would be useful for labour and supply. The first officer, Pearson, was 'accustomed to dealing with large questions in regard to navvies'. According to Cowans, he had 'managed all kinds of arrangements – the organisation of 50,000 men etc – so anything we [the Army] do ought to be child's play'.<sup>160</sup> Altham heeded his advice, requesting Pearson to help with labour organisation in the MEF. The second officer mentioned by Cowans was Major Vernon Willey, later 2nd Baron Barnby, an officer in the Nottinghamshire Yeomanry. Willey had 'managed a very big business in America, and was manager of that Business at 25', and 'absolutely wasted as a would be soldier'.<sup>161</sup> Cowans was keen to impress on senior generals in both the MEF and BSF that 'more than ever I am sure you ought to get business men'. This was underscored by the fact that the French army had 'elbowed us out considerably' owing to its 'enormous advantage of having civilianly trained specialists to draw on'.<sup>162</sup> Cowans went on in stronger terms:

This is exactly what we keep on rubbing into you, as I am sure, when we hear of a few exceptions, there must be scores more in the Territorials and Yeomanry that are with you, like Pearson, and that man Willey – who would do splendidly for the Ordnance Department for the Base Depot at Alexandria, with his

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<sup>158</sup> TNA, WO 95/4395, Director of Supplies and Transport EEF War Diary, 20 March 1916 and 16 July 1916.

<sup>159</sup> Chapman-Huston and Rutter, *Cowans*, II, p. 55.

<sup>160</sup> TNA, WO 107/43, Correspondence between IGC MEF to QMG of the Forces, Cowans to Altham, 12 November 1915.

<sup>161</sup> *Ibid.*, Cowans to Altham, 23 October 1915.

<sup>162</sup> *Ibid.*, Cowans to Altham, 13 November 1915.

business training in woollen manufactures, etc. These are the sort of men that we want to get hold of, there is no doubt about it...<sup>163</sup>

Through Cowans and Altham's efforts, Willey was transferred from the front line to become Assistant Director of Equipment and Ordnance, and then Controller of Wool Supplies at the War Office. Willey worked alongside other civilian soldiers who had been transferred from the front line, including Captain John Bland, a Kitchener army officer and partner of the wool company Bland and Moore of Bradford, and Major John Sexty, a territorial officer and partner in the currier firm Messrs Sexty Bros of Winchcomb.<sup>164</sup>

In addition to individual recommendations from senior generals, some soldiers took it upon themselves to offer up their pre-war skills voluntarily. Adrian Hill, one of the official war artists, combined his drawing abilities with his work in a sniping and scouting section in the Honourable Artillery Company; while W. G. Newton, an officer in the Artists' Rifles and a recently qualified architect, proposed that it was possible to teach a novice how to draw a battle landscape after just one hour's lecture and two days drawing in the field.<sup>165</sup> Newton's commercially published *Military Landscape Sketching and Target Indication* contained pragmatic advice, influenced by his own architectural experience of design principles and draughtsmanship. However, this pragmatic, individualised approach masked the reality of a failing personnel system. Addison had been right to criticise the War Office's poor attempts at 'combing out'. It was neither thorough nor systematic. By late 1916, both the military and industry were suffering severely from its effects. Men were required for work in munitions factories and shipyards back in Britain, as well as in the army's technical branches. These effects were also felt in the army's subsidiary theatres. In a letter to Scott-Moncrieff, Paul

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<sup>163</sup> *Ibid.*

<sup>164</sup> TNA, WO 107/43, Inspector General of Communications MEF Letters, Cowans to Altham, 13 November 1915; "BARNBY," in *Who Was Who* (London: A & C Black, 1920–2008); online ed., (Oxford: OUP, 2012); <http://www.ukwhoswho.com/view/article/oupww/whowaswho/U161763> [accessed September 9, 2013]; TNA, MUN 4/6471, Department of Surveyor-General of Supplies, 'List of businessmen assisting Contracts RMS', n.d. (c.1917).

<sup>165</sup> P. Gough, *A Terrible Beauty: British Artists in the First World War* (Bristol: Sanson & Company, 2010), pp. 81-82; W. G. Newton, *Military Landscape Sketching and Target Indication* (London: Hugh Rees, 1916), p. 5.

remarked that:

... I frequently come across officers and other ranks serving in the infantry, who in civil life are engineers, contractors, clerks of works and foremen. In some cases they have been lent to us as a temporary measure by arrangement, and we have been very glad of their services; they have done excellent work. But invariably after a period their commanding officers request their return.<sup>166</sup>

It was clear that a reorganisation of the army's personnel machinery was long overdue.

The formalisation of the personnel process came about in early 1917 with the establishment of the Department of Organisation at the War Office under Major-General Sir Robert Hutchison. Spearheaded by Robertson, this department was given a freehand to use whatever means necessary to ensure that personnel was placed on an even footing. It had a dual role in that it had to identify personnel to be transferred back to civilian industries, whilst also identifying individuals whose skills were not being put to good use in the army. At first, the department's process appeared to be an extension of the ad hoc years of 1914-1916 with carefully worded letters written to commanders, asking that they cooperate by detailing the skilled tradesmen serving in their formations. However, it was found that commanders were often concealing the true number of tradesmen because they did not want to lose them to industry or the technical branches. This required Hutchison and his staff to gather that information in an independent way, leading to the establishment of a card index system in March 1917.

The department's card index was stored in London and recorded each man's physical location in the army, his civilian profession, who he was employed by, his previous two employers, and his home address.<sup>167</sup> Whenever a man moved within Britain or overseas, his card was moved correspondingly to indicate where he went. This card index system was also trailed within each soldier's Army Book. In March 1917, Army Order 93 demanded that each soldier's 'Industrial Group' and trade were to be recorded in his Army Book. There were forty-one

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<sup>166</sup> TNA, WO 161/42, Letter No. 19 and supplement from the Director of Works (General E. M. Paul), Paul to DFW, 8 February 1917, p. 83.

<sup>167</sup> United States Adjutant-General's Office, *Personnel System*, I, p. 688.

recognised industrial groups, including ‘boot and shoe makers’, ‘dock wharf and labourers’, and ‘commercial and clerical occupations’.<sup>168</sup> Much of this raw data, however, relied on accurate and timely returns from the various units both at home and abroad. The problem with returns was the sheer number. Some formations reported having to complete thirty to forty returns per week to different branches.<sup>169</sup> This duplication of effort was eventually overhauled, leading to the development of a ‘consolidated return’. This return was ‘made as far as possible to give all the information that was required by the various branches and departments’.<sup>170</sup> The return was perforated allowing different branches to tear off the portion that related to their needs. These administrative measures were routine in the business world. The use of pre-printed forms, card indexes, and vertical filing systems were designed to increase efficiency.<sup>171</sup> They allowed for the combination of information on a single subject into a single, centralised storage system that was organised to suit the needs of those using them.

These administrative measures were not limited to the Department of Organisation either. As Beach has shown, GHQ was beginning to embrace information technology for intelligence analysis, utilising the expertise of the Prudential Assurance Company and its Powers Samas tabulating machines to process German casualty data.<sup>172</sup> The ‘science of statistics’ was also used to great effect, particularly for supply and transport purposes. Sir George Beharrell, a pre-war colleague of Geddes and statistician to the Transportation Directorate, emphasised the ‘impossibility of successfully directing large organisations’ if statistical information was not forthcoming. Statistics told ‘each responsible officer what he was doing, whether he was going back or going forward, and how he compared with his opposite

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<sup>168</sup> TNA, WO 123/59, Army Orders (War Office), AO 93 Record of Occupation in Civil Life, March 1917, p. 17.

<sup>169</sup> United States Adjutant-General’s Office, *Personnel System*, I, p. 689.

<sup>170</sup> *Ibid.*, p. 690.

<sup>171</sup> J. Yates, ‘Investing in Information: Supply and Demand Forces on the Use of Information in American Firms, 1850-1920’, in P. Temin (ed.), *Inside the Business Enterprise: Historical Perspectives on the Use of Information* (Chicago, IL: University of Chicago Press, 1991), pp. 122, 126-127; W. D. Wigent, B. D. Housel, and E. H. Gilman, *Modern Filing and How to File: A Textbook on Office System* (3rd edn., Rochester, NY: Yawman and Erbe, 1920), pp. 59-61.

<sup>172</sup> Beach, *Haig’s Intelligence*, p. 176; L. Dennett, *A Sense of Security: 150 Years of Prudential* (Cambridge: Granta, 1998), pp. 230-232.

number in other places'.<sup>173</sup> Such accurate information led to increased efficiency, particularly at the docks, on the railways, and on the inland waterways. This emphasis on efficiency was evident in other parts of the army both on and beyond the Western Front. In the EEF, the ASC's Motor Transport branch transferred from a ledger-based accountancy system to a card index system in August 1916 for the 'accurate working of receipts, demands, issues, and stock-keeping'; while the army's Labour Directorate, established in 1917 under Colonel Edward Wace, utilised principles of statistical forecasting and scientific management to understand labour requirements, and measure and improve output.<sup>174</sup>

Although the army had developed a system for identifying the professions and numbers of its personnel, it also had to ensure that these men were proficient in their stated trade. The Trade Test Centre at Woolwich verified this proficiency.<sup>175</sup> Orders were issued for skilled men of engineering trades, including new recruits and those serving in non-technical units, to be sent to Woolwich for practical testing. Specialist liaison officers were attached to the centre for the purpose of examining and selecting men suitable for technical work. Each man was tested and either passed as skilled or proficient and posted to a branch in which his qualifications could be most fully employed. For the military railways, large numbers of men were obtained through this measure, amounting to 2,550 in 1917 and 3,805 in 1918.<sup>176</sup> If a soldier was rejected as unskilled, he was either returned to his unit or posted to a technical branch as a pioneer.<sup>177</sup>

Though trade testing provided a useful way of confirming a soldier's qualification, there were some instances where certain skills were not required. These episodes were highly contentious with the potential to foment unrest. This was particularly acute in late 1916 at the

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<sup>173</sup> TNA, ZPER 9/32, G. Beharrell, 'The Value of Full and Accurate Statistics', *The Railway Gazette* (September 1920), p. 37.

<sup>174</sup> G. E. Badcock, *A History of the Transport Services of the Egyptian Expeditionary Force, 1916-1917-1918* (London: Hugh Rees, 1925), p. 273; TNA, WO 107/37, Report on work of the Labour force during the war, November 1919, pp. 134, 170 and Appendix Y; N. J. Griffin, 'Scientific Management in the Direction of Britain's Military Labour Establishment during World War I', *Military Affairs* 42 (4) (1978), pp. 197-198.

<sup>175</sup> Command Trade Test Centres at a regional level were developed as the war progressed.

<sup>176</sup> ICEA, OC 4277, Ryott, 'Military Railways', p. 9.

<sup>177</sup> *Ibid.*



height of the army's personnel crisis. A number of MPs expressed consternation that 'the services of a number of men who have passed a trade test and obtained a skilled certificate are not utilised at all on skilled work'.<sup>178</sup> In response, Henry Forster, Financial Secretary to the War Office, outlined his department's policy towards skilled volunteers:

Men who have passed trade tests are posted to units in which their technical skill can be utilised *so far as such tradesmen are required in the Army*. If the number of tradesmen in any particular trade is in excess of the numbers of that trade required in the Army the surplus men are utilised in other ways for which they may be suited. This does not, of course, mean that there will not be at any given moment and in any given unit tradesmen who are not engaged in their trade... it is a matter of progressive adjustment.<sup>179</sup>

The War Office's policy on this matter was formalised in an Army Council order in August 1917, which stated that no tradesman who possessed a skill required by a technical corps should be allowed to remain in a unit in which his skill was not being utilised.<sup>180</sup> However, this did little to reduce concern. In early May 1918, one Private Harmer had voluntarily joined the RAF as a mechanic. He was 'given to understand that he would be sent to Liverpool and from there to a trade centre to pass a test'. Instead, he was 'put straight into the Infantry'.<sup>181</sup> Harmer's plight was debated in the House of Commons. The MP who raised the matter argued that there had been 'hundreds of similar instances'. In response, James Macpherson, Under Secretary of State for War, replied that as Harmer was a 'turner', and that there were 'no requirements for men of this trade at the present time', he was placed in an infantry unit in accordance with his medical category.<sup>182</sup> It would be easy to use Harmer's case as a stick with which to beat the army's personnel system. Instead, it suggested that the army was acutely aware of its occupational needs.

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<sup>178</sup> *Hansard*, 'Skilled Men', House of Commons Debate, 8 November 1916, vol 87 c177.

<sup>179</sup> *Ibid.* Added emphasis.

<sup>180</sup> TNA, WO 293/7, Army Council Instructions (War Office), ACI 1303, 22 August 1917; *Hansard*, 'Ministry of Munitions', House of Commons Debate, 28 June 1917, vol 95 cc620-1.

<sup>181</sup> *Hansard*, 'Voluntary Enlistment (Skilled Men)', House of Commons Debate, 13 May 1918, vol 106 c52W.

<sup>182</sup> *Ibid.*

The army's operational requirements would remain a constant source of friction between the government and trade unions throughout the war. In its November 1916 agreement with the ASE, the government pledged that 'every possible effort' would be made to transfer skilled men to mechanical units.<sup>183</sup> However, in September 1917, the ASE highlighted the 'serious position' of skilled men being posted to line regiments, rather than technical branches. According to the ASE, the government and the army were renegeing on publicly agreed assurances. It argued that it could place no confidence in the government, the Ministry of Munitions, or the employers themselves.<sup>184</sup> Although there were measures in place to mitigate this problem, a representative of the War Office referenced 'circumstances of a special kind' that would prevent a commander from taking a man 'out of a fighting unit and put[ting] him to his trade'.<sup>185</sup> The army 'actively pursued' the transfer of skilled men, but this was at the whim of the 'prevalent military situation'.

The eventual establishment of a systematic personnel policy within the army was a welcome event. It was necessary and long overdue. However, that is not to say that its initial ad hoc approach was a complete fiasco. The establishment of the IWT section on the Western Front, for example, owed its existence to a combination of both ad hoc and systematic methods. As we have seen, Commander Gerald Holland had highlighted the need for the IWT in late 1914. Despite initial resistance, the IWT in France was inaugurated in January 1915 under the Director of Railways with an establishment of thirty-six officers and 654 ORs.<sup>186</sup> As the newly appointed Deputy Director IWT, Holland was tasked with recruiting skilled personnel. His first appointments were highly personal, including three former Royal Indian Marine officers, and fifty marine and administrative personnel from the London and North Western Railway at

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<sup>183</sup> TNA, MUN 5/57/320/16, Agreement between Government and ASE, 20 November 1916.

<sup>184</sup> TNA, MUN 5/57/320/38, Minutes of conference work Amalgamated Society of Engineers on skilled men for Army technical units, 11 September 1917, p. 4.

<sup>185</sup> *Ibid.*

<sup>186</sup> TNA, WO 158/851, History of the Inland Water Transport Directorate, pp. 8-9, 14. By December 1918, the IWT in France totaled 187 officers and 7469 ORs.

Holyhead.<sup>187</sup> Throughout January 1915, Holland interviewed a number of individuals – both civilian and military – for employment in the IWT. These men included a civil engineer, a railway rolling stock engineer on the Dublin and South East Railway, as well as individuals with experience of river and railway transport on the Gold Coast and in Nigeria respectively.<sup>188</sup> Out of the original thirty-six officers, twenty-one were civilians with the rest drawn from a mix of infantry, ASC, RE, Royal Indian Marines, and the Officers' Training Corps.<sup>189</sup> For Holland, his priority was ensuring the best man for the job irrespective of background. The variety of professions that made up the IWT officer corps was mirrored in the trades of the ORs. There was an 'active campaign' for the enlistment of skilled workers from the Thames and the various British sea ports. Among the ORs enlisted were:

... seamen, lightermen and watermen, marine and motor engineers and firemen for manning the various types of craft; steel work erectors, divers, masons, blacksmiths, carpenters, shipwrights, and the numerous other trades required in connection with the construction work on the waterways themselves... electricians, telephone linesmen and instrument makers for dealing with the electrical and telephone equipment, and clerical staff for the officers at HQ and elsewhere.<sup>190</sup>

As the IWT required men with 'special qualifications not possessed by the ordinary Royal Engineer', these individuals received the highest rates of engineer pay (2/- a day) instead of the rates usually given to an RE recruit.<sup>191</sup>

Although Holland continued to direct IWT operations on the Western Front, the responsibility for transport requirements at the War Office needed to be streamlined. As a result, the Railway Section at the War Office was subdivided into two separate Assistant Directorates for Railways and IWT in spring 1916.<sup>192</sup> The latter was run by Brigadier-General Albert Collard, formerly senior executive engineer on the Baro-Kano Railway (1908-1912) and

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<sup>187</sup> *Ibid.*; TNA, CAB 45/205, Diary of Lieutenant-Colonel G. E. Holland IWT, 13 January 1915.

<sup>188</sup> TNA, CAB 45/205, Holland Diary, 19-22 January 1915.

<sup>189</sup> TNA, WO 32/5162, 'Particulars of IWT Officers', 19 December 1914.

<sup>190</sup> TNA, WO 158/851, History of the Inland Water Transport Directorate, p. 19.

<sup>191</sup> TNA, T 1/11761 [3434], Inland Water Transport Sections for Service on Continent - Rates of Pay, Secretary of Treasury to Secretary of War Office, 10 February 1915.

<sup>192</sup> Institution of Royal Engineers, *History*, V, p. 126.

Director of Surveys (1912-1914) in Northern Nigeria.<sup>193</sup> The Assistant Directorate IWT was subsequently expanded into a full directorate under Geddes' reorganisation. Initially, the directorate dealt with the provision of materials and supplies for IWT on the Western Front. However, in summer 1916, all non-transport work in Mesopotamia came under the directorate's purview with Egypt, Salonika, and the other theatres following suit from 1917 onwards.<sup>194</sup> This allowed for the coordination of *matériel* and personnel across the various operational theatres. Mesopotamia benefitted from this coordination and from the War Office's decision to despatch Brigadier-General W. H. Grey to overhaul its river transport in July 1916.<sup>195</sup> Grey was a civilian who had run a large commercial firm in West Africa before the war. He was granted a temporary commission in the RE and directed to advise on the quality of river transport in Mesopotamia. Grey put together a talented staff drawn from a variety of professions and trades connected with the river services and, by December 1917, the IWT was operating a fleet of 1,266 vessels.<sup>196</sup> His value did not go unnoticed by the army. Recalled for service in Europe in May 1917, he played a substantial role as a Deputy DGT, organising the Lines of Communication of the British forces sent to Italy. This role led to his subsequent appointment as DGT in November 1917 where he worked closely with Brodie Henderson on the latter's transport mission to the Italian front.

The army recognised the importance of civilian expertise to the efficient running of the military machine. It was not exclusively a wartime phenomenon, but based on a mutually beneficial, cooperative process that had been in existence for over fifty years. However, as Heather Jones has argued, 'the soldier-civilian relationship in warfare had never been so intermeshed as during

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<sup>193</sup> Collard held the position of Director of Inland Waterways and Docks from 1916-1917 until his promotion to Deputy Controller Auxiliary Shipbuilding at the Admiralty. Brigadier-General A. S. Cooper was appointed as DIWD following Collard's promotion. Cooper was employed on the Uganda Railway (1897-1908), Lagos Railway (1908-1912) and was subsequently appointed General Manager, Nigeria Railway (1912-1916) before taking up the role as DIWD.

<sup>194</sup> Institution of Royal Engineers, *Expansion of the Corps*, p. 32.

<sup>195</sup> L. J. Hall and R. H. W. Hughes, *The Inland Water Transport in Mesopotamia* (London: Constable and Company, 1921), p. 11.

<sup>196</sup> Hall and Hughes, *Water Transport*, p. vii; Ulrichsen, *Logistics and Politics*, p. 53.

1914-1918 – nor the combatant-civilian distinction so blurred’.<sup>197</sup>

The army’s decision to look beyond its boundaries and learn from non-traditional sources suggests an adaptive organisation. The successful use of civilian expertise was, in part, due to the continuing importance of personal connections and patronage within the army. As Foley has argued, this meant that ‘radical ideas and far-reaching changes would be considered, if not always welcomed’.<sup>198</sup> Unsurprisingly, there were pockets of resistance to, and suspicion of, civilian expertise. This was a natural response to knowledge that came from outside the immediate organisation. However, on the whole, civilian advice was positively received and was promoted at the highest levels, notably by Cowans, Haig, and Robertson. The process for identifying and transferring individuals, however, was far more fraught. Such a process had to look to future needs, while attempting to rectify past mistakes. Similar to its process for sharing knowledge, the army could not prioritise a wholly bureaucratic or, conversely, a wholly personalised process. The eventual establishment of the Department of Organisation – though a formal department – typified this approach. The department’s director, Major-General Sir Robert Hutchison, summed up its importance, noting that ‘it depends on the personnel branch... whether a country is going to be successful in war or unsuccessful. It’s a long, long way the most important thing we have in our country’.<sup>199</sup>

The relationship between civil and military professions offers a number of insights into the army as an organisation. First, that it was capable of recognising and implementing change, despite inevitable pockets of resistance and organisational inertia. Secondly, that its desire to seek out civilian expertise, both inside and outside its organisation, highlights its multi-faceted learning process. With the wider use of civilian expertise came the adoption of administrative innovations, such as card index systems and pre-printed forms. The adoption of such methods revealed an organisation that was ready and willing to employ efficiency measures that were

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<sup>197</sup> H. Jones, ‘The Great War: How 1914-18 Changed the Relationship between War and Civilians’, *JRUSI* 159 (4) (2014), p. 90.

<sup>198</sup> Foley, ‘Dumb Donkeys’, p. 297.

<sup>199</sup> United States Adjutant-General’s Office, *Personnel System*, I, p. 691.

standard practice in the business world. Finally, that it still valued pragmatic solutions to its problems. Despite establishing formal departments and processes, particularly for personnel selection, the army still needed to be adaptable. Fighting across different terrain, often with insufficient infrastructure, the army required customised solutions to respond to these difficulties. The use of civilian expertise played a significant part in the development of these solutions.

## CHAPTER 5

### LEARNING AND UNLEARNING

In his history of the 74th Division, Major Charles Dudley Ward recounted the division's arrival on the Western Front in May 1918. He wrote how 'lectures were given to these "green" troops from Palestine on bayonet fighting – any one platoon of the 74th Division had probably made more use of the bayonet than any battalion in France'.<sup>1</sup> Although the majority of the army's manpower remained on the Western Front, over a third of its formations saw service in another theatre.<sup>2</sup> The army shared more than just knowledge and *matériel* between theatres. It also shared personnel. The tactical and geographic environments of each theatre varied greatly and often necessitated a change in a formation's physical establishment along with its tactics, techniques, and procedures. In addition to these physical changes, formations also had to negotiate certain cultural changes. As Chapter 1 suggests, the military is a 'culture of sub-cultures'. Although the army promoted a shared, unifying ethos, each expeditionary force and its various corps had their own idiosyncrasies and different ways of working. Formations that moved between expeditionary forces had to negotiate these peculiarities with the help of a series of integration methods.

Integration or 'socialisation' can be understood as 'the process by which organisations help newcomers learn about their work and adjust to the workplace'.<sup>3</sup> Colloquially, it is the process of 'learning the ropes' or 'getting up to speed'.<sup>4</sup> As well as transferring relevant job information, it also requires the relinquishing of pre-existing attitudes, values, and behaviours. Although the army was receptive to innovation and change in wartime, adjusting to a new expeditionary force was not without its difficulties. According to Liddell Hart's famous adage,

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<sup>1</sup> Dudley Ward, *74th Division*, p. 204.

<sup>2</sup> Forrest, 'The 52nd (Lowland) Division', pp. 15-16.

<sup>3</sup> R. Korte and S. Lin, 'Getting on board: Organizational socialization and the contribution of social capital', *Human Relations* 66 (2013), p. 409.

<sup>4</sup> M. R. Louis, 'Surprise and Sense Making: What Newcomers Experience in Entering Unfamiliar Organizational Settings', *Administrative Science Quarterly* 25 (2) (1980), p. 230.

‘the only thing harder than getting a new idea into a military mind is to get an old idea out’.<sup>5</sup> There is some truth to this when considering the integration of formations into a new force. However, militaries are significant practitioners of socialisation. Organisations such as the British army have preserved their organisational memory and, indeed, their ethos over time through the continuous integration of newcomers. This has led to these organisations remaining ‘the same’ in terms of their identities, even though their strategies, processes, and employees have changed.<sup>6</sup>

This chapter examines how the army integrated combat formations into its individual expeditionary forces and the methods it used to do this. Through this examination, it also reflects on the army’s ethos and asks whether the army bears out its reputation as a flexible organisation. To determine its flexibility, the chapter will consider whether the army dictated the methods for integration, or whether formations were given the opportunity to determine their own way of integrating into a new expeditionary force. In this respect, it engages with Foley’s work on horizontal learning, with its consideration of how units learned from one another, how they shared knowledge and experience, and the extent to which they developed their own individual ways of integrating, rather than simply waiting for top-down instruction.<sup>7</sup> The chapter focuses on the movement of combat formations between active operational theatres and will not cover the movement of formations from Britain to the Western Front, which has been considered by Peter Simkins and Charles Messenger.<sup>8</sup>

The chapter first considers formations’ initial perceptions of the new theatre and includes discussion of any preparation received, such as pre-deployment training. Secondly, it examines formations’ encounters with their new expeditionary force, outlining some of the initial difficulties and prejudices faced, relating to theatre snobbery, ‘class’, and service history.

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<sup>5</sup> B. H. Liddell Hart, *Thoughts on War* (London: Faber and Faber, 1944), p. v.

<sup>6</sup> E. P. Antonacopoulou and W. H. Guttel, ‘Staff Induction Practices and Organizational Socialization: A Review and Extension of the Debate’, *Society and Business Review* 5 (1) (2010), pp. 22-23.

<sup>7</sup> Foley, ‘Horizontal Military Innovation’, pp. 799-827.

<sup>8</sup> See P. Simkins, *Kitchener’s Army: The Raising of the New Armies 1914-1916* (Manchester: Manchester University Press, 1988); C. Messenger, *Call-to-Arms: The British Army 1914-18* (London: Cassell, 2005).



Thirdly, it outlines the army's integration methods, including attachments, training schools, lectures, and tactical exercises, before briefly identifying individualised, formation-driven methods, such as socialising. Fourthly, it considers formations' adjustment to, and acceptance of, the new expeditionary force, using the EEF's 'Indianisation' process as a case study. Finally, it considers some of the benefits that formations brought to their new forces.

Writing to his family in April 1915, Lieutenant-Colonel Sir Henry Darlington, commander of the 1/5th Battalion Manchester Regiment, declared how 'fearfully pleased' he was at the prospect of his battalion's 'show' at Gallipoli. He was 'quite glad to go and give them their chance'.<sup>9</sup> Darlington's perception of service at Gallipoli was positive. His battalion was unblooded and, for Darlington, the 'thought of scrapping does not spoil my sleep or appetite'. For Major Edmund Hody in 1917, the prospect of moving from the Western Front to Italy was a welcome one:

There was not an Officer, NCO or man whose spirits were not rapidly rising as the rumour spread... From Flanders to Italy. What a contrast indeed! From a country seething slosh and mud, with dark skies and continual dampness, rain and depression, to a land of warmth, sunshine, and blue skies.<sup>10</sup>

For some individuals, it was the prospect of change that coloured their initial perceptions. This was particularly true for those leaving Salonika. Negative perceptions of Salonika were common. For Sergeant Charles Jones, an NCO in the 2/15th Battalion London Regiment, 'any change was good', as there was a 'general air of futility and neglect about the [Salonika] front'.<sup>11</sup> Generals shared such views too. In a letter to his wife, Brigadier-General Hugh Simpson-Baikie, artillery commander to the 60th Division, wrote 'I heartily wish we were back in France. The town itself [Salonika] is a beastly place... It is an awful nuisance they sent

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<sup>9</sup> LHCMA, Papers of Lieutenant-Colonel H. Darlington, 1/1, Letters from Helles, 30 April 1915.

<sup>10</sup> E. H. Hody, *With "The Mad 17th" to Italy* (London: George Allen and Unwin, 1920), p. 2.

<sup>11</sup> LHCMA, Papers of Sergeant C. F. Jones, 2, 'N.C.O', pp. 180-181.

us here from France'.<sup>12</sup> Brigadier-General Philip Howell's own disappointment resulted in him taking matters into his own hands, capitalising on his close relationship with Lady Dorothy Haig. In early 1916, Howell petitioned her directly over his 'inactive part' in Salonika.<sup>13</sup> Howell's use of this pre-existing social network resulted in Lady Haig passing his letter on to Sir Douglas Haig. By coincidence or design, Howell eventually returned to the Western Front in May 1916, albeit in a lesser appointment, as GSO1 to the II Corps.

To help prepare for service in a new theatre, certain formations undertook pre-deployment training. However, this was not the case for all expeditionary forces or formations. The amount of training received was determined by the formation itself. In some cases, pre-deployment training involved practising certain tactics, accompanied by the distribution of training pamphlets, while for others it was non-existent. For those formations moving from the Western Front to one of the subsidiary theatres, there is little evidence to suggest that pre-deployment training took place. In some cases, this was due to the limited time between notification of deployment and embarkation. The 27th Division, for example, had little more than two weeks between notification and embarkation for Salonika. It was told on 31 October 1915 that it was 'to follow the 26th Div to the East' and began its embarkation on 17 November 1915.<sup>14</sup> It was therefore obliged to carry out its pre-deployment training on board transport ships. Private Charles Carter, a soldier in the 2/15th Battalion London Regiment, noted how, in late October 1915, 'his battalion marched away in the early morning for an unknown destination, but everybody knew it was the Somme'.<sup>15</sup> However, rather than the Somme, the battalion was on its way to Salonika where it arrived on 29 November 1915. Colonel Roderick Macleod recalled that 'we guessed we were going to Italy when we heard that the staff were buying Italian dictionaries'.<sup>16</sup> The 7th Division, also destined for Italy, received preliminary

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<sup>12</sup> LHCMA, Papers of Brigadier-General Sir H. A. D. Simpson-Baikie, 1, Simpson-Baikie to wife, 14 December 1916.

<sup>13</sup> LHCMA, Howell Papers, 6/2, Lady Haig to Howell, 8 February 1916.

<sup>14</sup> TNA, WO 95/2255/2, 27th Division A&Q War Diary, 31 October 1915.

<sup>15</sup> NAM, Papers of Private C. Carter, 2004-08-68, Ts Diary, p. 26.

<sup>16</sup> NAM, Macleod Papers, 8112-9, 'An Artillery Officer in the First World War', p. 188.

orders to proceed there on 10 November 1917. The historian of the Honourable Artillery Company recalled how ‘an old lady on whom one of the officers was billeted remarked, “Seventh Division; Oh, you are for Italy”. This was about the first of the rumours of a possible change of front’.<sup>17</sup> The division arrived in Genoa on 24 November 1917. The extent of its pre-deployment training was encapsulated in its divisional conference notes: ‘Do what you can in the train. Normal attack formation first opportunity’.<sup>18</sup> As a rule, this was not unusual among combat formations moving to subsidiary theatres, particularly if they had already spent considerable time in France and Flanders. This appears to reinforce the primacy of the Western Front and the belief that operations in subsidiary theatres would require little adaptation of current tactical methods.

For combat formations moving to the Western Front from the subsidiary theatres, there was evidence of some pre-deployment training. For those formations moving from Gallipoli back to the Western Front often via Egypt, these opportunities were patchy and varied between formations. During the six months it spent in Egypt, the 11th Division carried out intermittent training in field firing, simple tactical exercises, and specialist training in the use of trench warfare munitions, such as grenades and Stokes mortars.<sup>19</sup> Conversely, despite the focus on the expansion and reorganisation of new units, the AIF’s divisions invested considerable time in pre-deployment training. In December 1915, Chauvel, then commanding the 1st Australian Division, informed his troops that ‘Captain Blackshaw RE has been temporarily attached... to lecture on the steps to be taken to meet gas attacks, and to give instruction as to the use and care of a new pattern gas helmet’.<sup>20</sup> The 1st Australian Division also prioritised the formation and training of snipers ‘immediately preceding departure to France’, while the 5th Australian Division ordered its brigades to ‘construct a set of instructional trenches in their own training

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<sup>17</sup> G. Goold Walker, *The Honourable Artillery Company in the Great War 1914-1919* (London: Seeley, Service & Co., 1930), p. 328.

<sup>18</sup> TNA, WO 95/1633, 7th Division GS War Diary, 16 November 1917.

<sup>19</sup> TNA, WO 95/4587, 11th Division GS War Diary, *passim*.

<sup>20</sup> AWM, AWM25 941/2, Training Infantry Egypt 1915-1916, Operational Memo No. 42, 6 December 1915.

areas' for progressive training in 'rear and flank guards; outposts, bayonet fighting; the construction of trenches and obstacles'.<sup>21</sup>

The situation in the EEF was somewhat different. For those formations sent back to the Western Front in 1918, including the 74th Division, 52nd Division, and battalions from the 10th and 60th Divisions, the systematic dissemination of Western Front literature had formed the bedrock of their training while in Palestine. EEF GHQ regularly issued excerpts from SS pamphlets in order to keep formations up to date with the latest Western Front innovations and operational experiences. In April 1917, for example, *SS126 Training and Employment of Bombers* was issued to divisions with an accompanying memo requesting that 'special attention [be] paid to the organisation and training of bombers and... ensuring that their duties in defence and counter attack are thoroughly understood'.<sup>22</sup> This practice was given greater impetus with Allenby's arrival. In September 1917, divisions were provided with extracts from *Notes on Recent Operations on the front of First, Third, Fourth and Fifth Armies* for 'application where necessary during Training period'.<sup>23</sup> Although a minor feature of warfare in Palestine, soldiers were also drilled in the latest gas tactics. Writing to GOC Eastern Force, Lynden-Bell advised that 'Courses of Instruction (as laid down in pamphlet *SS125*) should be arranged', but they 'must not be regarded as an alternative to the Gas Course for Officers and NCOs mentioned in Pamphlet *SS534*'.<sup>24</sup>

However, with the recall of these particular formations, pre-deployment training that focused on Western Front technology was intensified. The War Office requested that 'special attention be paid to anti-gas training of troops proceeding to France'.<sup>25</sup> Officers and men in the 74th Division were 'persistently exercised' in the use of the small box respirator and lectures

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<sup>21</sup> *Ibid.*, 'Report on Sniping in Trench Warfare', n.d., and 5th Australian Division 'Training Memo No. 1', 5 April 1916.

<sup>22</sup> TNA, WO 95/4634, 54th Division GS War Diary, Dawnay to GOCs Divisions, 26 April 1917.

<sup>23</sup> *Ibid.*, Memo, 30 September 1917.

<sup>24</sup> TNA, WO 95/4367, EEF GHQ War Diary, Lynden-Bell to GOC Eastern Force, 25 July 1917.

<sup>25</sup> TNA, WO 95/4370, EEF GHQ War Diary, 26 June 1918.

were ‘given daily’ with a view to preparing the formation for operations on the Western Front.<sup>26</sup> One soldier in the 52nd Division recalled being ‘regularly supplied in the East with all the military publications, including books of plans of beautiful trenches’ in preparation of the division’s move to the Western Front.<sup>27</sup> Although this training did little to lessen suspicion around their combat effectiveness and ability, it did serve to prepare them for operations on the Western Front. As Christopher Forrest argues, the principles of effective employment did not alter from one theatre to another. In the case of the 52nd Division, much of the training it carried out upon its arrival on the Western Front was based upon the same principles that guided its training in Palestine.<sup>28</sup> Pre-deployment training and pamphlets could provide some idea of the type of warfare expected in a new expeditionary force. However, as we shall see in the next section, encounters with a new force were marked by difficulties and prejudice.

For those formations moving from the subsidiary theatres to the Western Front, it was the change in scale that was most remarkable. On his return from Salonika to France, for example, Howell wrote that ‘it’s dull being a person of no importance and with no responsibility after months of running a show with absolute powers’.<sup>29</sup> He also bemoaned the II Corps’ ‘very green’ divisions and wished ‘we had our Salonika ones here – they’re *miles* ahead of any of these’.<sup>30</sup> Captain Noel Drury remarked that service in a theatre like Palestine or Salonika gave individuals and formations a ‘chance to work out your own little show’.<sup>31</sup> However, this was not the case on the Western Front. This echoed the sentiments of both the 29th and 42nd Divisions. Though a regular division, the 29th Division ‘would not be the cynosure of every eye, “the backbone” of any enterprise’. Instead, it would be ‘a novice among old hands’.<sup>32</sup> The 42nd Division thought itself ‘a new boy at a strange school’. Although it had ‘learnt much in the old

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<sup>26</sup> TNA, WO 95/3154/1, 231st Brigade War Diary, 2-6 May 1918.

<sup>27</sup> Morrison, *Highland Light Infantry*, p. 204.

<sup>28</sup> Forrest, ‘The 52nd (Lowland) Division’, p. 302.

<sup>29</sup> LHCMA, Howell Papers, 6/1, Howell to wife, 20 June 1916.

<sup>30</sup> *Ibid.*, Howell to wife, 13 June 1916. Original emphasis.

<sup>31</sup> NAM, Drury Papers, 7607-69, Volume 3 Palestine, p. 159.

<sup>32</sup> S. Gillon, *The Story of the 29th Division: A Record of Gallant Deeds* (London: Nelson, 1925), p. 76.

school and the experience would be useful', it still had much to learn and, perhaps most tellingly, much to unlearn.<sup>33</sup> Following his battalion's move from Palestine to the Western Front in 1918, Jones noted that, although his battalion took 'about ten minutes to settle down to life in France', the 'general atmosphere was very different from that of the Palestine front. The air of cheerful confidence to which we were accustomed, the feeling that everyone was on the same side... was not found in France'.<sup>34</sup>

The reality of service in a new theatre was often accompanied by anxiety and prejudice. This was particularly the case for formations that were serving in the subsidiary theatres, or moving to the Western Front. The primacy of the Western Front loomed large, encouraging theatre snobbery. Chauvel, for example, recalled that:

... unfortunately neither the Australian government or the Australian people seem to take the slightest interest in my command! They can't even send me a congratulating telegram without discounting its value by bringing in something about the Australians in France!<sup>35</sup>

Perhaps, for families and the press back home, the view of these subsidiary theatres was coloured by romantic and exotic ideals. They were places of relative safety when compared with the high tempo, mechanised warfare found on the Western Front. Echoing Chauvel's remarks above, Jean Bou has argued that 'invidious comparisons' of Australians fighting in Palestine with those on the Western Front were 'apparently part of the light-horsemen's experience'.<sup>36</sup>

Recounting his service in Palestine, Ion Idriess recalled how one Australian Light Horseman:

... got a parcel addressed to "a lonely soldier". Enclosed was a note from the lady expressing the pious wish that a brave soldier in France should get the parcel and not some cold-footed squib in Egypt. The chap who received the parcel sent the lady some photos of our desert graves, with compliments from a cold-footed squib in Egypt.<sup>37</sup>

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<sup>33</sup> F. P. Gibbon, *The 42nd (East Lancashire) Division 1914-1918* (London: Country Life, 1920), p. 88.

<sup>34</sup> LHCMA, Jones Papers, 2, 'N.C.O.', p. 350.

<sup>35</sup> AWM, Papers of General Sir H. Chauvel, PR00535 4/14, Chauvel to wife, 23 October 1918.

<sup>36</sup> J. Bou, *Light Horse: A History of Australia's Mounted Arm* (Melbourne, VIC: Cambridge University Press, 2009), p. 223.

<sup>37</sup> I. Idriess, *The Desert Column* (London: Angus & Robertson, 1941), pp. 295-296.

Such views were not limited to Palestine. Jones, for example, recalled a rumour that a song entitled 'If you don't want to fight go to Salonica' was increasingly popular in the music dance halls back in England. Although he found the rumour difficult to take seriously, he expressed consternation that 'people in England were getting restive because while men were dying in France, not enough were dying in Macedonia'.<sup>38</sup> This perception was reinforced by high manpower wastage as a result of malaria and dysentery, along with the slow tempo of operations. Jones also mused that 'there was an unsatisfactory feeling about the Salonica front. There was apparently no hope of any successful advance and one stood an excellent chance of getting killed quite uselessly, on some futile errand without hope of result'.<sup>39</sup>

In addition to certain prejudices emanating from the home front, formations also had to negotiate both higher command and neighbouring formations' perceptions of their 'class' (regular, territorial, Kitchener army, or Indian army), or previous service. Despite being a regular army formation, the 7th Division experienced negative perceptions of its ability from Italian troops. Lance-Corporal D. G. Dobney recalled that the 'first time British troops went into the Italian trenches a funny coincidence came about'. As a result of the 7th Division's recent arrival and unfamiliarity with the theatre, the Italian troops who held the position 'did not want to leave, thinking we should not be able to manage'.<sup>40</sup> On rare occasions, initial perceptions could be positive. Major Lionel Collins, an officer in the 1/4th Gurkha Rifles, recalled a conversation with an Australian soldier who had been through the initial landings at Gallipoli. The Australian remarked that "There are only 3 kinds of men who are any use out here. The Australians, New Zealanders and Gurkhas. As for Kitchener's Army, they know as much about fighting as a goose about God".<sup>41</sup>

Although, as Edward Erickson has argued, the 'class barriers' between formations broke down as the war progressed, a distinct prejudice remained against Kitchener army

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<sup>38</sup> LHCMA, Jones Papers, 2, 'N.C.O', p. 170.

<sup>39</sup> *Ibid.*, p. 180.

<sup>40</sup> IWM, Papers of D. G. Dobney, 97/26/1, Ts diary.

<sup>41</sup> NAM, Papers of Major L. P. Collins, 7805-59, Letter to family, 3 September 1915.

divisions, particularly during the early years of the war.<sup>42</sup> Darlington expressed reservations over the attachment of Kitchener army officers to his battalion, writing 'I hope these K's lot are good. They *look* pretty mixed'.<sup>43</sup> Recalling the experience of the August offensive at Gallipoli, Beauvoir De Lisle commented unfavourably on the performance of the 10th Division, along with that of the territorial 53rd and 54th Divisions. He noted that 'none of these, nor their commanders, had had any previous experience of modern warfare, and to this, and this only, can I attribute their failure'.<sup>44</sup> In a letter to Kitchener, Hamilton was less damning of the Kitchener army officers. He wrote how they were 'perfectly splendid', but they had suffered 'without any regulars to stiffen them'.<sup>45</sup>

These 'class barriers' were still in place by 1917, particularly in the subsidiary theatres. Upon hearing of the 10th Division's move to Palestine in August 1917, Lynden-Bell wrote to Major-General Frederick Maurice to say that he was 'glad to see that there are three regular battalions in it'.<sup>46</sup> This was, in large part, due to the perception that formations arriving from Salonika had 'little fighting experience' and the belief, in some quarters, that their fighting value was 'greatly reduced' as a result.<sup>47</sup> Brigadier-General Arthur Clarke, a former officer in the 54th Division, recalled how his division was 'kept in the line so long as General Allenby insisted that... those from Salonika were in need of intensive training in open warfare. His view was that the old divisions did not need any special training'.<sup>48</sup> The need for this 'intensive training' was unsurprising as formations serving in Salonika were expected to prepare for 'both of the two most probable types of warfare (a) offensive operations in Macedonia and (b) return

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<sup>42</sup> E. Erickson, *Ottoman Army Effectiveness in World War I: A Comparative Study* (London: Routledge, 2007), p. 130.

<sup>43</sup> LHCMA, Darlington Papers, 1/1, 'Letter from Helles', 22 June 1915, p. 55. Original emphasis.

<sup>44</sup> LHCMA, Papers of General Sir H. de Beauvoir De Lisle, 3/1, *Memoir: The Narrative of the German War*, p. 89.

<sup>45</sup> LHCMA, Hamilton Papers, 7/1/6, Hamilton to Kitchener, 11 August 1915.

<sup>46</sup> TNA, WO 106/718, Correspondence between General Staff, War Office and Egypt, Lynden-Bell to Maurice, 26 August 1917.

<sup>47</sup> LHCMA, Shea Papers, 6/2, 'Some Aspects of Lord Allenby's Palestine Campaign', 25 April 1923, p. 2; TNA, WO 106/1347, Situation at the Front and in Salonika, 'First Tour of Lt-Col K. Barge, General Staff to Macedonian Front', 3 June 1918-5 July 1918.

<sup>48</sup> LHCMA, Papers of Brigadier-General A. S. Clarke, 1/4, 'The memoirs of a professional soldier in peace and war', 29 April 1968, p. 8.



to trench work in France'.<sup>49</sup> As a result, formations were actively encouraged to include 'instruction methods to be employed in trench warfare' in their weekly training programmes.<sup>50</sup>

In addition to its 'class', a formation's previous service and operational experience also came under considerable scrutiny, particularly for formations moving to the Western Front. This snobbery was expressed at the very highest levels of the army. Writing to his wife in July 1916, Haig commented on the poor performance of Hunter-Weston's VIII Corps, noting that 'the majority of his officers are amateurs in hard fighting and some think they know much more than they do of this kind of warfare, simply, because they had been at Gallipoli'.<sup>51</sup> This snobbery resulted in a marked preference for commanders with experience of France and Flanders. At Gallipoli, for example, Hamilton was desirous of officers with Western Front experience – men like Simpson-Baikie. In a letter to Wolfe Murray in April 1915, Hamilton wrote:

I think you were in the room when Lord K[itcheener] said I was to have Simpson-Baikie, a very thoughtful capable officer with recent French experience as Artillery Commander. Lord K said he was far too good for liaison officer which was what he was doing at the moment... I, as you know, have got Fuller... he has not that recent knowledge of artillery work in France which I should have thought quite indispensable to a newly constituted force such as this.<sup>52</sup>

Although Hamilton secured Simpson-Baikie for the 29th Division, he was not always so fortunate in his requests for officers with 'French experience'. Writing to Kitchener in June 1915, Hamilton requested a new corps commander. The two men he suggested were Byng and Rawlinson, as 'both possess the requisite qualities and seniority; the latter does not seem very happy where he is, and the former would have more scope than a Cavalry Corps can give him in France'.<sup>53</sup> Though Byng eventually commanded a corps in the MEF, Kitchener initially declined Hamilton's request. He felt that Sir John French could not spare the services of these two

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<sup>49</sup> TNA, WO 95/4756, BSF GHQ War Diary, Howell to GOCs XII and XVI Corps, 26 February 1916. Original emphasis.

<sup>50</sup> *Ibid.*, Gillman to GOCs XII and XVI Corps, 6 July 1916.

<sup>51</sup> TNA, WO 256/10, Haig Diaries, 29 June 1916.

<sup>52</sup> LHCMA, Hamilton Papers, 7/1/11, Hamilton to Wolfe Murray, 7 April 1915.

<sup>53</sup> LHCMA, Hamilton Papers, 7/2/4, Hamilton to Kitchener, 15 June 1915.

generals. This was not unusual. In a letter to Hunter-Weston, Beauvoir De Lisle expressed frustration at not being able to find a suitable officer locally to appoint to GSO3 in the 29th Division. For Beauvoir De Lisle, his preferred action would be to transfer a proven staff officer from the BEF. He had even gone to the effort of compiling a list of favoured officers:

... I send you the following names in order of merit:

1. Capt H. Tomkinson, Royal Dragoons, Provost Marshall 1st Cav Div BEF
2. Capt C. Heydeman, 2 Dragoon Guards (Speaks French like a Frenchman also German) 1st Cav Bde BEF
3. Capt R. Benson, 9th Lancers, 2nd Cav Bde, BEF. Now in England wounded.
4. Capt Bullock-Marsham, 19th Hussars, Staff Captain, 9th Cav Bde BEF.<sup>54</sup>

Unfortunately, Captain Stephen Pollen, Hamilton's military secretary, wrote that 'it is little use applying for anyone now actually employed in France'.<sup>55</sup>

These dismissive attitudes continued throughout the war. Arriving in France in April 1918, an officer in the 52nd Division later wrote that 'the authorities in France, I imagine, were wholly confident that troops coming from Palestine were bound to be deficient in the most elementary military knowledge'.<sup>56</sup> Albert Phillips, an NCO in the 74th Division, recalled how his division had 'more experience of hand to hand fighting than those who had only seen service on the Western Front', but they were 'constantly reminded that they were not in the "real war" and their achievements in Palestine belittled'.<sup>57</sup> In 1918, Jones bitterly recalled his battalion's first encounter with a Western Front 'brass-hat' during a training exercise in which his battalion was to 'advance across a piece of open country'. He wrote how 'we took a certain pride in the job; we thought we could show these trench-bound soldiers a thing or two...'<sup>58</sup> However, the general's response was far from complimentary:

"What the hell do you mean by lining up like this? Where are your sections? What's the sergeant think he's doing in the rear?" And so it flowed on, in

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<sup>54</sup> LHCMA, Hamilton Papers, 7/1/24, De Lisle to Hunter-Weston, 3 July 1915.

<sup>55</sup> *Ibid.*, Pollen to Hunter-Weston, 5 July 1915.

<sup>56</sup> IWM, Papers of Major W. R. Kermack, Memoir, n.d.

<sup>57</sup> NAM, Papers of A. Phillips, 2010-07-1, Ts Memoir, n.d., p. 144.

<sup>58</sup> LHCMA, Jones Papers, 2, 'N.C.O.', p. 352.

would-be strong language that seemed mild to us, while we “*looked at each other with a wild surmise*”... We marched home with an uneasy feeling that the powers that be, although they now wished the troops trained in open-order warfare, had forgotten the elements of it themselves... Our new commanders did not find our methods to their taste; in fact they probably considered us inefficient. It is not surprising that the feeling was reciprocated.<sup>59</sup>

Despite the dissemination of Western Front methods in the subsidiary theatres, the perceived primacy of that theatre permeated all levels of the army.<sup>60</sup> Formations had to prove to new higher commanders and neighbouring formations that they had the ability to conduct operations. Invariably, this prejudice led to frustration and resentment. Soldiers’ accounts reveal anxiety over perceptions of their previous experience. In some cases, there was a palpable hardening towards a new theatre of operations, which resulted in certain formations believing that they had to prove they were better than those who had been in theatre longer. Drury wrote how his battalion was glad to serve on the Western Front, as ‘everyone tells us we have seen no proper fighting up to this... Well, that’s as may be, but I bet our hardy lads will give a good account of themselves, and... will be called on when someone wants to be helped out of a mess’.<sup>61</sup> Even after three months on the Western Front, Drury’s attitude towards operations in France was still couched in terms of his experience in Palestine. During the Pursuit to the Selle in October 1918, he recalled how ‘this most leisurely battle would not have suited Allenby if he were here. The Bosch are given plenty of time to clear off and take all their gear with them’.<sup>62</sup> Drury continued with an air of exasperation when comparing his battalion’s tactics to those of neighbouring battalions in the 66th Division:

It seems we have been getting too far out in front of the general line, as the other troops don’t know anything about a running battle and they feel lost if they get the least gap between sections and platoons. Our men on the other hand are quite happy with a hundred yards between sections of machine guns and give each other cross fire along their front to help them forward, as a matter of

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<sup>59</sup> *Ibid.*, pp. 351-352. Added emphasis.

<sup>60</sup> LHCMA, Kiggell Papers, 4/19, Kiggell to Robertson, 3 June 1916. Kiggell argued that the non-Western Front theatres ‘should make the best of raw material in officers rather than that we [the Western Front] should have to do so’.

<sup>61</sup> NAM, Drury Papers, 7607-69, Volume 3 Palestine, 20 July 1918, p. 175.

<sup>62</sup> *Ibid.*, Volume 4 France, 8 October 1918, p. 22.

course.<sup>63</sup>

For Drury, his battalion's experience of open warfare stood it in good stead for operations on the now-mobile Western Front. Drury's was a common complaint. His description of the Pursuit to the Selle also implied that this previous experience trumped that of long serving Western Front formations. As the sociologist Meryl Louis has suggested, when experiences of 'old roles' are recalled, contrasts are naturally generated.<sup>64</sup> The newcomer, for example, may evaluate aspects of the new role using old role experiences as 'anchors'. Newcomers might also resist their new role in favour of the old. In an account of his battalion's operations near Messines in late 1918, for example, Jones recalled how 'the formation in fashion at the moment demanded one section out in front as a screen'. However, as a result of his battalion's previous experience of semi-mobile operations, it was decided to dispense with the screen as 'it served no useful purpose'.<sup>65</sup> The experience of contrast and change is a natural phase in the process of 'leavetaking' from an old role and adjusting to a new one. Jones' account provides a useful example of how memories of the experience of an old role were carried into the new.<sup>66</sup> As the next section reveals, both the army and individual formations employed a series of integration methods to aid the leavetaking process.

Integration and the concept of 'acclimatising' were familiar to the army of the time. Generally speaking, this acclimatising period allowed soldiers to adjust to changes in temperature and terrain. Drury recalled his battalion's arrival in Egypt and described how 'the arrangement is that we stay here acclimatising for a short while and get the men accustomed to marching in the sand...'<sup>67</sup> Similarly, Jones recounted his battalion's acclimatisation in Egypt where he 'learned what heat meant'. His battalion soon improved and 'learned much in the art of keeping cool

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<sup>63</sup> *Ibid.*, 12 October 1918, p. 26.

<sup>64</sup> Louis, 'Surprise and Sense Making', pp. 236-237.

<sup>65</sup> LHCMA, Jones Papers, 2, 'N.C.O.', p. 375.

<sup>66</sup> Louis, 'Surprise and Sense Making', p. 241.

<sup>67</sup> NAM, Drury Papers, 7607-69, Volume 3 Palestine, 13 September 1917, p. 28.

from the experience of our forerunners'.<sup>68</sup> However, there was more to acclimatising than adjusting to changes in temperature and terrain. The army and its formations employed a series of methods to integrate newcomers as quickly as possible. Similar to the methods used by the army to share knowledge, these included attachments, high level courses of instruction, unit training, tactical exercises such as raiding, and lectures and demonstrations. This holistic approach to integration ensured that formations were exposed to both the organisational and tactical mores of their new force.

The most appropriate methods for acclimatising formations were subject to discussion. Although there were similarities in practice, there was no standardised approach to acclimatisation across all theatres. For example, the lack of large scale offensive operations in Salonika often gave formations considerable time to adjust to the new conditions.<sup>69</sup> This included 'practising mountain warfare', along with the construction of defences and roads.<sup>70</sup> In rare cases, some combat formations, such as the 11th Division at Gallipoli, were committed to operations with little opportunity to acclimatise to the new tactical and geographic conditions.<sup>71</sup> Each force had its own way of doing things and, in some cases, so did each formation within that force. Writing to Chetwode in May 1917, Lynden-Bell instructed him on EEF GHQ's preference for acclimatising new units. In contrast to Chetwode's belief that 'young and untried troops' should be trained 'in the field with more experienced troops', GHQ believed that 'theoretical training' was paramount in the first instance.<sup>72</sup> Such training was to be carried out in units' own brigades prior to their attachment to front line formations. Localised training also allowed formations a 'sufficient period of acclimatisation to ensure their physical fitness to bear the strain of operations...'<sup>73</sup> GHQ was only willing to countenance the attachment of new units

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<sup>68</sup> LHCMA, Jones Papers, 2, 'N.C.O.', p. 202.

<sup>69</sup> See TNA, WO 95/4878, 27th Division GS War Diary, *passim*.; TNA, WO 95/4887, 80th Brigade War Diary, 1-31 December 1915.

<sup>70</sup> TNA, WO 95/4894, 82nd Brigade War Diary, 15 December 1915; TNA, WO 95/4887, 80th Brigade War Diary, Operation Order No. 80, 18 December 1915.

<sup>71</sup> TNA, WO 95/4297, 11th Division GS War Diary, August 1915.

<sup>72</sup> TNA, WO 95/4367, EEF GHQ War Diary, Lynden-Bell to Chetwode, 12 May 1917, p. 1.

<sup>73</sup> *Ibid.*

to front line formations for training once their theoretical training was ‘sufficiently advanced’, and they were medically fit. For the EEF, the actual method of these attachments was highly prescriptive. Lynden-Bell advised Chetwode that ‘the Commander-in-Chief is extremely anxious that the procedure adopted in France... should be most closely adhered to’. This process required:

... individual men, and subsequently sections, platoons, companies, and finally battalions, [to] undergo, in turn, periods of progressive attachment to corresponding units of the formation to which they are affiliated for instruction... on no account should a new unit be allowed to take over a section of the line independently until its fitness to do so has been thoroughly assured...<sup>74</sup>

However, as Chetwode intimated, the use of attachments offered a unique benefit to new formations, as it allowed them to adjust quickly to a new theatre through the assimilation of practical hints and tips. The majority of these attachments were governed by higher formations, such as corps and GHQ, yet there were opportunities for localised attachments, organised by divisions themselves and individual unit commanders.<sup>75</sup>

The use of attachments was widespread across all theatres and took place throughout the war. Though promoted by higher headquarters, such as Chetwode’s XX Corps, it was in most cases a common sense adoption of a tried and tested method. Brigades of the 13th Division, for example, were ‘attached to the 29th Division to learn trench duties’ when they arrived at Gallipoli. Hunter-Weston was under ‘strict order’ from Hamilton to ‘wrap them [13th Division] up in cotton wool for the present and not make use of them for attacks in the meantime’.<sup>76</sup> As part of this general scheme of attachment, Beauvoir De Lisle ‘lectured to the battalion commanders’ of the 13th Division to help them ‘learn their business a little’.<sup>77</sup> A

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<sup>74</sup> TNA, WO 95/4634, 54th Division GS War Diary, Lynden-Bell to Chetwode, 12 May 1917, p. 2.

<sup>75</sup> For example, GOC XX Corps proposed to attach officers, NCOs and men of the incoming 10th (Irish) Division to other divisions within his corps for ‘instructional purposes’. This proposal was authorised by EEF GHQ. See TNA, WO 95/4368, EEF GHQ War Diary, 24 September 1917.

<sup>76</sup> LHCMA, Hamilton Papers, 7/1/6, Hamilton to Kitchener, 7 July 1915.

<sup>77</sup> LHCMA, Beauvoir De Lisle Papers, 3/1, Ts Memoir, p. 85; TNA, WO 95/4300, 13th Division GS War Diary, 15 July 1915; LHCMA, Hamilton Papers, 7/1/6, Hamilton to Kitchener, 7 July 1915.

similar example can also be found in the experience of the 54th Division following its arrival at Gallipoli. Throughout September 1915, arrangements were made for ‘parties of 300 and 350 New Zealanders and Australians to be exchanged’ for a corresponding number of men in the 161st and 162nd Brigades.<sup>78</sup> The purpose of this exchange was ‘to accustom the men of the 54th Division to their new surroundings, and to enable them to pick up hints from, and profit by, the experience gained by the troops, who were used to trench warfare’.<sup>79</sup> To support this exchange, the 54th Division’s staff circulated a number of pamphlets and memoranda that had been issued by the ANZAC with the order that ‘the instructions therein contained should be made known to all the troops’.<sup>80</sup>

Arriving in Palestine in July 1917, the 180th Brigade ensured that each of its battalions sent two officers to spend forty-eight hours with the 52nd Division ‘until all senior officers had visited the trenches’.<sup>81</sup> Similarly, five officers from each battalion spent time visiting the 54th Division’s front in the coastal sector.<sup>82</sup> In line with the EEF’s Western Front-inspired practice, it was common for whole companies to be attached to long serving formations in order to ‘learn the ropes’. This was the case with companies of the 5th Battalion Devonshire Regiment, part of the newly formed 75th Division, who were attached to battalions of the 54th Division for ‘instruction in trench duties’ in July 1917.<sup>83</sup> The practice was also evident in the last year of the war, particularly for formations arriving on the Western Front. The 74th Division, for example, used attachments to familiarise its officers with conditions in the front line. These officers, including battalion and company commanders, along with Lewis gun and trench mortar officers,

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<sup>78</sup> This was very much a division and corps level decision. Hamilton bemoaned that it was a ‘million pities’ that we ‘cannot bring on these new troops quietly by mixing them up in the trenches with war veterans’. See LHCMA, Hamilton Papers, 7/1/6, Hamilton to Kitchener, 11 August 1915.

<sup>79</sup> TNA, WO 95/4324, 54th Division GS War Diary, 1, 9 and 11 September 1915. See LHCMA, Hamilton Papers, 7/1/16, Birdwood to Hamilton, 9 September 1915.

<sup>80</sup> TNA, WO 95/4324, 54th Division GS War Diary, Memo from Lieutenant-Colonel E. Da Costa, 4 September 1915.

<sup>81</sup> TNA, WO 95/4669, 180th Brigade War Diary, 19 July 1917.

<sup>82</sup> *Ibid.*, 19-27 July 1917.

<sup>83</sup> TNA, WO 95/4656, 163rd Brigade War Diary, 3 July 1917.

were attached to the New Zealand Division.<sup>84</sup> By drawing on the experience of established divisions, new formations could begin to adjust their existing procedures to suit their new environment.

Along with attachments, formations could also access formal training at schools of instruction at Army and corps levels. This formal training complemented the ‘on the job’ nature of attachments. It also provided a general foundation upon which formations could then develop their own local responses through ‘theoretical training’ at unit level. Upon arrival in a new theatre, it was standard practice for formations to ensure that a cadre of officers and NCOs was despatched to Army and corps schools for courses of instruction. This exposed formations to new and existing developments in theatre. Following its arrival in Egypt from Gallipoli, the 54th Division spent much of February and March 1916 sending officers and NCOs for instruction in bombing, transport duties, and lectures on cooperation between aircraft and artillery at Zeitoun and Ismailia.<sup>85</sup> These officers and NCOs could then disseminate these new methods through cascade training at unit level. These schools were dynamic establishments. They constantly adapted their syllabi in response to suggestions from the front line and up to date doctrine from the Western Front and other theatres. Instructional staff at the Imperial School of Instruction were often sent for ‘short periods of attachment’ to maintain close touch with units in the field and to study conditions in the front line.<sup>86</sup> These measures ensured that the schools were responsive to the operational requirements of units and, therefore, able to provide up to date instruction.

High level instruction from Army and corps was complemented by individual and collective training at unit level. Although this training was ‘assisted, controlled and supervised’ by higher formations, it was carried out under the ‘personal guidance’ of the divisional

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<sup>84</sup> TNA, WO 95/3154, 10th Battalion King’s Shropshire Light Infantry War Diary, 27 May 1918; TNA, WO 95/3150/10, 74th Machine Gun Battalion War Diary, 9 June 1918. See also D. D. Ogilvie, *The Fife and Forfar Yeomanry 1914-1919* (London: John Murray, 1921), pp. 120-121.

<sup>85</sup> TNA, WO 95/4633, 54th Division GS War Diary, 12-29 February 1916 and 6-13 March 1916.

<sup>86</sup> TNA, WO 95/4367, EEF GHQ War Diary, Lynden-Bell to GOC Eastern Force, 17 May 1917.



commander and his subordinates.<sup>87</sup> The nature and extent of unit training largely depended on the tempo and operational demands in theatre. Following its time at Gallipoli and fully expecting to return to the Western Front, the 54th Division's unit training in Egypt focused on trench construction, bombing, and musketry.<sup>88</sup> For formations arriving on the Italian front, for example, there was a requirement to conduct training in hill, mountain, and open warfare.<sup>89</sup> This represented an entirely different type of training from that conducted on the Western Front. The initial training of the 23rd Division in the Montello sector was to 'fit all ranks for open warfare and fighting in the lower foothills', along with the training of Lewis gunners in 'judging distance with a view to their employment in open warfare'.<sup>90</sup> The latter point, in particular, was an aspect that had been neglected owing to the flat nature of the ground on the Western Front.<sup>91</sup>

Formation training was also supplemented by the use of lectures and demonstrations. Although they were organised by individual formations, their use was widespread, offering a collective approach to acclimatising. Prior to joining the 11th Battalion Cheshire Regiment in August 1916, Major the Honourable Walter Guinness spent time at one of the base depots in Rouen, 'attending lectures and getting the latest instruction as to gas, etc., which was of course entirely new to me after my Egyptian experience'. As a field officer, Guinness was not required to attend these lectures, but he 'arranged with the Commandant to do so while I am here as a good many things... have been considerably improved since my experience at Anzac'.<sup>92</sup>

The 11th Division also made use of lectures to educate its troops in the latest Western Front tactics. As part of its initial training syllabus, the 11th Division invited an officer from the 21st Division to deliver a lecture on the battle of the Somme in an attempt to learn the lessons

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<sup>87</sup> GHQ, *SS152*, p. 8.

<sup>88</sup> TNA, WO 95/4633, 54th Division GS War Diary, Memorandum on Training, 25 January 1916.

<sup>89</sup> TNA, WO 95/4218, 7th Division GS War Diary, Agenda for Divisional Commander's Conference, 4 December 1917.

<sup>90</sup> TNA, WO 95/4229, 23rd Division GS War Diary, Notes on Corps Commander's Conference, 2 December 1917, and Notes on Divisional Commander's Conference, 7 January 1918.

<sup>91</sup> TNA, WO 95/4212, XIV Corps GS War Diary, Corps Warning Order, 12 March 1918.

<sup>92</sup> Bond and Robbins (eds.), *Staff Officer*, pp. 100-101.

from that campaign.<sup>93</sup> Third Army's chemical advisor was also invited to give 'a demonstration with a captured German Flammenwerfer Machine' to men of the 33rd and 34th Brigades.<sup>94</sup> The 11th Division utilised the expertise and knowledge of established formations and individuals to enable its troops to start adjusting to the experience of trench warfare. This offered a way of 'hot housing' formations, particularly those who had recently transferred to the Western Front. Both the 42nd and 2nd Australian Divisions arranged something similar. The former organised for RFC officers to lecture on contact aeroplane work, and interpretation of air photos, while the latter ensured that each of its brigades witnessed 'experiments with liquid fire'.<sup>95</sup>

Due to the limited use of gas, 'liquid fire', and tank cooperation in the subsidiary theatres, there was greater need to expose formations to these aspects of warfare when they arrived in France. As mentioned previously, both the 52nd and 74th Divisions were instructed in the 'unique aspects' of anti-gas training before, and upon, their arrival in 1918.<sup>96</sup> A commentator in the 14th Battalion Royal Highlanders recalled how the unit spent 'ten days, being fitted out with gas helmets, and passed through gas, a form of warfare of which we had had no practical experience out East...'<sup>97</sup> Units from the 74th Division were also instructed in cooperation with tanks – a weapon that had very limited use in the desert conditions of Palestine.<sup>98</sup> This instruction involved demonstrations, lectures, and individual battalion and brigade all-arms 'tactical exercises', involving both tanks and contact aeroplanes.<sup>99</sup> The

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<sup>93</sup> TNA, WO 95/1787, 11th Division GS War Diary, Memo, 11th Divisional School of Instruction, 23 July 1916.

<sup>94</sup> *Ibid.*, 26 August 1916.

<sup>95</sup> TNA, WO 95/2645, 42nd Division GS War Diary, 11-31 July 1917; AWM, AWM4 1/44/8, 2nd Australian Division GS War Diary, 29 March 1916.

<sup>96</sup> Forrest, 'The 52nd (Lowland) Division', p. 302; TNA, WO 95/3148, 74th Division GS War Diary, 18 May 1918.

<sup>97</sup> Ogilvie, *The Fife and Forfar Yeomanry*, p. 120. See also TNA, WO 95/3153/4, 16th Battalion Royal Sussex Yeomanry War Diary, 14 May 1918.

<sup>98</sup> Harris, *Men, Ideas and Tanks*, p. 183; D. G. Brown, *The Tank in Action* (London: William Blackwood & Sons, 1920), p. 88.

<sup>99</sup> TNA, WO 95/3148, 74th Division GS War Diary, 30 June 1918; TNA, WO 95/3154, 231st Brigade War Diary, 12 June 1918 and 22 June 1918.

division's formations were also lectured on the training of platoons for open warfare, along with the practice of trench raiding, by officers from the XI Corps and the 1st Australian Division.<sup>100</sup>

Once formations had reached a certain level of proficiency through demonstrations, theoretical training, and attachments, they were expected to carry out tactical exercises in the form of raiding and patrolling. Raiding was an exercise that elicited conflicting opinions. For some, it was a 'foul, mean, bloody, murderous orgy', but for others it was a means of trialling different tactics.<sup>101</sup> Mark Connelly argues that raiding was often 'the only way to test and sharpen infantry skills short of major offensive action'.<sup>102</sup> In a letter to Birdwood, Hamilton noted how Beauvoir De Lisle believed 'there is nothing like these small aggressive operations for keeping up the pecker of the troops'.<sup>103</sup> Birdwood himself also believed raids to be 'excellent training for all'.<sup>104</sup> Raiding allowed battalions to engage in 'some activity to gain as much information about the enemy and familiarize its own troops with the ground'.<sup>105</sup> It also offered a way of "'climatizing"... troops with the environment in which they were going to conduct the operation'.<sup>106</sup> After arriving at Salonika in mid-December 1916, the 60th Division's battalions were heavily engaged in patrols and raids from February 1917 onwards. Despite the slow operational tempo in Salonika, the 60th Division was able to maintain its *esprit de corps*, and ensure it was ready for offensive operations, by continual raiding. As the months passed, its raiding practices became more complex, sometimes involving up to three battalions at a time.<sup>107</sup> Upon its arrival in Palestine in July 1917, the 60th Division continued with patrolling as a form of training, including 'patrol work by day and night', along with 'outpost work' and specialist

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<sup>100</sup> TNA, WO 95/3154/4, 25th Battalion Royal Welsh Fusiliers War Diary, 12 August 1918; TNA, WO 95/3153/3, 15th Battalion Suffolk Regiment War Diary, 29 July 1918.

<sup>101</sup> T. Ashworth, *Trench Warfare 1914-1918: The Live and Let Live System* (Basingstoke: Pan Books, 2000 [1980]), p. 186.

<sup>102</sup> M. Connelly, *Steady the Buffs! A Regiment, a Region, and the Great War* (Oxford: Oxford University Press, 2006), p. 91.

<sup>103</sup> LHCMA, Hamilton Papers, 7/1/16, Hamilton to Birdwood, 14 June 1915.

<sup>104</sup> IWM, Papers of Field Marshal Lord Birdwood, P216 WRB1, Birdwood to Robertson, 23 July 1916.

<sup>105</sup> A. B. Godefroy, 'A Lesson in Success. The Calonne Trench Raid, 17 January 1917', *Canadian Military History* 8 (2) (1999), pp. 25-26.

<sup>106</sup> *Ibid.*, p. 28.

<sup>107</sup> TNA, WO 95/4926, 60th Division GS War Diary, 17 February 1917 and 7 March 1917.

training.<sup>108</sup> The 74th Division utilised a similar approach during its early months on the Western Front. Small scale raids were conducted at first, usually consisting of one officer and a handful of ORs.<sup>109</sup> In the following months, these increased in scale and intensity, involving artillery and machine gun barrages.

These methods, though developed at higher levels, were often dictated and determined by the formations themselves. There was commonality of method across the different theatres, but corps and divisions were expected to determine the type and duration of each based on their own situation. These institutional methods were also supported by informal, individualised efforts by formations themselves. Commanders made efforts to self-integrate their formations using their own initiative. Darlington, for example, wrote to his wife in June 1915 about Major Hutchinson, a regular officer, who ‘was all through the landing here and attached to us’. Darlington’s first action when arriving at Gallipoli was to apply for someone – in this case Hutchinson - to ‘be attached to give us the tips about trench warfare’.<sup>110</sup>

Sometimes these informal methods took the form of friendly conversations between individuals. Newly arrived at Gallipoli, Colonel Frederick Morrison recalled how an officer in the 2nd Battalion Royal Fusiliers was ‘good enough to let us have a perusal of his Trench Standing Orders’. These standing orders were soon referred to as ‘Napoleon’s Maxims’, proving invaluable as ‘a record of practical experience in trench routine’.<sup>111</sup> Similarly, Drury spent ‘a good while’ talking to both the colonel and the adjutant of the 1/4th Battalion Wiltshire Regiment who had recently arrived in Palestine from India, forming part of the 75th Division. Drury recalled:

... explaining about the new organisation of which he [the colonel] had heard nothing, and telling him how we allot transport loads and arrange loading parties etc. When it came to the subject of baggage, I had to laugh... He didn’t seem to grasp that the bit of stuff piled at our Quarter Guard was our “all” and

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<sup>108</sup> TNA, WO 95/4667, 179th Brigade War Diary, Programme of Training, 5-18 August 1917.

<sup>109</sup> TNA, WO 95/3148, 74th Division GS War Diary, 19-27 July 1918; TNA, WO 95/3153/1, 230th Brigade War Diary, 21 July 1918; TNA, WO 95/3154, 231st Brigade War Diary, 16-18 July 1918.

<sup>110</sup> LHCMA, Darlington Papers, 1/1, 22 June 1915, pp. 55-56.

<sup>111</sup> Morrison, *Highland Light Infantry*, p. 15.

asked what on earth he was going to do with all his stuff, and how he could do without this and that and the other.<sup>112</sup>

Drury's unit was camped next to this new battalion in September 1917, thus providing an ideal environment for the informal sharing of experience and information.

Individualised methods proved to be vital for those formations moving to theatres that lacked existing acclimatising infrastructure, such as the Italian front. Sent over to Italy in November 1917, the IEF was expected to establish its own integration processes. As a result, British units were attached to Italian formations in order to acclimatise to the very different conditions found in the mountains and plains of Italy. The 23rd Division, for example, sent 'parties of 1 officer and 40 OR' from two of its brigades 'to be attached to Italian units'.<sup>113</sup> This attachment served two purposes; first, the XIV Corps (in which the 23rd Division served) was due to relieve the I Italian Corps at Montello and was, therefore, standard practice when conducting a relief; and secondly, as the 23rd Division was new to the area, it gave it the opportunity to familiarise itself with the line to be held. To ensure that the relief went smoothly, the 70th Italian Division left one officer and two NCOs at each unit headquarter for twenty-four hours after relief.<sup>114</sup>

This attachment scheme was an effective way of ensuring British divisions acclimatised to the new theatre as quickly as possible. However, it was not long before British formations were able to challenge and, in some cases, influence Italian methods. Following the relief of the I Italian Corps, the 23rd Division, for 'greater convenience', adopted the Italian defence plan, but it soon began to 'reorganise the defence in accordance with the principles... adopted in France'.<sup>115</sup> Drawing on his previous experience, Macleod also challenged the Italian defence systems. After a series of reconnaissances with his colonel, Macleod deemed the Italian system

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<sup>112</sup> NAM, Drury Papers, 7607-69, Volume 3 Palestine, 27 September 1917, pp. 41-42.

<sup>113</sup> TNA, WO 95/4229, 23rd Division GS War Diary, 28 November 1917. The XI Corps carried out a similar practice in December 1917 – January 1918. See TNA, WO 95/4211, XI Corps GS War Diary, Haking to Vittorio, 23 January 1918.

<sup>114</sup> TNA, WO 95/4229, 23rd Division GS War Diary, Divisional Order No. 12, 1 December 1917.

<sup>115</sup> Sandilands, *The 23rd Division*, p. 224.

to be ‘not altogether sound’. As the Italian trench system ran along the crests of the hills, there was considerable dead ground in which ‘the enemy could form up unseen in the valley, move up, and then rush the trenches in a short assault giving the defence no chance’.<sup>116</sup> It is unsurprising then that a number of British formations in Italy began to revert back to the defensive systems utilised on the Western Front, thus reaffirming the primacy of Western Front methods in other theatres.<sup>117</sup>

As we have seen, the intensive institutional and individual methods experienced by newly arrived formations brought them into contact with neighbouring formations and the existing training infrastructure, allowing them to experience new geographic and tactical conditions in a controlled way. This following section suggests that these methods were a necessary precursor to a formation’s understanding of its new role and its adjustment to the values and norms of the new expeditionary force. For formations, their own acceptance of the new force, along with the acceptance (and eventual commendation) by higher commanders and long serving formations, denotes a successful transition. Similarly, positive operational performance may also provide evidence of successful integration. If a formation is not successfully integrated then it is reasonable to suggest that its operational performance will suffer.

Success in operations provided a good way of challenging initial perceptions of a formation’s ability and effectiveness. Despite its inauspicious performance at Suvla in August 1915, the 53rd Division performed well during the First Battle of Gaza with its capture of Ali Muntar on 26 March 1917. It had ‘reached a high standard of training’, and its troops ‘were thoroughly fit and acclimatized’. For the Australian Light Horsemen watching on, they ‘witnessed a good example of British infantry tradition’.<sup>118</sup> Despite the overall failure of First

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<sup>116</sup> NAM, Macleod Papers, 8112-9, ‘An Artillery Officer’ in the First World War’, p. 193; TNA, CAB 24/32/18, Memorandum: Italian Situation, Cavan to War Office, 10 November 1917.

<sup>117</sup> TNA, WO 95/4237, 69th Brigade War Diary, 3-31 December 1917; TNA, WO 95/4218, 7th Division GS War Diary, Agenda of Divisional Commander’s Conference, 18 April 1918; Edmonds, *Military Operations: Italy*, p. 133.

<sup>118</sup> Falls, *Military Operations: Egypt and Palestine*, I, p. 301.

Gaza, Murray singled out the 53rd Division in his April 1917 despatch, expressing delight at the division's 'enterprise, endurance, skill and leading'.<sup>119</sup>

Marred by its service in Salonika and its limited operational experience, the 60th Division was seen by some as a 'lesser' infantry division.<sup>120</sup> However, its successful performance during the battle of Jerusalem in November 1917 enabled it to overcome this initial prejudice. In a private letter to Shea, Allenby noted that 'the fighting and marching of your Division has been beyond praise. The Turk has been out manoeuvred and out-fought...'<sup>121</sup> For Shea, the division's successful performance was, in part, due to the 'value of previous training', which was 'thoroughly exemplified in getting the men to move quickly in small columns across broken ground, and wide extensions in open country'.<sup>122</sup>

Similarly, Lieutenant-General Sir Richard Haking highly praised the 74th Division in August 1918, despite initial scepticism after its arrival on the Western Front.<sup>123</sup> In September 1918, it also received Rawlinson's praise. In his commendation, Rawlinson noted that the work of the division is 'worthy of the best traditions of the yeomen stock of Great Britain'. The division was 'brought to this country from a hot climate, where they took part in a very different method of warfare... it has quickly adapted itself to the altered conditions, and has fought with a determination and courage which is beyond praise'.<sup>124</sup> The 74th Division's performance on the Western Front also drew praise from neighbouring formations. Upon seeing the 'broken spur' at Faustine Quarry in September 1918, an Australian officer asked if it was the badge of the 74th Division: "'Well", he added, "we call you 'Allenby's harriers', because you're the only division we can't keep up with". Coming from an Australian that was "some" praise'.<sup>125</sup>

The 'Indianisation' of British divisions within the EEF is a particularly successful

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<sup>119</sup> *Ibid.*, p. 319.

<sup>120</sup> I. Ronayne (ed.), *Amateur Gunners: The Great War Adventures, Letters and Observations of Alexander Douglas Thorburn* (Barnsley: Pen and Sword, 2014), p. xii.

<sup>121</sup> TNA, WO 95/4660, 60th Division GS War Diary, 17 November 1917.

<sup>122</sup> *Ibid.*, Memo, Report to XX Corps on lessons from Beersheba and Sheria operations, 13 November 1917.

<sup>123</sup> Ogilvie, *The Fife and Forfar Yeomanry*, pp. 126.

<sup>124</sup> *Ibid.*, pp. 136-137.

<sup>125</sup> *Ibid.*, pp. 144-145.

example of socialisation and operational performance.<sup>126</sup> Although the German spring offensives on the Western Front in 1918 did not begin the process of ‘Indianisation’, they did alter the rate at which it was enacted.<sup>127</sup> Allenby was forced to supply the BEF with infantry units to such an extent that he was left with only one trained ‘all white’ infantry division.<sup>128</sup> The rotation of Indian army soldiers into Palestine began in earnest in April 1918 when the 3rd (Lahore) and 7th (Meerut) Divisions arrived from Mesopotamia. Later battalions arrived from France and India itself. By the summer of 1918, six of seven infantry divisions, and two of four cavalry or mounted divisions in the EEF, were essentially ‘Indian army’ formations.<sup>129</sup>

As James Kitchen argues, the ‘Indianisation’ of the EEF did not take place in a cultural military vacuum. The army had previous experience organising and running imperial armies.<sup>130</sup> The EEF itself had mixed British and Indian formations to create the 75th Division in May 1917.<sup>131</sup> However, given the increased scale of this process, greater thought and preparation was required to integrate these new Indian formations. ‘Indianisation’ represented institutional socialisation in microcosm. In line with GHQ and corps instruction, Indianised divisions arranged for the systematic training and attachment of Indian officers and NCOs to neighbouring formations. The 60th Division, for example, operated a structured programme of attachment, arranging for ‘1 staff officer, 4 regimental officers and 1 machine gun officer’ to be attached to units of the 53rd Division, while ‘two parties of 10 Indian NCOs’ from the 7th Indian Brigade were attached to the 10th Division for two days.<sup>132</sup> Following localised attachments, a party of ‘2 British officers, 4 Indian officers and 8 Indian NCOs’ proceeded to

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<sup>126</sup> For a good overview of the policy of ‘Indianisation’, see J. E. Kitchen, ‘The Indianization of the Egyptian Expeditionary Force: Palestine 1918’, in K. Roy (ed.), *The Indian Army in the Two World Wars* (Leiden: Brill, 2012), pp. 165-90; Kitchen, *British Imperial Army*, pp. 190-213.

<sup>127</sup> Kitchen, *British Imperial Army*, p. 196.

<sup>128</sup> Hughes, *Allenby and British Strategy*, p. 69; TNA, CAB 23/44A/1, Minutes, Committee of Prime Ministers of the Dominions: Imperial War Cabinet meeting 19A, 21 June 1918, pp. 7-11.

<sup>129</sup> Erickson, *Ottoman Army Effectiveness*, p. 126.

<sup>130</sup> Kitchen, *British Imperial Army*, pp. 198-199.

<sup>131</sup> TNA, WO 95/4367, EEF GHQ War Diary, Lynden-Bell to GOC Eastern Force, 26 May 1917; IWM, Lynden-Bell Papers, 90/1/1, Lynden-Bell to Maurice, 17 June 1917.

<sup>132</sup> TNA, WO 95/4660, 60th Division GS War Diary, 3 June 1918.



the XX Corps front for ‘four days instruction in the line’.<sup>133</sup> The 53rd Division conducted a similar programme, sending platoons and companies of the 4/11th Gurkha Rifles and the 3/153rd Indian Infantry to front line formations for instruction.<sup>134</sup> Lectures and demonstrations were also used to great effect. In early August 1918, for example, Lieutenant-Colonel Clive Garsia, GSO1 to the 53rd Division, lectured on elementary topics such as ‘Issue of Orders’, ‘The Use of the Lewis Gun’, ‘Cooperation with MGs’, and ‘Night Patrols’.<sup>135</sup>

Although corps and division often dictated attachments, the problem of language and unfamiliarity with the workings of Indian formations required a certain degree of top-down involvement. EEF GHQ requested plans from its three corps for the ‘provision and training of officers for Indian regiments’ in order to supplement reinforcements arriving from India.<sup>136</sup> In turn, each corps requested proposals from its own divisions for the creation of an Indian army Reserve of Officers – an emergency reserve of British officers for Indian battalions.<sup>137</sup> The culmination of this consultative approach resulted in a GHQ proposal in mid-May 1918 for the provision of a reserve of ‘Hindustani speaking’ officers. This proposal recommended the training of six officers per British battalion in Hindustani, and duties with Indian troops for potential employment in an Indian battalion. As part of this training, officers were required to undergo an attachment to an Indian battalion for fourteen days, while receiving instruction in simple conversation, disposal of simple disciplinary cases and petitions, the customs of Indian troops, and the reading and writing of messages in Roman Urdu.<sup>138</sup> To facilitate this programme, GHQ requested munshis from India to help teach officers colloquial Hindustani so as to ensure ‘better co-operation between British and Indian units’.<sup>139</sup> In keeping with its fondness for flexibility, GHQ was keen to point out that it did not intend to ‘lay down any

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<sup>133</sup> TNA, WO 95/4667, 179th Brigade War Diary, 1 July 1918.

<sup>134</sup> TNA, WO 95/4625, 158th Brigade War Diary, 1-22 June 1918.

<sup>135</sup> *Ibid.*, 5-11 August 1918.

<sup>136</sup> TNA, WO 95/4370, EEF GHQ War Diary, 11 May 1918.

<sup>137</sup> TNA, WO 95/4680, 75th Division GS War Diary, 24 May 1918.

<sup>138</sup> TNA, WO 95/4370, EEF GHQ War Diary, ‘Minutes of Commander-in-Chief’s Conference’, 12 May 1918.

<sup>139</sup> *Ibid.*, GHQ to Chief Simla, E.A.1225, 16 May 1918. A ‘munshi’ was a secretary or a language teacher.

uniform standard', providing that corps schemes aligned with its general proposal. This allowed each corps to respond to its own situation when determining the number of officers to be trained and the length of the attachment. Given the diverse classes of Indian battalions within their formations, corps were encouraged and empowered to determine the best course of action themselves.

In addition to these measures, officers were also required to staff Indian formations. Conversations took place between the War Office, Simla, and BSF and EEF GHQs regarding staff appointments and liaison officers. However, flexibility remained the army's maxim. In September 1918, a telegram from the War Office advised that each force's 'demands for Indian Staff and Departmental Officers should be made by them as found necessary'.<sup>140</sup> As to the appointment of a liaison officer between Simla and the two expeditionary forces, the War Office recommended that an officer from 'Indian Headquarters visit Egypt and Salonika occasionally to discuss questions of welfare of troops, provision of, and training of, reinforcements'.<sup>141</sup> It was undesirable to 'lay down hard and fast rules' in this respect, suggesting an ad hoc approach towards BSF and EEF personnel requirements.<sup>142</sup>

Where possible, Indian army officers were appointed to divisional and brigade staffs. At a XX Corps conference in May 1918, Major-General Sir John Longley (GOC 10th Division) highlighted 'the desirability of having Staff Officers of Indian experience on Brigade and Divisional staffs'.<sup>143</sup> For some British officers, this would be the first time that they had commanded Indian army troops in operations.<sup>144</sup> Those who did have experience were happy to share it with the rest of the force. Shea, for example, wrote a paper describing the 'characteristics, prejudices etc of Indian troops and the relations which should exist between

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<sup>140</sup> TNA, WO 95/4371, EEF GHQ War Diary, War Office to EEF GHQ, 17 September 1918.

<sup>141</sup> Lieutenant-General Sir G. M. Kirkpatrick (CGS, Indian army) was the chosen officer. See TNA, WO 95/4568, 10th Division GS War Diary, 21 October 1918; TNA, WO 95/4680, 75th Division GS War Diary, 21-22 October 1918.

<sup>142</sup> TNA, WO 95/4371, EEF GHQ War Diary, War Office to EEF GHQ, 17 September 1918.

<sup>143</sup> TNA, WO 95/4481, XX Corps GS War Diary, 'Notes on Corps Commander's Conference', 10 May 1918.

<sup>144</sup> *Ibid.*, 'Notes on Corps Commander's Conference', 31 May 1918.

them and British troops', which was circulated within the XX Corps and beyond.<sup>145</sup> The presence of Indian army staff officers provided a guiding hand when administering these new formations. In the 53rd Division, Major Evelyn Willis, an officer in the 58th Rifles, assumed the position of GSO2 on 1 July 1918;<sup>146</sup> while in the 60th Division, Captain Gerald Simson, an officer in the 34th Poona Horse, was appointed as Staff Captain to the 179th Brigade.<sup>147</sup> Familiar with the customs and languages of the Indian army battalions, both Willis and Simson were well placed to ensure that the administrative well-being of the Indian battalions was taken in hand.

Running alongside these institutional methods was the more informal act of socialising. In the 60th Division, Shea held a *darbar* for the newly arrived Indian army officers.<sup>148</sup> An event associated with the British Empire in India, the *darbar* served to welcome new officers in a way that was instantly recognisable to them. Socialising was also practised further up the chain of command. On 4 September 1918, Chetwode, another Indian army officer, 'entertained all Indian Officers to tea' at corps HQ.<sup>149</sup> According to Kitchen, this helped to 'reinforce the personal leadership bonds' between the senior commanders and the men who would lead the *sepoys* into action.<sup>150</sup> These social and cultural events were also extended to NCOs and ORs through sporting events and training competitions. In August 1918, the 179th Brigade held a 'brigade Lewis Gun competition' to decide on representative British and Indian formations for the XX Corps competition, while the 4/11th Gurkha Rifles held its own sports event attended by senior generals.<sup>151</sup> This fostered *esprit de corps* and inculcated a sense of unity within the newly reorganised divisions.

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<sup>145</sup> *Ibid.*

<sup>146</sup> TNA, WO 95/4615, 53rd Division GS War Diary, 1 July 1918.

<sup>147</sup> TNA, WO 95/4667, 179th Brigade War Diary, 8 June 1918.

<sup>148</sup> *Ibid.*, 10 July 1918.

<sup>149</sup> *Ibid.*, 4 September 1918.

<sup>150</sup> Kitchen, *British Imperial Army*, p. 210.

<sup>151</sup> TNA, WO 95/4667, 179th Brigade War Diary, 23 August 1918; TNA, WO 95/4625, 158th Brigade War Diary, 2 August 1918.

The true test of the effective reorganisation and socialisation of Allenby's EEF was the renewal of offensive operations in late 1918. Forced to postpone large scale operations due to the reorganisation, Allenby launched the battle of Megiddo on 19 September 1918. For the 60th Division, its part in the battle represented its first operation since the second Trans-Jordan raid in May 1918. Between May and September 1918, the division's experience of operations came from a series of small scale raids in which its Indian battalions performed well.<sup>152</sup> This experience was mirrored in the 10th Division. Troops from the 1/54th Sikhs and 1/101st Grenadiers raided an enemy position on 12 August 1918 alongside Indian battalions from the 60th Division. In his after action report, Longley commented that, although the 'Indian troops were new to the Division', the operation 'afforded a good illustration of their value. They showed that they could carry out movements in complete silence, that they could carry out a complicated operation in the dark with great speed and without confusion. They showed the greatest determination, dash and initiative'.<sup>153</sup>

Reports on the successful performance of the Indianised divisions during the Megiddo campaign referenced the impact of the reorganisation. Shea noted that 'on the 19th September (48 days after the Division had been reorganised), the men closed with their enemy with eagerness and determination... on this day the new 60th Division "found itself"'.<sup>154</sup> For Major-General Stanley Mott (GOC 53rd Division), the fact that his division was 'only a very few weeks before operations commenced... to all intents complete' made 'the fine performance of the Indian troops... all the more remarkable'.<sup>155</sup> Upon reading Mott's account, Chetwode commented that it was 'a modest account of an excellent piece of work'.<sup>156</sup> Although it is clear that the divisions performed well during the Megiddo campaign, it is important to consider the strength and nature of the enemy across from them. It begs the question as to whether Allenby

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<sup>152</sup> TNA, WO 95/4660, 60th Division GS War Diary, 12-13 August 1918.

<sup>153</sup> TNA, WO 95/4568, 10th Division GS War Diary, 'Report on Operation on 12-13 August 1918', n.d.

<sup>154</sup> TNA, WO 95/4660, 60th Division GS War Diary, 'Narrative on Operations', 6 October 1918.

<sup>155</sup> TNA, WO 95/4615, 53rd Division GS War Diary, 'Narrative on Operations in the Palestine Campaign, September 1918', 1 October 1918.

<sup>156</sup> *Ibid.*

and his reorganised force were simply pushing against an open door. As Erickson comments, Megiddo was ‘the worst defeat suffered by the Ottoman Army... at the hands of the British army’ during the First World War.<sup>157</sup> Yet the Ottoman army’s successful performance against Allenby’s earlier Trans-Jordan raids suggests it had retained much of its combat effectiveness and capability. However, as 1918 progressed, it grew gradually weaker in terms of morale and manpower as a result of disease and desertion.<sup>158</sup> It had lost a number of its German advisors, its unit strengths diminished, and it was in the middle of a supply crisis. As David Stevenson notes, the Ottoman army was ‘rotting from within’.<sup>159</sup> Despite continued training in German-style assault tactics, the Ottoman army at Megiddo lacked tactical mobility and the ability to wage effective counter-attacks.<sup>160</sup> Although it was still a tenacious adversary, it was a decreasingly effective army. The EEF’s quantitative and qualitative superiority ensured that a likely British success at Megiddo turned into an Ottoman rout. In addition to this, the promotion of a systematic retraining and socialisation programme ensured that the most current tactics, weapons, and methods of command were embedded into the EEF. As Erickson persuasively argues, method, not men, was the key to Allenby’s success in the closing stages of the Palestine campaign.<sup>161</sup>

Though the integration of formations was an important precursor for operational cohesion and effectiveness, it was not a one way process. There is much to be said for the impact and benefits that newcomers had on their expeditionary forces. As we have seen, this impact was obvious at the highest levels of command with generals like Allenby, Cavan, and Maude. Their position of authority and their considerable experience allowed them to challenge existing practice and initiate new ways of working. However, the ability to challenge existing practice was not just

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<sup>157</sup> Erickson, *Ottoman Army Effectiveness*, p. 118.

<sup>158</sup> *Ibid.*, pp. 122-123.

<sup>159</sup> D. Stevenson, *With our Backs to the Wall: Victory and Defeat in 1918* (London: Allen Lane, 2011), p. 149.

<sup>160</sup> Erickson, *Ottoman Army Effectiveness*, pp. 141-142.

<sup>161</sup> *Ibid.*, p. 151.

limited to higher command. There are examples of newly arrived formations sharing their experience at a local level. The process of acclimatisation was not passive. It was influenced by factors such as culture, identity and, for the purposes of sharing experience, the appropriate environment and command structure. In some instances, formations were willing to share their recent experiences with others. Less easy to ascertain is whether the recipient assimilated or acted on this experience.

British formations in Italy, for example, were able to share their previous experience with Italian formations. IEF commanders and staff officers had been 'well received' by their Italian counterparts and had 'seized opportunities of throwing out suggestions' regarding defensive arrangements.<sup>162</sup> In a report to Robertson, General Sir Herbert Plumer wrote that Italian officers frequently visited the British sector, resulting in the Italians thinning their lines and adopting the British system of machine-gun employment for both defence and offence.<sup>163</sup> In addition to this, hints and tips on training, instructions on defence plans, and British SS pamphlets were translated into Italian in anticipation of their distribution to Italian formations. The sharing of experience required great sensitivity on the part of the British, however. The Italians were willing to learn from the experience of the British, but they were 'proud and sensitive', and would not respond well to 'any appearance of superiority or of imparting instruction'.<sup>164</sup> For Plumer, demonstration, illustration, and the dropping of hints were the most effective means of sharing British experience.<sup>165</sup> Steps were also taken to establish inter-allied training schools as a further means of sharing knowledge. Plumer informed Robertson that:

... we have started our schools and are taking some French officers and have asked the Italians to send officers - as many as they like up to 100... I hoped the Italians would have accepted the offer and I think they eventually will, but they are very sensitive, especially as regards the French, and any attempt at pressure is fatal.<sup>166</sup>

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<sup>162</sup> Edmonds, *Military Operations: Italy*, pp. 133-134.

<sup>163</sup> TNA, CAB 24/39/94, Memorandum on Italian Situation, 18 January 1918, pp. 2-3.

<sup>164</sup> *Ibid.*, p. 5.

<sup>165</sup> TNA, CAB 24/37/69, Memorandum: Italian Situation, 2 January 1918.

<sup>166</sup> LHCMA, Robertson Papers, 8/3/47, Plumer to Robertson, 21 January 1918.

These schools encouraged Italian officers to ‘come and witness demonstrations carried out by the NCOs and men’.<sup>167</sup> As a result, the Italians began to organise their schools along similar lines with British, French, and Italian forces attending each other’s courses. According to Lieutenant-General Arthur Floyer-Acland, a former staff officer in the 7th Division, this led to a ‘constant interchange of ideas’ between the three forces.<sup>168</sup>

Within the army, there was a culture of knowledge sharing, which underpinned the above example. Though new formations could influence those who had been in theatre longer, reliefs, conferences, and informal conversations between formations intra-theatre were far more common. The 69th Brigade’s adoption of a Western Front style defence in depth method in December 1917, for example, drew considerable praise from Cavan. In a note to his divisions, Cavan wrote how ‘everyone can learn’ from the 69th Brigade and that its work was ‘in advance of anything that is being carried out at the moment’. He requested ‘all units of the Corps to study, and where possible to initiate, the system which is to be seen in this Brigade sector’.<sup>169</sup> The 7th Division acted on Cavan’s request, despatching officers to visit the 69th Brigade’s defensive system in January 1918. Unfortunately, neither the 7th Division’s war diary nor its divisional history provides evidence as to whether the 69th Brigade’s system was adopted or not. However, given that British commanders and staffs were sharing defence in depth tips with Italian forces, there is a strong possibility that the 7th Division would have employed similar principles for the sake of uniformity. It is clear then that, rather than working in silos, formations were encouraged to learn from one another and adopt methods where appropriate.

Such examples are prominent on the Western Front. When the I ANZAC was sent to relieve the Canadian Corps in the Ypres sector in 1916, Brudenell White handed over a sheaf of papers to his counterpart, Brigadier-General Percy Radcliffe (BGGs, Canadian Corps). Both officers knew each other from Staff College and the War Office, so this represented a very personalised method of information exchange. Within this sheaf of papers was ‘some useful

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<sup>167</sup> IWM, Papers of Lieutenant-General A. N. Floyer-Acland, Memoirs, p. 74.

<sup>168</sup> *Ibid.*, p. 78.

<sup>169</sup> TNA, WO 95/4237, 69th Brigade War Diary, Memo from XIV Corps, 27 December 1917.

notes by one of our best brigade commanders... his orders for certain operations... some training orders by the same brigade... [and] a sample of divisional orders, which are the best available, although they go into a great amount of detail'.<sup>170</sup> Copies of these documents were passed down to all Canadian divisions. The Canadians reciprocated in kind, furnishing the I ANZAC with copies of maps and schemes for the sector to be taken over.<sup>171</sup> The exchange of knowledge and best practice upon relief was not uncommon. During the 229th Brigade's relief of the 230th Brigade on the 74th Division's front in July 1918, some of the papers handed over included 'files from 61st Division, including... action in case of attack... raids, signalling, artillery, trench mortars', along with other administrative aspects.<sup>172</sup> Even though there was a systematic process for doctrine dissemination by 1918, horizontal learning ensured that localised knowledge was retained and passed on to incoming formations.

The process of integrating combat formations went beyond the institutional methods developed by the army. Reinforcing its distaste for prescription, the army was unwilling to enforce a homogeneous approach to integration. Although there was commonality of method across the army's operational theatres, the expeditionary forces themselves were not unitary. Instead, it was left to individual corps and divisions to decide the order and extent to which these institutional methods were utilised. The nuances in the army's process had to reflect the operational and geographical demands in theatre, along with the number of formations to be integrated. Although it could have been doctrinaire in its approach, the army established flexible parameters within which its forces could operate.

This flexible approach gave formations the opportunity to self-integrate. Though functioning within a broader context, divisions and brigades arranged their own attachment

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<sup>170</sup> Quoted in K. Radley, *We Lead Others Follow: First Canadian Division 1914-1918* (St Catharines, ON: Vanwell, 2006), p. 90.

<sup>171</sup> R. Stevenson, *To Win the Battle: The 1st Australian Division in the Great War, 1914-1918* (Melbourne, VIC: Cambridge University Press, 2013), pp. 157-158.

<sup>172</sup> TNA, WO 95/3153, 230th Brigade War Diary, 'List of Papers handed over to 229th Infantry Brigade', 24 July 1918.



schemes, along with lectures and demonstrations to suit their needs. This bears out the army's reputation as a flexible organisation, whilst highlighting its willingness to learn. These individual methods were often supplemented by informal conversations or exchanges between neighbouring formations. This, coupled with a new formation's willingness to share its previous experiences with its neighbours, demonstrates that horizontal learning was practiced within the British army. Through this, localised knowledge endured and could be passed on to others in a timely manner. Formations had the ability to propagate knowledge, carrying it with them like pollen on the legs of a bee.

Though the army's integration process was holistic, it was by no means smooth. Formations did not instantly 'get up to speed' upon arrival, nor did they wholeheartedly embrace the culture and norms of their new expeditionary forces. Given the army's culture of sub-cultures, it is unsurprising that integration took time, effort, and significant adjustment. Prejudice and snobbery did exist. However, by refusing to enforce a standardised integration policy, the army increased the likelihood that formations would develop their own personalised and, arguably, more effective way of acclimatising to their new force.

## CHAPTER 6

### ‘NEVER AT HEART A REGULAR SOLDIER’

From humble beginnings as largely irregular forces on the outbreak of war, the units of the AIF ended the war as one of the self-proclaimed ‘shock troops’ or *corps d’élite* of the British army. However, for official historian Charles Bean, the Australian soldier was not ‘a material to be treated according to pure British drill-book methods’. He was ‘never at heart a Regular soldier’.<sup>1</sup> The soldiers of the AIF came from a culture that was independent, resourceful, and freer from class distinction than most. This trope, starting with Bean and reemerging in the 1970s, aligns with an idea of Australian national identity. It portrays developing Australian identity during the First World War as independent of, and in conflict with, British identity.<sup>2</sup> Bean fostered this ‘Anzac Spirit’ within the Australian official histories, portraying the men of the AIF as egalitarian and classless.<sup>3</sup> According to Bean, this ‘absence of social distinction encouraged the initiative which was the outstanding quality of Australian troops’.<sup>4</sup>

Historians such as Jeffrey Grey have taken issue with Bean’s eulogising, arguing that the AIF’s ‘volunteer nature [and] the influence of the bush’ does not explain its military quality, nor was the ‘often undefined quality of “mateship”’ a phenomenon unique to the AIF.<sup>5</sup> However, despite the best efforts of Australian historians, the popular perception of the Australian as a natural born warrior remains.<sup>6</sup> This perception is underscored by the AIF’s homogeneity. Like the Canadian formations, Australian divisions on the Western Front were not split up among British corps. Instead, they were kept together wherever possible, first in I and II

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<sup>1</sup> C. E. W. Bean, *The Official History of Australia in the War of 1914–1918: The Story of ANZAC from the outbreak of war to the end of the first phase of the Gallipoli Campaign, May 4, 1915*, I (12 vols, Sydney, NSW: Angus and Robertson, 1941), pp. 126-127.

<sup>2</sup> Connor, *Anzac and Empire*, pp. 1-2; N. Meaney, ‘Britishness and Australia: Some reflections’, *Journal of Imperial and Commonwealth History* 31 (2) (2003), p. 124.

<sup>3</sup> N. Wise, ‘The Lost Labour Force: Working-Class Approaches to Military Service during the Great War’, *Labour History* 93 (2007), p. 172.

<sup>4</sup> C. E. W. Bean, *Anzac to Amiens* (Canberra, ACT: Australian War Memorial, 1983 [1946]), p. 537.

<sup>5</sup> J. Grey, *A Military History of Australia* (Cambridge: Cambridge University Press, 2000 [1999]), pp. 106-108.

<sup>6</sup> See J. Brown, *Anzac’s Long Shadow: The Cost of our National Obsession* (Collingwood, VIC: Redback, 2014) for a recent critique of this popular perception.

ANZAC before their eventual grouping into the Australian Corps in November 1917. According to the British official history, this homogeneity played a key role in enhancing the AIF's combat effectiveness and *esprit de corps*.<sup>7</sup> However, it cannot be seen as the only reason for this effectiveness, particularly when one considers the experience of AIF units in the EEF. These units were mixed with other Imperial units, yet they still managed to maintain high levels of combat effectiveness. Homogeneity and national identity were not solely responsible for the transformation of a largely untrained, irregular force into a high performing instrument within the British military machine. This chapter suggests that this transformation was largely due to the integration mechanisms developed by the British army before and during the First World War.

The army was required to develop and, in some cases, refine a number of learning methods to integrate new formations into its organisation - whether they were national contingents like the Australians and Canadians, or territorial and Kitchener army divisions. With the influx of civilian soldiers, the army could have been doctrinaire in its attitude. Instead, it pursued a pragmatic approach, priding itself on its ability to adapt to changing environments and situations. Although it was prepared to coordinate at higher levels as with the EEF's 'Indianisation', it tolerated and, at times, encouraged the development of informal methods. As we shall see, this flexibility was important given the Australian government's ultimate control over Australian forces serving in the British army.

This chapter examines whether the army was successful when integrating national contingents into its organisation. While acknowledging the importance of homogeneity and the amount of self-governance afforded to the AIF, this chapter examines the methods employed by the army to facilitate the AIF's integration. It also argues that, in addition to these mechanisms, a certain amount of flexibility existed within the army's organisation, enabling the AIF to 'self-integrate'. The chapter first considers the state of the Australian force on the outbreak of war,

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<sup>7</sup> J. E. Edmonds, *History of the Great War: Military Operations, France and Belgium 1918*, V (5 vols., London: HMSO, 1947), pp. 179, 610-611.

including the establishment of the Commonwealth Military Forces [CMF], interoperability with the British army, and its experience of working as part of the British army during the Boer War. Secondly, it outlines the army's institutional methods for integrating the AIF during the First World War. These include command appointments, particularly the role of Lieutenant-General Sir William Birdwood, mentoring and attachments, military publications, and training schools. Thirdly, it considers some of the methods used by the AIF to self-integrate into the expanded army, with particular focus on the efforts of the 3rd Australian Division. This division offers a useful case study: it was the last Australian division raised, it carried out the majority of its training on Salisbury Plain, and was commanded by an Australian, Major-General John Monash, from the outset. Finally, the chapter outlines some of the tensions that accompanied the Australians' integration, notably British perceptions of these newcomers.

Australia's defence arrangements were shaped by her isolation. Following Australia's federation in 1901, Major-General Sir Edward Hutton, a British regular officer, was appointed to command the newly formed CMF and charged with organising Australia's disparate forces into a homogeneous federal force.<sup>8</sup> The CMF's sole purpose was that of home defence. The 1903 Defence Act stipulated that members of the CMF could not be compelled to serve beyond Australia and its territories. Predominantly civilian in nature, the CMF only had a small cadre of permanent soldiers. Within the officer corps, the militia dominated, while a small number of professional officers were responsible for training, administration, and technical tasks.<sup>9</sup> In 1912, for example, the strength of Australia's military forces totalled 23,696. Of this number, 2,235 were full-time soldiers, while 21,127 were citizen soldiers.<sup>10</sup>

Hutton, arguably driven by imperial rather than national objectives, called for the

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<sup>8</sup> The establishment and evolution of Australia's post-federation force has been covered in Grey, *A Military History of Australia*, pp. 63-79, and A. Palazzo, *The Australian Army: A History of its Organisation 1901-2001* (Melbourne, VIC: Oxford University Press, 2001).

<sup>9</sup> Connor, *Anzac and Empire*, p. 14.

<sup>10</sup> G. H. Knibbs, *Official Yearbook of the Commonwealth of Australia, 1901-1912 No. 6* (Melbourne, VIC: McCarron, Bird and Co., 1913), p. 1047. The remaining 334 were made up of 'Volunteers' and 'Area Officers'.

creation of a professional mobile field force, which would number approximately 14,000 men in peacetime and increase to almost 29,000 in wartime. Unlike the CMF, this force was to be capable of serving wherever the Australian government desired. The Australian government, then in the middle of austerity measures and suspicious of Hutton's imperial ambitions, quickly dismissed the idea of a field force. The development of the Australian forces from federation up to 1914 was dominated by the struggle between 'Imperialists' (men such as Hutton and his protégé Brudenell White) and 'Australianists' (officers such as John Hoad and James Legge). The latter group took an independent view of Australia and desired the promotion of her domestic interests over imperial priorities. Though the idea of a field force was initially dismissed, compulsory military training, including mandatory cadet training for schoolboys, was instituted in 1909, just before Kitchener's arrival to inspect Australia's defences and military organisation.<sup>11</sup> However, it was not until 1912 that Australia, in partnership with New Zealand, turned her attentions to planning for the possibility of creating an expeditionary force for service overseas.

Much as there was a struggle between the 'Imperialists' and 'Australianists', there was also rivalry between the CMF's permanent and militia officers. Often viewed as a product of the interwar years, reaching its zenith during the Second World War, this rivalry was in fact evident from the creation of the militia.<sup>12</sup> Lieutenant-General Sir James McCay's biographer, for example, notes that in the 'hot-house world' of the Australian military, McCay's 1907 appointment to the role of Director of the Australian Intelligence Corps led to conflict with permanent officers 'who would have resented a militia officer holding such a senior position'.<sup>13</sup> This rivalry did not lessen during the First World War. Writing to Brudenell White in

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<sup>11</sup> Stevenson, *To Win the Battle*, p. 13.

<sup>12</sup> For interwar and Second World War rivalry, see D. M. Horner, 'Staff Corps versus Militia: The Australian Experience of World War II', *Defence Force Journal* 26 (Jan/Feb 1981), pp. 13-26; M. Johnston, *At the Front Line: Experiences of Australian Soldiers in World War II* (Cambridge: Cambridge University Press, 1996), p. 192; G. Pratten, *Australian Battalion Commanders in the Second World War* (Melbourne, VIC: Cambridge University Press, 2009); K. James, *The Hard Slog: Australians in the Bougainville Campaign, 1944-45* (Melbourne, VIC: Cambridge University Press, 2012).

<sup>13</sup> C. Wray, *Sir James Whiteside McCay: A Turbulent Life* (Melbourne, VIC: Oxford University Press, 2002), pp. 80-81.

September 1918, Chauvel remarked on ‘the intrigues going on in London’, blaming ‘the old ill feeling amongst the Victorian militia officers against the permanent forces... they want to get one of their own men into power’.<sup>14</sup>

Though a self-governing dominion, Australia’s defence policy and organisation were still part of the wider question of Imperial defence. This required the interoperability of British and dominion forces. In case of major conflict, it was expected that the Empire’s forces would combine to fight the common foe.<sup>15</sup> Interoperability was promoted in a number of ways: through shared publications, education and training, and the attachment of British officers.<sup>16</sup>

The Imperial conferences, particularly those of 1909 and 1911, also played an important role in promoting interoperability.<sup>17</sup> It was as a result of these conferences that British training manuals, including *Combined Training*, the *Field Service Pocket Book* (1906), and *FSR* were provided to the dominion forces. At the 1909 conference, Colonel Justin Foxton, the Australian representative, noted that the adoption of such manuals ‘seems to me almost to go without saying... the field service regulations and training manuals ought to be adopted if the principles proposed... are to work out satisfactorily’.<sup>18</sup> This decision went some way to establishing uniformity, as well as ensuring dominion forces were up to date with the latest tactical and administrative methods.

Education and training were also brought into line. A number of places were set aside for dominion officers at the two Staff Colleges from 1905 onwards. Both Brudenell White and Thomas Blamey attended Staff College at Camberley and Quetta respectively. It is perhaps no surprise that they both went on to hold senior staff appointments during the war: Brudenell White served as MGGS Fifth Army, and Blamey as BGGs Australian Corps. On the outbreak

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<sup>14</sup> NLA, White Papers, MSS 5172 2.3/43, Chauvel to White, 9 September 1918.

<sup>15</sup> Connor, *Anzac and Empire*, p. 14; J. Bou, ‘Ambition and Adversity: Developing an Australian Military Force, 1901-1914’, *Australian Army Journal* 9 (1) (2012), p. 80.

<sup>16</sup> See B. D. Faraday, ‘Half the Battle: The Administration and Higher Organisation of the AIF 1914-1918’, Unpublished PhD Thesis, University of New South Wales, 1997, for a fuller exposition of these attempts at interoperability.

<sup>17</sup> R. A. Preston, ‘The Military Structure of the Old Commonwealth’, *International Journal* 17 (2) (1962), pp. 98-121.

<sup>18</sup> TNA, CAB 18/12A, Imperial Conference: Proceedings Volume 1, 1909, p. 21.

of war in 1914, however, Australia could only call on thirteen Staff College graduates [*psc*], including four British officers on secondment.<sup>19</sup> In addition to Brudenell White and Blamey, the seven other Australian *psc* officers also achieved noteworthy positions by the end of the war: Cecil Foott served as Chief Engineer, Australian Corps; Eric Harrison and John Lavarack served as GSO1s to the 3rd and 4th Australian Divisions respectively; Edgar Reynolds was GSO for Aviation in the Australian Flying Corps throughout the war; Henry Macartney commanded the 3rd Brigade Australian Field Artillery, while Edmond Drake-Brockman commanded the 4th Australian Brigade. James O'Brien was invalided home in July 1915, whilst serving as second-in-command to the 8th Light Horse Regiment.<sup>20</sup>

The extension of Staff College training to the dominions allowed the adoption of uniform procedures across the Commonwealth. The common system of staff education and training influenced the dominions' decision to adopt British promotion examinations for their regular officers. Australia adopted this system in 1909 with some amendments to reflect the different organisation and administration within the CMF.<sup>21</sup> These overarching changes to the military education system were further enhanced by the establishment of the short-lived *Commonwealth Military Journal* in 1911, which published articles by British and Australian soldiers on aspects such as 'infantry formations in the attack, modern musketry training, aviation, wireless telephony and night operations'.<sup>22</sup> Australia also had access to the United Services Institutes, established on the British model, in Sydney and Melbourne, where officers were able to read and discuss current military publications and literature from overseas.<sup>23</sup>

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<sup>19</sup> Out of the thirteen officers, Cyril Brudenell White, Henry Macartney, Edgar Reynolds, Cecil Foot, and John Lavarack were Camberley graduates. Edmond Brockman, Eric Harrison, Thomas Blamey, and J. C. O'Brien were Quetta graduates, while John Gellibrand, Duncan Glasfurd, Charles Gwynne, and Francis Irvine were British officers that had graduated from Camberley.

<sup>20</sup> National Archives of Australia [NAA], B2455, Service Record of Major James Charles O'Brien.

<sup>21</sup> TNA, CAB 18/13B, Imperial Conference: Papers laid before the Conference 1911, 'Examination of the Promotion of Officers of the Permanent Forces of the Dominions', n.d., p. 9.

<sup>22</sup> 'Commonwealth Military Journal', *The Western Mail*, 17 June 1911. Publication of the *Commonwealth Military Journal* was suspended in 1916 for economic reasons, but also because 'officers do not require to have the theories of warfare put before them while engaged in the real thing'.

<sup>23</sup> Grey, *A Military History of Australia*, p. 77.

Along with shared publications and training, the CMF also benefitted from the attachment of British regular officers. These attachments were notable on the directing staff of the Royal Military College, Duntroon, and included Colonel Charles Gwynn (Director of Military Art) and Colonel Ewen Sinclair-Maclagan (Director of Drill) – the latter going on to command the 4th Australian Division during the war. There were a number of other secondments to the Australian force, including Duncan Glasfurd who was appointed Director of Military Training in 1912 to oversee and inspect compulsory training under the cadet scheme; Henry Clogstoun, appointed as Director of Works in 1912 to help reorganise Australian military engineers; and Harold Mackworth, appointed as Director of Army Signals.<sup>24</sup>

As we have seen, attempts at interoperability between Britain and Australia had steadily gained impetus during the few years preceding the First World War. However, one of the most important military encounters involving the two nations occurred during the Boer War. Over 16,000 Australians served, forming an integral part of the Imperial Army. For the most part, these Australian ‘volunteers’ served under British commanders, with some of the latter going on to play an important role in the AIF’s development and integration during the First World War. These commanders included Rawlinson; Hamilton; Birdwood; Allenby, who had commanded a squadron of New South Wales Lancers; and Plumer, who had commanded a mixed force of Australians, Canadians, and Rhodesians at Mafeking. In a 1916 letter to Sir George Pearce, Godley was delighted to ‘hear that the others [I ANZAC] have gone into General Plumer’s army, as he had so many Australians under him in South Africa, and knew them and liked them, and they knew and liked him’.<sup>25</sup> Henry Gullett, the Australian official historian of the Sinai and Palestine campaign, remembered Allenby’s visit to an Australian unit in the desert where many of the men were drunk. The men struck matches on Allenby’s car and ‘almost leaned on him.

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<sup>24</sup> Glasfurd served as GSO1 1st Australian Division (1914-1916) and then as commander of 12th Brigade AIF (1916). He was killed in action on 12 November 1916. Clogstoun served as OC 3rd Field Company, AE (1914-1916); CRE 3rd Australian Division (1916-1918); and CRE XIII Corps (1918). Mackworth served as CO 1st Australian Division Signal Company (1914-1915); OC Signals, Dardanelles Army (1915-1916); DDAS, EEF (1916-1917); attached to AIF HQ, Cairo (1917-1918).

<sup>25</sup> AWM, Papers of General Sir A. Godley, 3DRL/2233, Godley to Pearce, 27 April 1916.



The tighter they were the closer they wished to get to him'. Allenby 'took it well', writing an 'appreciative note' to the unit's commander, Major-General Sir Granville Ryrie.<sup>26</sup>

Although the Australians were under British command during the Boer War, some officers served in staff positions in British formations. The war also provided future AIF commanders and staff officers with the experience of operating within a larger British force.<sup>27</sup> Major-General William Bridges, the original commander of both the AIF and the 1st Australian Division, had served in the Boer War in a divisional staff appointment before going on to become the first commandant of Duntroon and Inspector-General of the army.<sup>28</sup> Bridges' war service brought him into contact with individuals such as Hamilton, whilst his staff appointments gave him credibility when dealing with British regular officers, particularly in Egypt. In the 1st Australian Division, veterans were well represented in senior staff positions, with twelve of the fifteen officers having served in South Africa. The heads of the division's supporting units were all Boer War veterans except for the commander of the artillery.<sup>29</sup> Other notable AIF officers with Boer War experience included Brudenell White, Chauvel, Legge, John Gellibrand, and William Glasgow – all of whom would go on to hold senior appointments in the AIF during the First World War.<sup>30</sup>

Not only did the Boer War give the Australians the opportunity of working within a British force, it also gave the British officers the opportunity to command Australian irregular forces in combat. In addition to this, Britain also benefitted from the reports of the Inspector-General of Overseas Forces. These reports gave an insight into the state of the dominions' forces. Despite greater alignment between Britain and her dominions, inspections of the

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<sup>26</sup> AWM, Papers of Henry Gullett, AWM40 69, Ts extracts from Gullett's original diaries and notebooks, 'General Murray', n.d.

<sup>27</sup> D. M. Horner, 'The Influence of the Boer War on Australian Commanders in the First World War', in P. Dennis and J. Grey (eds.), *The Boer War: Army, Nation and Empire. The 1999 Chief of Army History Conference* (Canberra, ACT: Army History Unit, 2000), p. 188.

<sup>28</sup> *Ibid.*, p. 179.

<sup>29</sup> *Ibid.*, p. 178.

<sup>30</sup> Brudenell White ended the war as MGGS Fifth Army; Chauvel as GOC Desert Mounted Corps, EEF; Legge as Inspector-General, Australian Military Forces; Gellibrand as GOC 3rd Australian Division; and Glasgow as GOC 1st Australian Division.

Australian forces in the years leading up to the outbreak of war did not make for pleasant reading. The 1912 and 1913 reports, by Major-General George Kirkpatrick, found that the forces were, by and large, as poorly trained and inefficient as they had been since federation.<sup>31</sup> Hamilton's subsequent inspection of the Australian forces in April 1914, though less damning than Kirkpatrick's, highlighted grave deficiencies in training and unit cohesion. The system in place was entirely suited to peacetime conditions, but unlikely to withstand the demands of war for more than a few weeks.<sup>32</sup> Referring to the Australian forces in a pitched battle, Hamilton suggested they would need a 2:1 majority to overcome regular troops from overseas. This large margin was owing to the 'comparative lack of discipline and cohesion'.<sup>33</sup> Given the limited training of recruits – sixteen days per annum, of which only eight were to be spent in camp – it is unsurprising that such deficiencies existed.<sup>34</sup> As we shall see in the next section, the British army had to employ a series of methods to compensate for these deficiencies and help integrate the newly formed AIF during the First World War.

Before detailing some of the integration methods used by the army, it is necessary to outline the AIF's command and control arrangements to show how it functioned within the British military during the war.<sup>35</sup> The AIF was formed on 15 August 1914 under the command of Bridges, and initially constituted the 1st Australian Division (which Bridges also commanded) and the 1st Light Horse Brigade. As commander of the AIF, Bridges reported directly to Sir George Pearce in Melbourne. In a September 1914 Order of Council, Bridges was given powers to promote officers, to change and vary units, to transfer officers and men, and to hire and transfer civilian employees where necessary.<sup>36</sup> This authority resulted in a number of clashes with senior generals, including Lieutenant-General Sir William Birdwood (GOC ANZAC) and General Sir

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<sup>31</sup> Bou, 'Ambition and Adversity', p. 81.

<sup>32</sup> Grey, *A Military History of Australia*, p. 78.

<sup>33</sup> AWM, AWM1 20/5, 'Report on Inspection of the Military Forces of Australia', 24 April 1914, p. 45

<sup>34</sup> *Ibid.*, p. 11. These sixteen days would be supported by six years of cadet training.

<sup>35</sup> For an in depth overview of the creation and administration of the AIF, see Faraday, 'Higher Administration', pp. 40-74.

<sup>36</sup> Faraday, 'Higher Administration', p. 43.

John Maxwell (GOC Egypt). As Bruce Faraday notes, ‘in some areas Bridges was subordinate to Birdwood, in most areas Birdwood was subordinate to Maxwell, but in other areas Bridges was supreme’.<sup>37</sup> To simplify matters, Bridges insisted on working through Birdwood in all dealings with the base in Egypt. After Bridges’ untimely death at Gallipoli in May 1915, command of the AIF initially passed to an Australian, Colonel James Legge, before he was ousted in favour of Birdwood in September of the same year.<sup>38</sup> As with Bridges, Birdwood also had dual command responsibilities, acting as GOC of both the AIF and I ANZAC. As we shall see later, this was a cause for consternation. Birdwood remained undisputed administrative head of the AIF in all theatres, including Egypt and Britain, until he was promoted to command the Fifth Army in 1918.

While the command and administration of the AIF remained stable after Birdwood’s appointment, the establishment of infrastructure for the AIF was required back in Britain. Although a base depot had been established in Egypt under Colonel Victor Sellheim in January 1915, the Australian wounded from Gallipoli were often transferred back to Britain. This led to the creation of the Australian Administrative Headquarters in London in October 1915, under the command first of Colonel Sir Newton Moore and subsequently of the Australian businessman, Brigadier-General Robert Anderson. With the evacuation of Gallipoli in January 1916 and the eventual move of Australian forces to the Western Front, Australian Headquarters was transferred to London in May 1916 where it remained for the rest of the war.

Although the tangled nature of the AIF’s command and administration proved to be problematic, it was, as its name suggests, conceived as part of the British Imperial effort.<sup>39</sup> This required it to integrate into the British army. As we have seen in earlier chapters, the army developed a number of methods for this purpose. These included command appointments, attachments and mentoring, military publications, and training schools. Though there was some

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<sup>37</sup> *Ibid.*; AWM, Papers of C. E. W. Bean, AWM38 6 DRL/606 255/1, White to Bean, 8 May 1924.

<sup>38</sup> Birdwood was officially appointed GOC AIF in September 1916. The appointment was backdated to September 1915.

<sup>39</sup> AWM, Bean Papers, AWM38 6 DRL/606 255/1, White to Bean, 8 May 1924.

resistance to these methods and questions as to their efficacy, the AIF, on the whole, benefitted from its experience of these methods.

Although there was a leavening of officers conversant with the army's processes, the AIF suffered from command inexperience, particularly at brigade level and above. Of the 1st Australian Division's original cadre of 631 officers, only ninety-nine were serving or retired members of British or Australian regular forces, while 104 had previous war experience.<sup>40</sup> This inexperience led to the widespread employment of British and Indian army officers. Birdwood was the most senior of these appointments. Though Bridges had overall command of the AIF, Birdwood was appointed as field commander of the ANZAC in November 1914. He identified his Boer War experience as one of the reasons for his selection:

I have always felt that my close contact with these excellent fellows laid the foundation of my very happy relations with the Australian and New Zealand troops throughout the War of 1914-18. Indeed, it was because he realised how well we had got on together in South Africa that Lord Kitchener selected me to command the combined Australian and New Zealand Army Corps in 1914.<sup>41</sup>

Birdwood, an Indian army officer, had served as Kitchener's military secretary during the Boer War. It is likely that he owed his appointment as much to his 'happy relations' with the Australians as to Kitchener himself. Following the Boer War, Birdwood held the position of Assistant Adjutant-General, India in 1904 and QMG, India in 1912. However, as an Indian army officer, he sat outside the British military establishment. There was still a snobbish prejudice against Indian army officers.<sup>42</sup> It is possible that this may have aided him in his command of the Australian forces. He, like them, sat outside the traditional establishment.

Though he held the rank of lieutenant-general, Birdwood was a tactical commander. He did not advise the Australian government on strategy, nor did he command a campaign. Birdwood's corps undertook tactical missions directed by higher command. His skills were

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<sup>40</sup> P. Sadler, *The Paladin: A Life of Major-General Sir John Gellibrand* (Melbourne, VIC: Oxford University Press, 2000), p. 56.

<sup>41</sup> W. R. Birdwood, *Khaki and Gown: An Autobiography* (London: Ward, Lock and Co., 1941), p. 124.

<sup>42</sup> Morton-Jack, *Indian Army*, pp. 116, 265; L. H. Gann and P. Duignan, *The Rulers of British Africa 1870-1914* (Stanford, CA: Stanford University Press, 1978), p. 98.

centred on man management. More of a leader than a commander, Birdwood relied to a great extent on his long-standing Australian chief of staff, Brudenell White, for the day to day running of the AIF. Owing to Brudenell White's proficiency, Birdwood was prone to 'always "buzzing around", looking people up, perambulating all over the place, barely ever at headquarters and not *really* exercising command at all'.<sup>43</sup> However, William Hughes, the Australian Prime Minister, deemed Birdwood to be 'a man in every way competent, who knows the Australian soldier and who is respected and loved and admired by him'.<sup>44</sup> Birdwood had a keen eye for talent and was quick to identify poor performance, but he was not a martinet. Monash, for example, was suitably impressed by Birdwood's 'wonderful grasp of the whole business of soldiering'. He went on to note how:

I have been around with him for hours and heard him talking to privates, buglers, drivers, gunners, colonels, signallers and generals and every time he has left the man with a better knowledge of his business than he had before. He appeals to me most thoroughly, and I think the Australasian Army Corps is most fortunate that Kitchener chose Birdwood as their Corps Commander.<sup>45</sup>

Brudenell White, who would have a long association with Birdwood both during and after the war, recalled Birdwood as a 'young (49) vigorous fellow with charming quiet manners' with a 'beautiful clear and honest nature – without any warps'.<sup>46</sup> In Birdwood, the Australians had a much-needed leader - one with people skills and proven experience in senior administrative positions.

The AIF benefitted from Birdwood's appointment, particularly in the early days of his tenure. As Monash recalled, 'he possesses the complete confidence of the whole force... He has

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<sup>43</sup> P. Pedersen, *Monash as Military Commander* (Carlton, VIC: Melbourne University Press, 1985), p. 298. Original emphasis.

<sup>44</sup> LHCMA, Robertson Papers, 8/4, Hughes to Robertson, 12 April 1916.

<sup>45</sup> AWM, Monash Papers, 3DRL/2316 1/1, Monash to wife, 13 February 1915.

<sup>46</sup> NLA, White Papers, MSS 5172 2.1/11, White to wife, n.d (c. 24 December 1914); J. Bentley, 'Champion of Anzac: General Sir Brudenell White, the First Australian Imperial Force and the Emergence of the Australian Military Culture 1914-18', Unpublished PhD Thesis, University of Wollongong, 2003, p. 182.

kept the force free from intrigue, contented and immune from outside interference'.<sup>47</sup> Birdwood's appointment went some way to mitigating the factionalism between permanent and militia officers. As an Indian army officer, he was not subject to prejudices that would influence whether he believed a militia or regular officer to be most suitable for command. He was also always prepared to try an inferior Australian officer rather than a British officer who he knew to be more capable.<sup>48</sup> His candid views on the suitability of AIF senior officers were an important aspect of his correspondence with Pearce, the Australian Defence Minister, and Ronald Munro Ferguson, the Australian Governor-General. He kept both men abreast of his views on particular individuals. Commenting on brigade appointments, for example, Birdwood wrote that commands had been given to 'Elliott, Glasgow, Irving and Glasfurd. The first named I have only put in temporarily so far, as I have heard conflicting reports as to his stability'.<sup>49</sup> Later in the war, Birdwood commented on the relative merits of Brudenell White and Chauvel, questioning whether the latter's success in Egypt 'is due to him' as he lacked 'great character or ability'.<sup>50</sup>

Birdwood's eye for talent, his reputation, and leadership qualities offered legitimacy and unity to an organisation that was initially ill-equipped and poorly trained for war. More importantly though, his appointment streamlined the system of command for Australian soldiers fighting overseas. He was, after all, *de facto* head of the AIF in all theatres. At the War Office, Birdwood's continuing control of the AIF was seen as self-serving, leading to growing ill-feeling between Birdwood and a number of senior generals.<sup>51</sup> Though appreciating his generalship, Pollen, Hamilton's military secretary, thought Birdwood like a cat:

[He] always wants stroking. A little douche of cold water frightens him away. Somehow these men who pin their hopes to the favour of various big men, are

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<sup>47</sup> BL, Birdwood Papers, MSS Eur D686/77, Monash to Pearce, 21 June 1918.

<sup>48</sup> G. Sheffield, 'The Australians at Pozières: Command and Control on the Somme, 1916', in French and Holden Reid (eds.), *British General Staff*, p. 96.

<sup>49</sup> AWM, Pearce Papers, 3DRL/2222 3/1, Birdwood to Pearce, 20 February 1916.

<sup>50</sup> AWM, Pearce Papers, 3DRL/2222 2/11, Birdwood to Munro Ferguson, 9 May 1917.

<sup>51</sup> J. D. Millar, 'A Study in the Limitation of Command: General Sir William Birdwood and the AIF, 1914-1918', Unpublished PhD Thesis, University of New South Wales, 1993, p. 3.

more sensitive to a little wholesome criticism than they need to be.<sup>52</sup>

In a letter to Robertson, Murray noted that Birdwood had ‘a distinct eye to his future... He wants to remain at the end of the war everything to Australia...’<sup>53</sup> Allenby deemed Birdwood’s control, particularly over AIF troops in Palestine, as ‘an absurdity’. Robertson agreed with Allenby’s assessment, noting that Birdwood had ‘a way of communicating with the Government of Australia and getting them to put forward suggestions made by him’.<sup>54</sup> Birdwood was aware of the situation, noting in a letter to Munro Ferguson that ‘there is a great deal of jealousy against me at the War Office... also, they never look favourably upon the Indian Army officer’.<sup>55</sup> Colonel Andrew Skeen, Birdwood’s former GSO1 and a pre-war instructor at Quetta, warned Brudenell White in early 1916 of ‘the jealousy against our little General... he is as unsuspecting of meanness as a child – it’s up to you to watch – and if you let them catch our little General in some trap, I’ll never forgive you’.<sup>56</sup>

Birdwood’s push to retain command of the AIF beyond 1916 – and the Australian government’s ultimate support for this decision - blocked promotion opportunities for Australian officers.<sup>57</sup> In the Canadian Corps, Byng had made way for a Canadian officer, Lieutenant-General Sir Arthur Currie, in April 1917. In Palestine, Chauvel had been appointed to corps command in April 1917, yet Monash did not take over the Australian Corps until May 1918 with Birdwood remaining head of the AIF until the Armistice. Although much admired by the men he commanded, Birdwood’s retention of command encroached on the culture and identity of the AIF. Following Monash’s appointment to command the Australian Corps, Chauvel, although ‘very glad’ that Birdwood retained command of the AIF, railed against the Australian government’s inconsistency: ‘they insist on having Australians commanded in the

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<sup>52</sup> LHCMA, Hamilton Papers, 7/7/37, Pollen to Hamilton, 19 April 1916.

<sup>53</sup> IWM, Murray Papers, 79/48/3, Murray to Robertson, 23 March 1916.

<sup>54</sup> TNA, WO 106/718, Correspondence between General Staff, War Office and Egypt, Allenby to Robertson, 19 July 1917; LHCMA, Robertson Papers, 8/1/67, Robertson to Allenby, 1 August 1917.

<sup>55</sup> AWM, Birdwood Papers, 3DRL/3376 33, Birdwood to Munro Ferguson, 14 February 1917.

<sup>56</sup> NLA, White Papers, MSS 5172 2.3/38, Skeen to White, 30 March 1916.

<sup>57</sup> Connor, *Anzac and Empire*, p. 123.

field by Australian officers, but allow the administration to be run by a British officer!'<sup>58</sup>

Command problems also manifested themselves at divisional level. As John Bentley argues, appointments to divisional command, particularly after the expansion of the AIF in early 1916, were complex affairs.<sup>59</sup> The AIF was still reliant on a handful of professional Australian officers supplemented by Imperial officers. For some Australian officers, such as Harold 'Pompey' Elliott, this reliance on Imperial officers was a contentious issue. Commenting on Birdwood's command, Elliott wrote that 'he... has not handled Australians as long as I have, and has not studied them as I have done'.<sup>60</sup> However, as Birdwood recalled in 1917, 'Imperial officers have been employed with the AIF only when Australian officers were not available', and that the 'dearth of qualified Australian officers was due in the first instance to our being such a young force and naturally requiring experience'.<sup>61</sup> The appointment of Imperial officers underscored the tension between Australia's burgeoning national identity and the need for military efficiency. This was a line that Godley had to navigate carefully with his decision to appoint an Imperial officer as his divisional medical officer. Godley believed that it was 'best to have an Imperial Officer to act temporarily, especially as our medical arrangements are naturally rather amateurish'.<sup>62</sup> He felt that it would be useful to have a British regular officer to 'start them in the right way', but would be more than happy to appoint an Australian or New Zealand officer providing they had 'sufficient military knowledge and experience to carry on the job properly'.<sup>63</sup> Although it was important for Australian commanders to learn on the job, it was just as vital that the AIF had experienced individuals to guide it during its early years.

The high officer casualties sustained at Gallipoli, coupled with the AIF's expansion, led to a dilution of experience. Though the reliance on Imperial officers lessened, there was still widespread inexperience at the higher levels of command. By March 1916, two Imperial

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<sup>58</sup> AWM, Chauvel Papers, PR00535 4/13, Chauvel to wife, 11 July 1918.

<sup>59</sup> Bentley, 'Champion of Anzac', p. 268.

<sup>60</sup> AWM, Papers of Brigadier H. E. Elliott, 2DRL/0513 3/4, Elliott to wife, 14 April 1916.

<sup>61</sup> BL, Birdwood Papers, MSS Eur D686/57, Birdwood to Defence Department, n.d.

<sup>62</sup> AWM, Godley Papers, 3DRL/2233, Godley to Pearce, 16 April 1915.

<sup>63</sup> *Ibid.*



officers (Harold Walker and Herbert Cox) commanded the 1st and 4th Australian Divisions, whilst two Australians (Legge and McCay) commanded the 2nd and 5th Australian Divisions respectively. In addition, Chauvel had been appointed to command the Anzac Mounted Division. There was now an Australian majority at divisional command level, but this did little to quell the grumblings. The appointment of Cox to the command of the 4th Australian Division was particularly contentious and brought to the fore concerns around the favouring of Imperial over Australian officers. Pearce voiced his 'general feeling of disappointment' over Cox's appointment, particularly given the experience of 'Chauvel, Monash, White and Holmes'.<sup>64</sup> However, Birdwood defended his decision, arguing how 'very much harder it must be to select Australian officers, when comparatively speaking few have had consistent and regular military training throughout their lives, simply because the number of your permanent officers in the higher ranks is naturally small'.<sup>65</sup> Although desert training and operations at Gallipoli had given Australian officers experience of handling larger bodies of men, this did not instantly fit them for higher command. Monash, for example, had served as a brigade commander throughout the Gallipoli campaign, but his inexperience at that level was obvious, particularly during the August offensive.<sup>66</sup> Pearce acceded to Birdwood's opinion, suggesting confidence in the latter's judgment, but insisted on being consulted on all AIF appointments above the rank of colonel.<sup>67</sup> However, with the command and staffing of the newly formed 3rd Australian Division, Pearce was much firmer, and attempted to prevent the appointment of any British officers to that division. Birdwood was astute enough to recommend Monash for command of the division, along with Harold Grimwade, another Australian, as his artillery commander, commenting that 'the experience they are gaining with troops in France will be of the very greatest value'.<sup>68</sup>

The raising and training of the 3rd Australian Division marked a turning point in the

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<sup>64</sup> AWM, Pearce Papers, 3DRL/2222 3/1, Pearce to Birdwood, 4 February 1916.

<sup>65</sup> AWM, Pearce Papers, 3DRL/2222 3/2, Birdwood to Pearce, 24 March 1916.

<sup>66</sup> Grey, *A Military History of Australia*, p. 94; R. Crawley, *Climax at Gallipoli* (Norman, OK: Oklahoma University Press, 2014), p. 205.

<sup>67</sup> Connor, *Anzac and Empire*, p. 65.

<sup>68</sup> AWM, Pearce Papers, 3DRL/2222 3/2, Birdwood to Pearce, 3 July 1917.

AIF's integration into the British army. Its reliance on Imperial officers was markedly reduced, with Australian officers commanding all of its combat formations. Its three brigade commanders, for example, were pre-war militia officers who had seen service at Gallipoli. However, there was still a guiding hand in the guise of two regular Imperial officers: Lieutenant-Colonels George Jackson as GSO1, and Mynors Farmar as Assistant Adjutant Quartermaster-General [AAQMG]. Both had experience of serving with Australian formations: Jackson had served as GSO1 to the 2nd Australian Division, while Farmar – a pre-war graduate of the LSE's administration course - had worked with Australian troops during his time as BM to the 86th Brigade. Sellheim and Brudenell White, both pre-war associates of Farmar, had recommended him for the position of AAQMG, with Birdwood agreeing to this appointment 'after inquiries, which resulted in information concerning work in Gallipoli'.<sup>69</sup> These two seasoned officers remained with the division for over a year.<sup>70</sup> Upon leaving the 3rd Australian Division, their positions were filled by Australian officers: Robert Jackson was appointed AAQMG in September 1917, while Carl Jess took over as GSO1 in January 1918.

The departure of both Jackson and Farmar was political in nature, marking the beginnings of 'Australianisation'. From as early as May 1917, the Australian government was agitating for the replacement of 'Imperial officers holding high AIF appointments'.<sup>71</sup> The policy was finally agreed in July 1917, with a telegram from Munro Ferguson to Walter Long, Secretary of State for the Colonies, requesting the 'employment of Australian officers on the staffs'.<sup>72</sup> Birdwood received a letter five days later demanding that:

... under your command Australians be constituted in purely Australian formations as far as possible and with Australian officers for commands and staffs. I have ascertained... the names of over 90 officers... employed under you who are not Australian, and while appreciating thoroughly the assistance given by the British army, I consider that units under your command should

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<sup>69</sup> Swinfen Eady Collection, Papers of Colonel H. M. Farmar, Ts memoir, n.d., pp. 52-53; Farmar to wife, 30 December 1916.

<sup>70</sup> Farmar was appointed AAQMG to 35th Division in September 1917. Jackson remained as GSO1 until his promotion to command the 87th Brigade in January 1918.

<sup>71</sup> BL, Birdwood Papers, MSS Eur D686/57, Trumble to Commandant AIF London, 18 May 1917.

<sup>72</sup> *Ibid.*, Munro Ferguson to Long, 30 July 1917.

now be able to provide Australian officers for these positions. I shall be glad if you will prepare a list of Imperial officers whom you can now replace...<sup>73</sup>

One of these ninety officers was Farmar. Writing to his wife, he confirmed that ‘the politicians in Australia are clamouring for the displacement of all British officers with Australian troops, saying that they stand in the way for promotion for Australians. They look upon a Staff Officer as a sort of carpet knight, an ornamental position which their political friends will ably occupy’.<sup>74</sup> Monash, who had developed a close friendship with Farmar, was ‘enraged at the thought’, while Farmar was ‘heart broken to leave the division’.<sup>75</sup> Along with his personal attachment to the formation, he remained concerned over the lingering problems of experience and factionalism with the AIF: ‘There are so very few Australians who have the military education or experience: and also, sad to say, few who are above chicanery for advancement or advancement for their friends’.<sup>76</sup>

By the war’s end, the AIF was primarily commanded and staffed by Australians as a result of ‘Australianisation’. However, they had learned their trade with the advice and guidance of Imperial commanders and staff officers. In May 1918, Monash was finally appointed commander of the Australian Corps, with Blamey as his chief of staff. At divisional level, of the seven formations, four were commanded by Australians, two by Imperial officers, and one by a New Zealander; while at brigade level, pre-war Australian militia officers dominated both the infantry and mounted commands.<sup>77</sup> Although the use of Imperial commanders was not universally popular amongst Australian troops or with the Australian government, there were obvious instances where a successful working relationship developed between the two groups; Monash and Farmar’s relationship provides a good example of this, while Charles Rosenthal called in on his former divisional commander, Cox, when the latter was appointed to the India

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<sup>73</sup> *Ibid.*, Defence Department to Birdwood, 4 August 1917.

<sup>74</sup> Swinfen Eady Collection, Farmar Papers, Farmar to wife, 13 August 1917.

<sup>75</sup> *Ibid.*, Ts memoir, n.d., p. 55.

<sup>76</sup> *Ibid.*, Farmar to wife, 13 August 1917.

<sup>77</sup> The four Australian divisional commanders were Glasgow, Rosenthal, Gellibrand, and Hobbs.

Office in early 1917.<sup>78</sup> This relationship was not limited to the AIF either. Canadian and Imperial officers found relations to be both cordial and professional. They understood the seriousness of the business in which they were engaged and simply got on with it.<sup>79</sup> Although the use of Imperial officers caused friction, particularly in the political arena, it remained a key learning mechanism for the AIF's integration.

In addition to command appointments, the army also used mentoring and attachments to great effect when integrating new formations. As discussed previously, this was not exclusive to the First World War. The War Office had seconded regular officers to Australia before the war, not only to help train and reorganise formations, but also to ensure that the most up to date methods were disseminated. These same principles determined the use of mentoring and attachments during the First World War. As well as leavening the AIF's command structure with much needed experience, Imperial officers also became instructors, trainers, and staff officers, thus providing the AIF with a firm grounding in the elementary aspects of soldiering.

According to Bean, the 'Australian and New Zealand officers had to rely almost entirely on themselves'.<sup>80</sup> This was untrue. Through its higher commanders – men such as Birdwood and Godley – the AIF could access a number of experts who helped streamline the integration process. For example, Godley, during initial desert training, expressed concern over the 'weak and inexperienced' staff and poor musketry training in Chauvel's Light Horse Brigade. In order to alleviate this inadequacy, Godley secured an Indian army officer to act as a musketry instructor; he also did the same for Monash's 4th Australian Brigade.<sup>81</sup>

These personal appointments were supplemented by the wider Imperial 'mentoring' system. Building on the greater interoperability between Empire forces, the War Office attached a number of qualified staff officers and commanders – 214 in total - to the Canadian Corps to

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<sup>78</sup> Mitchell Library, State Library of New South Wales [ML], Papers of General Sir C. Rosenthal, MLMSS 2739, Diary, 17 June 1917.

<sup>79</sup> D. Delaney, 'Mentoring the Canadian Corps: Imperial Officers and the Canadian Expeditionary Force, 1914–1918', *Journal of Military History* 77 (2013), pp. 951-952.

<sup>80</sup> Bean, *Official History*, I, p. 139.

<sup>81</sup> AWM, Godley Papers, 3DRL/2233, Godley to Pearce, 30 March 1915.

‘command certain components and complete the connections of the staff nervous system’. This scheme enabled the Canadians to develop their own officers to eventually take over those functions.<sup>82</sup> This development was aided by the institution of an army-wide staff learner scheme, forming part of the army’s wartime process for staff training in response to the closure of Camberley and Quetta. Staff training went through a number of incarnations from the ad hoc, formation-led instruction courses in 1915, to the formal junior and senior staff schools at Hesdin and Cambridge University from late 1916.<sup>83</sup>

The CEF and the AIF benefitted from the personal interactions of the ‘learner’ system and the structured learning environment of the staff schools. Walter MacCallum was just one of many Australians who went through the junior staff school system. His wartime career demonstrates how talent was identified and selected for training and advancement to higher staff positions. Commissioned in the AIF on 5 May 1915, MacCallum saw action at Gallipoli in the 20th Battalion. Identified as future staff material by his battalion commander, MacCallum was attached as an aide-de-camp to the 2nd Australian Division in November 1915 before being appointed GSO3 to that same division in October 1916. As a result of his ‘energy and initiative’ during the advance to Bapaume in February 1917, he received the Military Cross. Deemed suitable for further training, MacCallum went to the junior staff school in July 1917 where the commandant remarked on his ‘force of character and distinct ability’. In September 1917, he became BM to the 5th Australian Brigade. By November 1918, he was a GSO2 in the 2nd Australian Division having been awarded the Distinguished Service Order and Mentioned in Despatches three times.<sup>84</sup>

Although the staff courses encouraged professionalism, they were only able to train a small number of future officers. The AIF cohort for the course in December 1917, for example,

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<sup>82</sup> Delaney, ‘Mentoring the Canadian Corps’, p. 953.

<sup>83</sup> Fox-Godden, ‘Hopeless Inefficiency’, pp. 143-147.

<sup>84</sup> NAA, B883NX439, Service Record of Brigadier W. P. MacCallum.

totaled just one officer for the senior course and five for the junior course.<sup>85</sup> It was, therefore, vital to have an informal learning system that ran alongside these formal courses.<sup>86</sup> For the army, this ‘on the job’ learning was just as important as the schools themselves. Even with the move to a more professional staff training regime in 1918, the importance of attachment and mentoring was still evident. The revised regime highlighted the need for ‘a reserve of qualified staff officers for appointment as Brigade Majors’. This reserve was to be met through the attachment of GSO3s and Staff Captains ‘as understudies to the Brigade Major for a period of one month’.<sup>87</sup> The strength of the army’s ‘mentoring’ system can be partly attributed to the dynamic relationship between the mentor and the mentee. It was a relationship that not only allowed for the transfer of job-related knowledge, but also equipped the mentee with the tools to navigate the politics of a complex institution.<sup>88</sup> The fact that the army moved towards a formalised ‘mentoring’ system showed that, as an organisation, it recognised the benefits of heuristic learning as a way of transferring knowledge between professionals and novices. In the case of the AIF, this is evident in the relationship between Farmar and Robert Jackson in the 3rd Australian Division. Jackson, as Deputy AAQMG, understudied Farmar for a year before taking over the latter’s position in September 1917. For the most part, this system was successful. As one Canadian staff officer recalled, there was a ‘wonderful group of staff officers around us, the pick of the British army. They were absolutely superb... and they taught us very much’.<sup>89</sup>

Despite the ‘Australianisation’ policy, British staff officers were still used to mentor Australian commanders late on in the war. This was most obvious in Chauvel’s case. Allenby had appointed Chauvel to command the Desert Mounted Corps much to the disappointment of

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<sup>85</sup> AWM, AWM25 937/29, Training of Staff Officers. Senior and Junior Staff Schools, 1917-18, Memo, AIF HQ to 3rd Australian Division, 7 December 1917.

<sup>86</sup> TNA, WO 256/14, Haig Diaries, Report of Army Commanders’ Conference at Rollencourt, 9 December 1916, p. 2; AWM, AWM25 899/1, Instructions with reference to the training of Staff Officers, MGGS Second Army to GOC II ANZAC, 30 July 1917.

<sup>87</sup> IWM, Dawnay Papers, 69/21/2, Memo, Staff Training (O.B./1329), 6 July 1918.

<sup>88</sup> L. Kahle-Piasecki, ‘Making a Mentoring Relationship Work: What is Required for Organizational Success’, *Journal of Applied Business and Economics* 12 (1) (2011), p. 46.

<sup>89</sup> P. Brennan, ‘Julian Byng and Leadership in the Canadian Corps’, in G. Hayes, A. Iarocci, and M. Bechthold (eds.), *Vimy Ridge: A Canadian Reassessment* (Waterloo, ON: Wilfrid Laurier University Press, 2007), p. 98.

Chetwode.<sup>90</sup> As Stephen Badsey notes, placing Chauvel - an Australian - in command of a mixed corps of eleven horsed brigades, five of them yeomanry, four Australian, one New Zealander, and one Indian, was unique in the war.<sup>91</sup> However, both Allenby and Lynden-Bell had reservations about Chauvel's ability. Lynden-Bell believed that Chauvel would 'do all right in command', but that he needed 'a first-class cavalry soldier as BGGs'.<sup>92</sup> Allenby concurred with Lynden-Bell's assessment, suggesting that Chauvel's 'higher military training' was the weak point and that, although he had the capacity for command, he would 'be improved by having a trained and experienced cavalryman as BGGs'.<sup>93</sup> Murray had already noted Chauvel's weaknesses in the 'higher strategical and tactical handling of cavalry' in late 1916.<sup>94</sup> Chauvel himself was conscious of his own shortcomings, particularly where his military education was concerned. Unburdening himself to his wife, he confessed to:

... walking on pretty thin ice with all these people, and have been very lucky to have been able to hold my own... Sometimes, at the conferences at GHQ, when I look around the room and realise that I am absolutely the only one who is not in the British regular army and cannot put *psc* after my name, I do get a bit of a funk on lest I should be caught out in a want of knowledge on some technical point.<sup>95</sup>

Chauvel's concerns mirrored Farmar's observations on the military education of AIF senior commanders, suggesting that 'Australianisation' was not the most suitable policy.

Prior to his appointment to the Desert Mounted Corps, Chauvel's two chief staff officers were British regulars: Vivian Fergusson, a Royal Artillery officer, and Edward Trew, a Royal Marine. Allenby deemed this inappropriate for the staffing of the Desert Mounted Corps, insisting that Chauvel should have 'the most up to date cavalry staff officer' as his BGGs.<sup>96</sup> As a result, Howard-Vyse was brought over from France to replace Fergusson. Both Chauvel and

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<sup>90</sup> NLA, White Papers, MSS 5172 2.3/40, Chauvel to White, 15 August 1917.

<sup>91</sup> Badsey, *Doctrine and Reform*, p. 286.

<sup>92</sup> TNA, WO 106/718, Correspondence between General Staff, War Office and Egypt, Lynden-Bell to Maurice, 18 July 1917.

<sup>93</sup> *Ibid.*, Allenby to Robertson, 19 July 1917.

<sup>94</sup> LHCMA, Godley Papers, 3/193, Murray to Godley, 14 December 1916.

<sup>95</sup> AWM, Chauvel Papers, PR00535 3/2, Chauvel to wife, 14 February 1918.

<sup>96</sup> AWM, Chauvel Papers, PR00535 4/10, Chauvel to wife, 7 August 1917.

Chetwode were disappointed at this decision.<sup>97</sup> Chetwode went so far as to write to both Lynden-Bell and the Assistant Military Secretary to voice his displeasure. For Chetwode, the ‘case of Colonel Fergusson is to my mind such a flagrant injustice that at the risk of offending Sir Edmund [Allenby] I must ask you to put up to him my final appeal. It never entered my head for a moment that when I advised a Cavalry BGGS for the Cavalry Corps that Fergusson would be turned down’.<sup>98</sup>

Although new to the Palestine theatre, Howard-Vyse’s appointment was designed to support Chauvel as he moved from command of the Desert Column to a corps. As a *psc* officer with former service on both Allenby and Chetwode’s staffs in France, Howard-Vyse was well qualified for the job. Cyril Falls recalled how Chauvel ‘might need some coaching in the early days of his big command’, but ‘British commanders and staffs were inclined to be too patronising in this respect, to the annoyance of Australians and Canadians’.<sup>99</sup> While this may have been the case at first, the relationship between Chauvel and Howard-Vyse was ultimately productive. Chauvel soon believed him to be ‘turning out very well indeed and is an extremely nice fellow’.<sup>100</sup> There was regret on Chauvel’s part at Howard-Vyse’s eventual departure to command the 10th Cavalry Brigade in July 1918. Incidentally, Howard-Vyse’s replacement as BGGS was another Imperial officer – Brigadier-General Charles Godwin. Godwin was also *psc* with a wealth of experience in staff appointments. As his ‘most dashing Brigadier’, and someone ‘whom I like very much’, Chauvel welcomed Godwin’s appointment.<sup>101</sup>

Throughout his service in the First World War, Chauvel’s chief staff officers were Imperial officers. This is unsurprising given his command of a multi-national corps. His correspondence – often candid in nature – does not betray any feelings of wounded national pride at not having an Australian chief of staff. In fact, Chauvel developed close relationships

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<sup>97</sup> *Ibid.*, Chauvel to wife, 29 August 1917.

<sup>98</sup> IWM, Fergusson Papers, PP/MCR/111, Chetwode to Assistant Military Secretary, 6 August 1917.

<sup>99</sup> C. Falls, *Armageddon 1918: The Final Palestine Campaign of World War I* (Philadelphia, PA: University of Pennsylvania Press, 1964), p. 173.

<sup>100</sup> AWM, Chauvel Papers, PR00535 4/11, Chauvel to wife, 26 October 1917.

<sup>101</sup> AWM, Chauvel Papers, PR00535 4/13, Chauvel to wife, 15 July 1918.



with his staff and other senior Imperial officers, notably Lynden-Bell: ‘the only real friend I had left at GHQ’.<sup>102</sup> Arguably, Chauvel’s background as a permanent officer, and his experience as Australian representative to the Imperial General Staff, served him well in his dealings with his Imperial colleagues. However, the AIF in Palestine, much like the EEF, was not afforded the same attention nor priority as its counterpart in France. As part of his mandate as commander of the AIF, Birdwood exchanged and transferred personnel within or between units of the force.<sup>103</sup> In a letter to Pearce, Birdwood noted that this authority ‘enables me to call upon light horse officers, if necessary, to fill staff appointments with the rest of the force... I have just done this in getting an officer over from Egypt for a vacancy caused by the formation of the staff of the 3rd Division’.<sup>104</sup> As the larger force in the principal theatre, the AIF in France was able to call on talented officers in Egypt, thus limiting Chauvel’s opportunity to secure a chief of staff such as Brudenell White, Jess, or Blamey.

Like command appointments, attachments and mentoring provided the AIF with handrails whilst it learned its trade. The use of heuristic learning methods was widespread throughout the army. Although Imperial officers were seconded to Australia pre-war, the decision to formalise and expand these methods was a response to the increasing civilian make-up of the army, particularly from 1915 onwards. However, for these approaches to work, it was important that the Imperial officers – essentially ‘outsiders’ to the AIF’s culture and ethos – were temperamentally suited to their roles as instructors or mentors. As Birdwood noted in June 1916, Imperial officers must ‘possess very much the velvet glove’. If handled right, the men ‘will do anything to fall in with one’s wishes’, but if handled wrong, they ‘will do nothing’.<sup>105</sup> Although they gave the AIF access to officers who had ‘complete command of the mechanisms and staff procedures’ of the British army, attachments were not always welcome. Writing to Munro Ferguson in May 1917, Long hoped that ‘it is not the wish of your Government that

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<sup>102</sup> AWM, Chauvel Papers, PR00535 4/11, Chauvel to wife, 9 September 1917.

<sup>103</sup> AWM, Pearce Papers, 3DRL/2222 3/2, Memorandum on Birdwood’s powers as GOC AIF, 3 July 1916.

<sup>104</sup> AWM, Pearce Papers, 3DRL/2222 3/3, Birdwood to Pearce, 14 July 1916.

<sup>105</sup> BL, Birdwood Papers, MSS Eur D686/77, Birdwood to Macready, 22 June 1916.

none but Australian officers should serve on staffs of Australian formations as they regard the staff generally as an Imperial organisation in which officers of Dominion and British Forces shall be considered interchangeable'.<sup>106</sup> The Australian government declined this interchange. One of the reasons given for the government's decision was 'the different systems of discipline, training, and administration governing the British army and the AIF'.<sup>107</sup> There were indeed differences in discipline and administration between the two forces. However, where training was concerned, this assertion was patently untrue.

As we have seen, the importance of command appointments and mentoring cannot be understated. However, the army also used 'people-to-documents' methods of learning, such as publications, which, in turn, informed training school syllabi. Although the Australian forces had access to British publications before the war, it is debatable how familiar the Australian officer would have been with these documents. As Bridges dryly commented, *FSR* was about as useful to most Australian militia officers as 'the cuneiform inscription on a Babylonian brick'.<sup>108</sup> This correlates with Bean's view that Australians were not 'a material to be treated according to pure British drill-book methods'.<sup>109</sup> However, for the AIF to integrate and become a working part of the army, they needed to familiarise themselves with these publications.

According to Bean, initial training 'was simply the old British Army training. Little advice came from the Western Front'.<sup>110</sup> This was far from the actual case. One of Birdwood's first actions as field commander was to request 'copies of any instructional pamphlets you [the War Office] may have on points of training... on experience gained up to date in the war'.<sup>111</sup> He subsequently followed this up with an urgent request for:

... *Notes from the Front* vols one and two 1500 copies of each. He [Birdwood] considers they would be invaluable and wants sufficient for issue to each officer

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<sup>106</sup> BL, Birdwood Papers, MSS Eur D686/57, Long to Munro Ferguson, 11 August 1917.

<sup>107</sup> *Ibid.*, Trumble to Commandant AIF London, 18 May 1917.

<sup>108</sup> ADFA Library [ADFAL], Papers of Major-General W. T. Bridges, MSS G82, 'Report on the Conference of General Staff Officers', 17-20 January 1910, p. 53.

<sup>109</sup> Bean, *Official History*, I, pp. 126-127.

<sup>110</sup> *Ibid.*, p. 139.

<sup>111</sup> AWM, Birdwood Papers, 3DRL/3376 11/12, Telegram, Delhi to War Office, 2 December 1914.

of his command. If more are available they could with advantage be distributed to NCOs also. He would also like three hundred copies each of Lecture by [Brigadier-General R. A. K.] Montgomery, *Notes on Artillery in the Present War*, and *Notes on the Use of Plane Tables with Artillery*, for use of artillery officers and higher commanders.<sup>112</sup>

On 2 April 1915, the 4th Australian Brigade received *Notes on Artillery in the Present War*, suggesting that the men of the AIF were made aware of the latest developments and were most likely trained in them too.<sup>113</sup> This ‘experience gained in France’, along with the fundamentals of warfare, were also disseminated in the form of lectures. Skeen, for example, gave lectures on the ‘laws of war’ to Australian brigades, while Monash recalled a lecture by an Imperial staff officer on grenade training that referred to rifle grenade tactics then used in France.<sup>114</sup>

Along with recent publications, Birdwood also procured specimen maps from France, copies of the latest BEF Standing Orders for corps, division, and brigade, as well as *FSR* and all manner of War Manuals.<sup>115</sup> The appointment of Imperial officers proved particularly useful here. They already had a working knowledge of these central publications, providing strong foundations upon which the AIF could base its future training and development. One of Godley’s divisional conferences in January 1915 drew attention to the fact that ‘officers on the continent do not read *Field Service Regulations Part II* sufficiently’. If the men were short of rations or equipment then it would be ‘the fault of senior officers in not having read their *Field Service Regulations Pt II* which tell you how to obtain everything, and deal with any administrative difficulty’.<sup>116</sup> The same conference also highlighted the need for every officer and senior NCO to read the ‘various Notes and Pamphlets from the Front’. It is unsurprising that, in a letter to his wife, Monash admitted that ‘what is keeping me so busy is in getting to

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<sup>112</sup> *Ibid.*, Telegram, Delhi to War Office, 24 December 1914.

<sup>113</sup> AWM, Monash Papers, 3DRL/2316 3/7, ‘Notes on Artillery in the Present War’.

<sup>114</sup> AWM, AWM4/23/1, 1st Brigade AIF War Diary, 11 January 1915; AWM, Monash Papers, 3DRL/2316 3/38, ‘Notes from a lecture on grenade training given by a Lt-Col J. Duncan’, 16 March 1916

<sup>115</sup> AWM, AWM4 1/28/1, ANZ Army Corps Administrative HQ War Diary, Telegram, GOC ANZAC to WO, 26 December 1914; AWM, Birdwood Papers, 3DRL/3376 11/12, Telegram, GOC Egypt to WO, 1 January 1915.

<sup>116</sup> AWM, Monash Papers, 3DRL/2316 3/6, ‘Notes for GOCs Conference’, 23 January 1915.

learn the ropes'.<sup>117</sup>

Although the extent to which these publications were read and assimilated is unknown, it is clear that the army expected the AIF to base its training around these manuals to promote greater uniformity. The Australians took these publications seriously. In February 1916, the training of machine gun companies in the MEF was 'to be carried out on a common system in order to standardise knowledge', with reference to the latest publications from France.<sup>118</sup> Divisional conferences in 1916 often referred to existing publications, such as *SS109* and numerous translated publications from the French army.<sup>119</sup> Furthermore, Brudenell White's personal papers contain a wealth of official SS pamphlets alongside Army and formation specific publications, including the Fifth Army's 'Memorandum on Trench to Trench Attack by a Battalion Commander' and the 1st Australian Division's 'Artillery in Trench Warfare'.<sup>120</sup> A memo in Monash's papers warned of the dangers of 'reading *FSR I* unintelligently' and included a list of references from *FSR* and *Infantry Training* relating to infantry in open warfare. More importantly, the memo highlighted the need to 'read and try to apply' the principles within these manuals and suggested that, if the meaning was obscure, officers should 'ask for instances to be given by application of theory'.<sup>121</sup> Bentley argues that cultural, political, and institutional separation from Britain provided dominion forces with a degree of flexibility not afforded to Imperial forces. He suggests that lack of philosophical rigidity provided the AIF with a high level of learning flexibility, allowing lessons to be analysed and very quickly disseminated and applied.<sup>122</sup> However, the very nature of the British army's publications, along with its pragmatic attitude towards learning, encouraged a certain degree of flexibility in the tactical implementation of these publications. This pragmatism was by no means unique to the

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<sup>117</sup> AWM, Monash Papers, 3DRL/2316 1/1, Monash to wife, 10 February 1915.

<sup>118</sup> AWM, AWM25 877/3, Training of Machine Gun Companies, Feb-April 1916, Memo, CGS MEF to GOC I ANZAC, 24 February 1916.

<sup>119</sup> AWM, Monash Papers, 3DRL/2316 3/41, Personal Notes on 2nd Division Conference, 23 June 1916.

<sup>120</sup> AWM, White Papers, 3DRL/1400 4/7, *passim*.

<sup>121</sup> AWM, Monash Papers, 3DRL/2316 3/43, 'Notes on Conditions of Trench and Open Warfare', 18 August 1916.

<sup>122</sup> Bentley, 'Champion of Anzac', p. 300.

dominion forces. In the EEF, for example, variations on implementation were actively collated and placed on record. The commandant of the senior officers' school at Heliopolis was instructed to 'inform General Headquarters on any points... commonly practiced in units which differ from official manuals or pamphlets'.<sup>123</sup> As no two tactical situations were likely to be the same, EEF GHQ argued that it was 'better not to emphasise unduly one particular case' as it might 'increase the difficulties officers have in applying principles to the tactical situation confronting them'.<sup>124</sup> The AIF was required to follow British guidance for the purposes of uniformity and interoperability, but units – both in the AIF and the wider army – had the autonomy to experiment with tactics, techniques, and procedures.

As the AIF gained experience, it took advantage of this autonomy. In a memo to Brudenell White in February 1917, Lieutenant-Colonel Arthur Ross (Commandant, I ANZAC School) questioned whether they were 'right in sticking to the 1914 book as to the advanced guard and infantry methods and formations? Should we not practice on the basis of a larger infraction on the enemy's front, the close support of mounted troops, by means of armed motor cars, busses, etc?'.<sup>125</sup> Ross' suggestion challenged guidance emanating from the top of the army, which recommended that 'the pre-war manuals remain in force', and that 'it is the duty of Commanders to see that the principles laid down in the manuals are adhered to'.<sup>126</sup> However, Ross believed in the need for uniformity, noting that 'the efficient carrying out in practice of all the latest methods, memorandum, experience from recent fighting, employment of weapons etc, should be on absolutely clear cut lines. In practice today this is not so'. For Ross, variety of method should only be allowed in 'very local conditions'.<sup>127</sup> There was a need for standardised knowledge, but not to the point of being doctrinaire.

The military publications produced throughout the war formed the basis of the army's various courses and schools of instruction across its operational theatres. The publication of

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<sup>123</sup> TNA, WO 95/4368, EEF GHQ War Diary, Memo to GOCs XX, XXI and DMC, 16 October 1917.

<sup>124</sup> *Ibid.*, GHQ to Commandant, Senior Officers' School Heliopolis, 6 October 1917.

<sup>125</sup> AWM, White Papers, 3DRL/1400 4/7, Ross to White, 4 February 1917.

<sup>126</sup> AWM, AWM25 947/76, Infantry Training France 1917 Memo, GHQ to GOCs Army, 6 May 1917.

<sup>127</sup> AWM, White Papers, 3DRL/1400 4/7, Ross to White, 4 February 1917.

SS152 finally placed these schools on an even footing. Prior to that, the school system developed on an ad hoc basis. During the AIF's initial desert training in early 1915, the system was in its infancy, leading to a greater reliance on individual commanders for the training of units. The inexperience of the newly raised Australian formations required them to learn the basics of soldiering from scratch. They were also required to adopt the new British company organisation.<sup>128</sup> This meant that small unit training, particularly at platoon and company level, had to be extended before progressive and formation training could take place. The monotony of basic training was a source of frustration for the individual soldier thirsting for front line action. As one NCO observed, 'the men are fed up of it all and will not improve much more in fact I consider they are going backwards now they have been disheartened, constant promises and nothing coming of any of them'.<sup>129</sup>

The extension of company training meant that battalion and brigade training did not commence until February 1915.<sup>130</sup> These larger exercises were overseen and umpired by senior commanders. Unfortunately, they were not always successful. Brudenell White admitted to 'feeling depressed' as a result of a poor divisional manoeuvre, while the night attack exercise of the 2nd Australian Brigade in March 1915 was 'not good'.<sup>131</sup> Comments on the Australian and New Zealand Division's operations also highlighted significant deficiencies, mostly fundamental in nature, including the inadvisability of laying down 'hard and fast rules', indifference around communications, and the 'injudicious' distribution of troops.<sup>132</sup> To compound matters further, some formations completed progressive training quicker than others resulting in a lack of uniformity between formations. Monash recalled how 'we [4th Australian Brigade] have already taken part in three large Divisional Field operations with every man out and spread out over miles of country - while in the case of those who left Australia with

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<sup>128</sup> AWM, Papers of Lance-Corporal H. Gibson, PR03311, Gibson to family, 31 January 1915.

<sup>129</sup> AWM, Papers of Lance-Corporal F. O'Brien, PR83/26, O'Brien to family, 26 March 1915.

<sup>130</sup> AWM, Papers of Sergeant G. F. Greig, PR00277, Diary entry, 10 March 1915.

<sup>131</sup> NLA, White Papers, MSS 5172 1/3/21, Diary entry, 5 March 1915 and 12 March 1915.

<sup>132</sup> AWM, Monash Papers, 3DRL/2316 3/6, 'Umpire's Notes on Divisional Operations', 19 February 1915.

Bridges, they have not, so far, although they have been in Egypt ten weeks, had a single day's Brigade training, much less Divisional training'.<sup>133</sup> In fact, Bridges' 1st Australian Division never got to the stage of divisional manoeuvres. The usefulness of these large scale manoeuvres was debatable given the nature of terrain and the type of warfare experienced at Gallipoli.<sup>134</sup> The only tangible benefit of the desert training lay in the establishment of a tactical foundation upon which the units could build. However, this training could not make up for the lack of experience, particularly at the junior levels of command, nor could it rectify weaknesses in staff work.

During the AIF's operations at Gallipoli, there were developments in Egypt that aimed to improve the training of AIF reinforcements and future drafts. These improvements can be largely attributed to the work of a British regular officer, Major-General James Spens, commanding Cairo Military District. As Robert Stevenson argues, it was Spens' work that laid the foundations for the Australian and New Zealand Training Centre at Tel-el-Kebir. Although Spens was outside Australian jurisdiction, reporting to Sir John Maxwell, he established a system whereby each of the AIF's brigades at the front were represented by a battalion at the depot.<sup>135</sup> These battalions were designed to provide replacement personnel. Staffed by British regular officers, and despite taking time to bed in, these battalions produced good results from September 1915 onwards.

Following the evacuation from Gallipoli, AIF troops reorganised into four divisions.<sup>136</sup> To facilitate the training of reinforcements for these divisions, the Training Centre at Tel-el-Kebir came under GHQ control and was placed under the command of Major-General Stuart Hare, a British regular, in April 1916. Hare was supported by a number of regular officers as

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<sup>133</sup> AWM, Monash Papers, 3DRL/2316 1/1, Monash to wife, 13 February 1915.

<sup>134</sup> AWM, Papers of Private Elliot Wilkie, PR03289, Introduction to Ts diary, n.d.; Grey, *A Military History of Australia*, pp. 88-89; P. Pedersen, 'The AIF on the Western Front: The Role of Training and Command', in M. McKernan and M. Brown (eds), *Australia: Two Centuries of War and Peace* (Canberra, ACT: AWM, 1988), pp. 169-170.

<sup>135</sup> Stevenson, *To Win the Battle*, p. 93.

<sup>136</sup> AWM, AWM25 721/78, Circular Memos re: reorganisation of AIF after Gallipoli at Ismailia (Tel el Kebir), February-April 1916, *passim*.

instructors, including Lieutenant-Colonel George Cape, formerly GSO1 to the 53rd Division.<sup>137</sup> Hare's remit was to 'take in hand the thorough and systematic training of all troops', but he was encouraged to correspond with Australian and New Zealand Headquarters on matters he considered necessary.<sup>138</sup> The situation he found at Tel-el-Kebir was far from satisfactory. Not only were there concerns around the discipline of Australian troops, but there were also issues as to the nature of authority. For the purposes of command and training, it was recommended that all of the AIF's training units come under Hare's command, while Colonel Reginald Spencer-Browne, the centre's commandant, should only have responsibility for the administration of the units.<sup>139</sup> It was also recommended that training at the centre should be confined to company exercises.<sup>140</sup> Hare was unconvinced by the arrangement, recalling that 'Spencer-Brown is quite pleasant about it, but as I am responsible to GHQ for the training of all troops in the camp, and he is under me and yet is responsible to Gen[eral] Sellheim, the position is an impossible one'.<sup>141</sup> For Hare, the reason the system eventually worked was due to Spencer-Browne's willingness to subjugate his authority. If Spencer-Browne departed and a 'cantankerous and pigheaded man took his place', then the system would have been unworkable.<sup>142</sup> For the Australian government, however, this represented a direct infringement on the AIF's autonomy, particularly when concerns were raised over Spencer-Browne's suitability. In a letter to Pearce, Godley acknowledged that the centre was on a 'better footing', but Spencer-Browne's 'limitations do not admit of his satisfactorily training and administering such a large body of men. What is really wanted is a good, live, young, active, energetic Major-General. Possibly this may be supplied by the War Office in England'.<sup>143</sup>

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<sup>137</sup> C. H. Dudley Ward, *History of the 53rd (Welsh) Division 1914-1918* (Cardiff: Western Mail, 1927), p. 58.

<sup>138</sup> AWM, AWM255 88, Establishment of Australia and New Zealand Training Centre at Tel-el-Kebir, Lynden-Bell to Hare, 12 April 1916.

<sup>139</sup> AWM, AWM25 721/52, Suggested Organisation Tel-El-Kebir Training Centre, April 1916, Memo, 'Modus Vivendi for ANZ Training Centre' n.d., p. 1.

<sup>140</sup> AWM, AWM255 88, Establishment of Australia and New Zealand Training Centre, Lynden-Bell to Hare, 6 May 1916.

<sup>141</sup> IWM, Papers of Major-General Sir S. W. Hare, 09/86/1, Diary Entry, 15 April 1916.

<sup>142</sup> *Ibid.*, Diary Entry, 18 April 1916.

<sup>143</sup> AWM, Godley Papers, 3DRL/2233, Godley to Pearce, 31 May 1916.



Along with the reorganisation of the Training Centre, the AIF had access to a range of formal training classes, which ran under the auspices of the Imperial School of Instruction at Zeitoun. Besides courses for training officers and NCOs, it also ran machine-gun, Lewis gun, signal and telephone, artillery, Stokes gun, and bombing classes.<sup>144</sup> To ensure equal training opportunities, the Imperial School was brought under the control of GOC Egypt with 50 per cent of vacancies allotted to the ANZAC.<sup>145</sup> Bringing the school under GOC Egypt increased the potential for uniformity of training across formations still in Egypt. These higher level courses, which focused on the training of instructors and specialists, were designed to supplement divisional schools and individual training at unit level. The latter warranted particular attention given the dilution of experience after Gallipoli and the considerable expansion of the AIF. In an attempt to mitigate this, the ANZAC staff issued a series of circular memoranda to provide guidance on the most valuable types of training. These memoranda advocated 'section, platoon, company and specialist training', but 'too much close order drill must be avoided'.<sup>146</sup> Lectures and hints were aimed at young or recently promoted officers to ensure that their training kept the men interested. As one pamphlet outlined, 'owing to the limited military experience of many of the company and platoon commanders, it has been noticed that some of them soon get to the end of their ideas regarding training and then devise exercises which are of little value'.<sup>147</sup>

Both British and Australian higher commands raised concerns around the efficacy of the training. In a letter to Colonel Wigram, Birdwood confessed he did not 'truthfully feel that any of them [4th and 5th Australian Divisions] are thoroughly trained divisions, and they are not

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<sup>144</sup> AWM, AWM25 877/1, Courses of Instruction at ISI Zeitoun, GOC Egypt to GOC I ANZAC, 22 February 1916; TNA, WO 95/4633, 54th Division GS War Diary, 6 March 1916; A. J. Murray, *Sir Archibald Murray's Despatches June 1916 – June 1917* (London: J. M. Dent, 1920), p. 8.

<sup>145</sup> AWM, AWM25 877/1, Courses of Instruction at ISI Zeitoun, GOC Egypt to GOC I ANZAC, 22 February 1916.

<sup>146</sup> AWM, AWM25 941/2 PART 2, Training Infantry - Egypt 1915-1916, 'Training Memo No. 1', 5 April 1916.

<sup>147</sup> AWM, Monash Papers, 3DRL/2316 3/38, 'Some hints on training', 21 March 1916.

equal in this respect to the two I took with me to the Peninsula last April'.<sup>148</sup> The British high command was far from charitable in its own assessment. In a private letter to Robertson in March 1916, Murray saw the Australians' 'lack of discipline and the inefficiency of their officers', as well as their 'enormous conceit in themselves' as considerable handicaps.<sup>149</sup> This evaluation was formalised in his report on the efficiency of the 4th and 5th Australian Divisions. Murray deemed the officers 'poor in military knowledge, and herein lies the chief trouble both as regards infantry and artillery. With good regular officers who know how to train and command them, the infantry would soon be turned into a magnificent fighting force'.<sup>150</sup> However, no regular officers were available to command the new Australian formations and, even if there had been, such a move would mean negotiating a political minefield. Sir John Maxwell was inclined towards leniency in his assessment. He suggested that the shortage of trained officers was due to the high casualties at Gallipoli, as well as there being 'no smart regular battalion to set a standard by'. For Maxwell, 'a Territorial Division in the making' was not conducive to the learning of discipline or soldiering.<sup>151</sup> Birdwood, fully aware of the limitations within the AIF's command structure, informed Pearce that he hoped 'to send all our young officers... to regular training schools either in England or France, before taking up their duties with the regiments. This will be a tremendous boon to us, and will ensure regiments [are] getting men who are, at all events, tolerably trained in the many details of company officers' work'.<sup>152</sup> This was a clear acknowledgement of the AIF's dependence on the British army's training infrastructure and training methods.

Upon its eventual arrival in France, the AIF made considerable use of British training schools, particularly for the training of company commanders, platoon sergeants, and various

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<sup>148</sup> AWM, Birdwood Papers, 3DRL/3376 11/2, Birdwood to Wigram, 16 March 1916.

<sup>149</sup> IWM, Murray Papers, 79/48/3, Murray to Robertson, n.d (c. March 1916).

<sup>150</sup> AWM, AWM252 A108, 'Reports on degree of efficiency of Australian Divisions prior to leaving Egypt', 30 May 1916.

<sup>151</sup> LHCMA, Robertson Papers, 4/5, Sir John Maxwell to Robertson, 7 March 1916.

<sup>152</sup> AWM, Pearce Papers, 3DRL/2222 3/2, Birdwood to Pearce, 19 May 1916.

specialists.<sup>153</sup> Unlike their dominance in Egypt, the I and II ANZAC were now just two out of eighteen corps in the BEF. More than ever, they had to adhere to the British way of working. Lieutenant-Colonel John Peck, for example, was the first Australian officer to attend Bonham-Carter's senior staff school at Hesdin. Bonham-Carter recalled that, when he first arrived, Peck was 'like a nervous foal bucking and blowing through his nostrils in his anxiety and fear that he would be treated with lack of friendliness or courtesy by a lot of stiff regular staff officers'.<sup>154</sup> However, Peck 'found himself among the friendliest and most generous minded lot of men he had ever met. He wanted to apologise for his former ideas and ignorance, and that no Australian would be allowed to run down the "Imperial" Army in his presence'.<sup>155</sup>

Through the use of military publications and the training school system, the British promoted uniformity of method across its organisation. The AIF benefitted from these two formal methods of learning during its own integration process. In the main, the AIF was required to conform to the British way of working, particularly in the opening phases of the war. However, enough flexibility existed within this formal system to allow for innovation, individuality, and even divergence at the tactical level. Indeed, as each commander trained his own formation, the possibility for divergence and individuality was increased. Nevertheless, this training was carried out within the formal parameters laid down in pamphlets such as *SS152*. The various AIF training schools were modelled on *SS152*'s template. For the AIF to function as a working part of the larger British army, this shared template was vital. Although Bentley argues that 'the spirit of criticism and independence' allowed for greater innovation and creativity in the AIF's tactical thinking, it is important to recognise that the AIF's learning process was intertwined with that of the entire army.<sup>156</sup>

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<sup>153</sup> AWM, AWM4 1/44/8, 2nd Australian Division GS War Diary, 29 March 1916; AWM, AWM4 1/48/3, 4th Australian Division GS War Diary, 20 June 1916; AWM, AWM25 881/11, Schools. Training Instructions and Organisation. GHQ Recommendations, BGGs I ANZAC to MGGs Second Army, 7 September 1916. The I ANZAC School did not open until 11 November 1916.

<sup>154</sup> CAC, Bonham-Carter Papers, BCHT 9/2, Autobiography, n.d., p. 26.

<sup>155</sup> *Ibid.*

<sup>156</sup> Bentley, 'Champion of Anzac', p. 300.

Before considering the AIF's efforts to self-integrate, it is worth summarising briefly how its integration process evolved over time. From its initial establishment to its bloodying at Gallipoli, the AIF was subject to a fairly prescriptive process. Imperial officers were prevalent at all levels of command, and also played a role as specialist instructors. Memos abounded, gently reminding AIF officers to consult *FSR* or one of the many SS pamphlets published during the war. This oversight was to be expected whilst the AIF learned the fundamentals of war. Although Gallipoli provided it with combat experience, the expansion and reorganisation of the AIF led to a dilution of experience. This resulted in Imperial officers remaining in command positions. As the force gained in experience, the relative prescription of the process decreased. For the purposes of interoperability, the AIF was still expected to utilise existing publications and training infrastructure. However, its growing experience, particularly from May 1916 onwards, resulted in greater autonomy and a lighter touch from its Imperial overseers. Boosted later by the policy of 'Australianisation', it was this growing experience that gave the AIF the opportunity and, arguably, the confidence to self-integrate.

The beginnings of self-integration were clear following the AIF's arrival on the Western Front. It sought to benefit from the rapid and organised transmission of experience and information from long serving, often British, formations through the process of attachment. This was a common practice and one familiar to the Australians who were used to instruct incoming Kitchener army divisions at Gallipoli.<sup>157</sup> These attachments were often arranged by individual commanders as a way of self-integrating. Attachments allowed for knowledge sharing through heuristic learning, whilst also offering a practical way of integrating formations into a new expeditionary force.<sup>158</sup> In March 1916, for example, officers and men from each battery in the 1st Australian Division were attached to the 9th Division's artillery for instruction, while in

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<sup>157</sup> AWM, Birdwood Papers, 3DRL/3376 11/6, Birdwood to Kitchener, 18 August 1915; LHCMA, Hamilton Papers, 7/1/16, Birdwood to Hamilton, 9 September 1915.

<sup>158</sup> TNA, WO 95/4324, 54th Division GS War Diary, 1 September 1915.

April of the same year, five officers and twenty ORs were attached to the 28th Brigade.<sup>159</sup> The AIF divisions that arrived on the Western Front in June 1916, such as the 4th Division, took advantage of the experience already gained by the 1st and 2nd Australian Divisions. Charles Rosenthal, then temporary commander of the 4th Australian Division, actively liaised with the divisional and artillery headquarters of the 1st and 2nd Divisions, as well as the New Zealand Division, regarding the ‘attachment of officers and men for instruction’.<sup>160</sup>

Unlike its fellow divisions, the 3rd Australian Division received far more systematic training, with full use made of the British army’s manuals and wider training infrastructure. It also showcased a number of self-integration methods. Not only did Monash have two Imperial staff officers to support him, he also had access to the existing schools system as well as his own experience of fighting on the Western Front. Monash was preoccupied with practicality: the AIF had ‘20 months experience of war [and] there will not be a minute wasted in teaching things the men will afterwards have to unlearn. My 6 weeks in France will be a powerful help to me in this respect’.<sup>161</sup> Having witnessed firsthand the benefit of the school system, he took full advantage of it, sending his officers and NCOs to Army schools and courses – both in Britain and France - to be trained as instructors.<sup>162</sup> In one of his first conferences as commander, Monash outlined his attitude towards training and instruction, noting the importance of getting ‘instructors away to courses and carry[ing] on instruction of others concurrently’, while pressing for the ‘higher training of officers at divisional school in subjects such as reconnaissance, order and message writing...’<sup>163</sup> He was also desirous for ‘experienced officers’ from France, in order to benefit from their ‘better understanding of requirements’.<sup>164</sup> Using the I

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<sup>159</sup> TNA, WO 95/1734/2, 9th Division GS War Diary, 31 March 1916 and 14 April 1916; L. M. Howson, “‘The Scrappin’ 9th’ The 9th (Scottish) Division: A Centre of Tactical Excellence?”, MA Dissertation, University of London, 2011, p. 32.

<sup>160</sup> ML, Rosenthal Papers, MLMSS 2739, Diary Entry, 19 June 1916.

<sup>161</sup> AWM, Monash Papers, 3DRL/2316 1/1, Monash to wife, 22 July 1916.

<sup>162</sup> AWM, AWM27 355/41, Report by Brigadier Newton Moore on the establishment and administration of the Australian and New Zealand Depots in the United Kingdom, May 1915-May 1916, *passim*; AWM, Monash Papers, 3DRL/2316 3/43, ‘Report on 3rd Australian Division by Major-General Sir Francis Howard’, 27 August 1916.

<sup>163</sup> AWM, Monash Papers, 3DRL/2316 3/42, Notes from Conference with Monash, 21 July 1917.

<sup>164</sup> NLA, White Papers, MSS 5172 2.4/25, Monash to White, 22 August 1916.

ANZAC's circular and training memoranda as a template, the 3rd Australian Division issued its own versions, offering guidance on aspects such as bayonet training and general points on how to be an effective platoon commander.<sup>165</sup>

In keeping with the army's approach, heuristic learning through the establishment of 'The Bustard' trench system at Lark Hill on Salisbury Plain supplemented these institutional methods. The 3rd Australian Division dug 'The Bustard' between August and September 1916 for the purpose of familiarising troops with trench conditions, including experience of live-fire training. Monash aimed for a system where brigades could 'go to live for several days at a stretch and then carry out a complete relief'.<sup>166</sup> This system would be used to simulate assaults, practice reliefs, and consolidate positions. Drawing on his own experience, Monash was keen to add realism and atmosphere wherever possible, hoping to involve the artillery and RFC during exercises.<sup>167</sup> The decision to establish this working trench system demonstrated greater autonomy and training sophistication within the AIF, and provided a good example of its self-integration into the British army.

Although Monash was given a free hand in the training of his command, he was still subject to quality control through a series of inspections by British regular officers. These officers included Generals Sir Henry Sclater (GOC Southern Command), Sir John French (CinC Home Forces), and Sir Francis Howard (Inspector of Infantry). In a letter to his wife, Monash complained that his division was 'being inspected to death, and it does disturb the training so'.<sup>168</sup> However, the inspections were necessary in order to identify areas for improvement. In August 1916, Howard's inspection drew attention to the 'elementary stage' of bayonet training in the 3rd Australian Division owing to 'the different systems obtaining in Australia and with us'. Howard went on to suggest the value of despatching British instructors to Australia in order

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<sup>165</sup> AWM, Monash Papers, 3DRL/2316 3/42, *passim*.

<sup>166</sup> NLA, Papers of General Sir J. Monash, MSS 1884 71/481, Monash to Birdwood, 2 August 1916.

<sup>167</sup> M. Molquentin, 'Training for War: The Third Division A.I.F. at Lark Hill, 1916', AWM Summer Scholarship Paper, 2005, p. 26.

<sup>168</sup> AWM, Monash Papers, 3DRL/2316 1/1, Monash to wife, 3 September 1916.

to ‘guide it in the right lines’.<sup>169</sup> For the most part, Howard’s inspection was favourable, and concluded with the remark that ‘the Division promises so well that if left intact and supplied with rifles it should be ready to go out fully trained in the class of warfare now obtaining by the 3rd week in October at the latest’.<sup>170</sup> Howard’s prediction was not far off the mark; the 3rd Australian Division arrived on the Western Front in November 1916.<sup>171</sup>

Although there was suitable flexibility in the British army’s methods, the process of integrating formations into a well-established organisation was fraught with tension for both newcomer and long-standing member. As this section will show, the process was far from perfect, particularly as it involved a certain degree of unlearning and confrontation of conflicting values and expectations. To become a part of the army’s organisational culture, the AIF had to learn the army’s way of doing things. New members had to interact with existing members of the organisation in order to learn what was expected of them, and what they could or could not do. The army’s use of both formal and heuristic methods to integrate the AIF and other newcomer formations shows a sophisticated understanding of its learning requirements. The fact that the AIF was considered a *corps d’élite* by the end of the war is in no small part due to the army’s integration methods.

For long serving members of the army, there was an element of doubt around the AIF’s ability and wariness over its distinct sense of self. For some, this sense of self was seen as ‘conceit’.<sup>172</sup> Prior to the AIF’s arrival on the Western Front, there were concerns over its ability to fit in with the British way of doing things despite its combat experience and its desert training. Questions around its discipline were most notable. Lynden-Bell, for example, remarked that ‘The Australians frankly terrify me. Their want of discipline is something awful’,

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<sup>169</sup> AWM, Anderson Papers, PR83/020, Monash to Anderson, 22 November 1916.

<sup>170</sup> AWM, Monash Papers, 3DRL/2316 3/43, ‘Report on 3rd Australian Division by Major-General Sir Francis Howard’, 27 August 1916; NLA, White Papers, MSS 5172 2.4/25, Monash to White, 22 August 1916.

<sup>171</sup> AWM, AWM4 1/46/1, 3rd Australian Division GS War Diary, 24 November 1916.

<sup>172</sup> LHCMA, Robertson Papers, 8/1, Murray to Robertson, 18 March 1916.

while Cowans teased Godley over the latter's 'obstreperous Australians', commenting that 'they are rather a handful'.<sup>173</sup> Officers in the AIF realised that the development and maintenance of discipline was a vital aspect of their self-integration. Training memos prior to the AIF's despatch to France emphasised the importance of discipline, noting that:

Improvement in training must be accompanied by improvement in discipline. To be a soldier a man must realise the necessity of loyally observing orders both on and off parade. The chief outwards signs of the spirit of discipline are keenness of interest in work, in training or on duty, smartness of movement at all times, pride in one's personal appearance, cheerful recognition of authority on all occasions.<sup>174</sup>

The AIF's arrival on the Western Front was met with concerns around the force's combat effectiveness. However, this was not just limited to the AIF. As we have seen, it was a widely held prejudice against formations that had experienced combat in subsidiary theatres. Commenting on the 29th Division, for example, Rawlinson wrote how it wanted 'a bit of smartening up', and that the division has 'an idea that the only heavy fighting that has been done has been in Gallipoli'.<sup>175</sup> Similar comments were levelled at the AIF, Lynden-Bell remarking that, 'after all the laudatory accounts of their doings as soldiers which have appeared in the press for the past year or so, it is very difficult to convince them that for purposes of fighting in France they know practically nothing'.<sup>176</sup> Surprisingly, even senior officers were not spared criticism, Murray observing that, although Brudenell White was 'a very able man', he 'must be made to understand that in France his work on the General Staff will be so exacting as to utterly prohibit his continuing to run the Australian Forces generally both in France and Egypt'.<sup>177</sup> There was a tendency within the AIF to contrast its previous experiences with those found on the Western Front. In a letter to his wife, Monash wrote that 'It hasn't taken

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<sup>173</sup> LHCMA, Howell Papers, 6/2, Lynden-Bell to Howell, 20 February 1916; LHCMA, Godley Papers, 3/88-114, Cowans to Godley, 4 February 1916.

<sup>174</sup> AWM, AWM25 941/2 PART 2, Training Infantry - Egypt 1915-1916, Training Memo No. 1, 5 April 1916.

<sup>175</sup> LHCMA, Robertson Papers, 7/5, Rawlinson to Robertson, 8 April 1916.

<sup>176</sup> LHCMA, Howell Papers, 6/2, Lynden-Bell to Howell, 20 February 1916.

<sup>177</sup> IWM, Murray Papers, 79/48/3, Murray to Robertson, 23 March 1916.



us many hours to tumble into the regular routine of trench life - but oh dear! compared with Anzac, the people here don't know what war is' before going on to declare that 'war in France is simply child's play to what it was in Gallipoli'.<sup>178</sup> Birdwood expressed similar sentiments, pointing out to Pearce that the AIF's experience at Pozières was 'not looked upon... as such a great feat as the CinC and others here regard it, for it certainly does not compare with the attack on Lone Pine in actual hand to hand and determined fighting'.<sup>179</sup>

This initial prejudice lessened as the AIF proved itself on the Western Front, but there were still instances later in the war where its capabilities and bearing were criticised, notably in Palestine. In July 1917, Lynden-Bell wrote to the War Office commenting that 'I only wish we could get some really good Brigadiers from France for the Australian brigades, but of course for political reasons it is quite impossible to get rid of our present Australian brigadiers. They are all good brave fellows, but lack knowledge of combined cavalry action'.<sup>180</sup> In February 1918, Chauvel, already conscious of his own limitations, also raised concerns around perceptions of the AIF in Egypt:

There is no doubt that we Australians are decidedly unpopular, here as elsewhere, but I am afraid we have our manners entirely to blame. I am always trying to impress upon our people that they are making themselves intensely disliked by their discourtesy and that they are being made to pay for it... It is certainly being brought home to the Anzacs that they are no longer the only pebbles on the beach and I don't know that it will do them any harm!<sup>181</sup>

Although the raw material was generally good, there were still concerns around the knowledge and aptitude of the AIF's commanders, particularly in the Light Horse. Both Chauvel and Howard-Vyse acknowledged these concerns in their joint call for a Desert Mounted Corps 'School for Young Officers'.<sup>182</sup> Based on *SS152*'s guidance, this school instructed 'lately

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<sup>178</sup> AWM, Monash Papers, 3DRL/2316 1/1, Monash to wife, 20 June 1916 and 18 July 1916.

<sup>179</sup> AWM, Pearce Papers, 3DRL/2222 3/3, Birdwood to Pearce, 1 August 1916.

<sup>180</sup> TNA, WO 106/718, Correspondence between General Staff, War Office and Egypt, Lynden-Bell to Maurice, 27 July 1917.

<sup>181</sup> AWM, Chauvel Papers, PR00535 4/12, Chauvel to wife, 3 February 1918.

<sup>182</sup> AWM, AWM25 877/12, Establishment of School for Young Officers, Desert Mounted Corps, BGGs DMC to CGS, 17 January 1918.

commissioned officers... in their duties as officers, and in the tactics of troop leading'.<sup>183</sup> It aimed to supplement instruction provided at GHQ schools at Zeitoun, as well as that found in divisional schools and courses of instruction. After receiving GHQ authorisation, the school opened on 18 February 1918. Its establishment not only highlights the army's flexibility, but also serves as yet another example of AIF units utilising army infrastructure to ensure the continued and efficient training of their officers. Despite these intentions, as well as the infrastructure and expertise at the AIF's disposal, the constraints of time and the demands of war remained major challenges. In the face of these challenges, the AIF did not simply maintain its success in integrating; it built on this success to become a *corps d'élite*.

The decision to expose the AIF to both formal and heuristic methods is evidence of the army's sophisticated understanding of learning and knowledge sharing. These formal methods, refined through the integration of British territorial and Kitchener army formations, encouraged uniformity between operational theatres and formations themselves irrespective of their nationality. The use of heuristic methods shows that the AIF was not treated purely 'according to British drill-book methods'.<sup>184</sup> These informal methods were often the most effective way of integrating new contingents.<sup>185</sup> In this respect, the army showed itself to be sensitive to the political, cultural, and social mores of this particular national contingent.

By mid-1916, the AIF's troops and commanders had proven themselves in combat and had enough experience to operate without the oversight of Imperial commanders and mentors. The overwhelming majority of Australian officers at division and brigade level suggests that the army's methods had succeeded where they mattered most – at the operational and tactical level. This, coupled with the inherent flexibility of the army's methods, allowed the AIF to self-integrate. Operating within the existing infrastructure, AIF formations arranged their own attachment schemes, along with more practical methods, such as the development of 'The

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<sup>183</sup> *Ibid.*, BGGs DMC to GOC Australian Mounted Division, 13 April 1918.

<sup>184</sup> Bean, *Official History*, I, p. 126.

<sup>185</sup> Korte and Lin, 'Getting on board', pp. 407-428.

Bustard' system. For the purposes of interoperability, uniformity of training and method was desired. However, this did not prevent low level innovation. It was here that the character and individuality of formations shone through. Rather than adopting a doctrinaire attitude, the army had to be sensitive to the various new sub-cultures that now existed within its organisation.

The army recognised that it needed to invest in a series of methods that would provide a holistic integration process for newcomers. It could not favour formal over informal methods. Its desire to develop these mutually supportive methods demonstrates that the army had a greater awareness of the importance of learning than previously thought. It also reveals a preference for autonomy and initiative that continued to support its pre-war ethos. The success of these methods is evident. As one general remarked, 'it is not possible to turn civilians into trained commanders in a few months - the wonder is that they have picked up so much and done as well as they have!'<sup>186</sup>

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<sup>186</sup> AWM, Birdwood Papers, 3DRL/3376 2/4, Plumer to Birdwood, 14 April 1917.

## CONCLUSION

The course of the campaign in this theatre followed closely the course of events in the main Western theatre. Thus, the first period, the defence of the Canal, corresponded to the first check of the enemy's onrush in France and Belgium; the period of the advance through the Sinai desert, to the general development of the Allied strength... the 1917 advance, to the period of increased Allied pressure which exhausted the enemy's reserves; while the last advance coincided with the final Allied counter-offensive.<sup>1</sup>

General Sir Edmund Allenby

I would like to emphasise how to study history. The real value is not a remembrance of dates or number or details, but first and foremost the study of human nature. For successful war depends on a knowledge of human nature and how to handle it.<sup>2</sup>

General Sir John Shea

When the guns fell silent on 11 November 1918, the British army had fought across the fields of France and Flanders, the deserts of Mesopotamia and the Sinai, the mountains of Italy and Salonika, the craggy cliffs of Gallipoli, and the jungles of East Africa. It had expanded from a small, professional force into a mass, multi-national citizen army. It had fought not only with fists and bludgeons, but also with brains and rapiers. In short, at war's end, it was a military both experienced and transformed. This final chapter will summarise the findings of this study and consider its implications for three questions: the effectiveness of the army at learning and adaptation; the relationship between learning and innovation within military institutions; and the nature of large organisations when faced with change.

This study has demonstrated that learning within the army was more complex than hitherto thought. The army proved to be effective and institutionally capable of learning and adapting both on and beyond the Western Front. This effectiveness was contingent on a number of different factors, which broadly align with the hypotheses outlined at the beginning of the study. The army's ethos enhanced its ability to learn and adapt. It also influenced its approach to learning. While it developed a series of formal methods, the army also tolerated and encouraged

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<sup>1</sup> Quoted in C. Falls, *Official History of the War: Military Operations, Egypt and Palestine 1917, Part II*, II (2 vols., London: HMSO, 1930), pp. 632–633.

<sup>2</sup> LHCMA, Shea Papers, 6/3a, 'The Study of Military History as exemplified by the Palestine Campaign 1917-18', n.d.

informal methods. This diversity underpinned its flexibility, which enabled it to integrate civilians, combat formations, and national contingents. Through a combination of its ethos and flexibility, the army promoted a culture of innovation across its theatres where individuals were given the opportunity to influence institutional behaviour.

Fundamental to the army's learning effectiveness was the influence of its pre-war ethos. This proved an important and enduring framework throughout and, as David French has shown, beyond the First World War. Though the army expanded and changed almost beyond recognition, its ethos survived. Its enduring nature was, in part, due to wider social and cultural aspects. It was shaped by, and representative of, the values of civil society. In some respects, civilians who joined the army already had a latent understanding of this ethos. Its survival was also ensured through implicit and explicit means. The regular army still dominated the highest levels of command. Commanders-in-Chief and senior generals were imbued with this ethos and, through their personal command styles, were able to impress it on to lower levels of command. Attachments and mentoring schemes offered another implicit way of instilling this ethos, as seen with the integration of territorial, Kitchener army, and AIF formations. Publications and training schools promoted this ethos explicitly. Pre-war manuals such as *Infantry Training* and *FSR* were used throughout the war, and, where possible, regular army instructors were sought to run training schools across the various expeditionary forces.

This ethos provided the army with flexibility, enabling it to recalibrate its approach to learning quickly in response to its increasingly civilian composition. This study, therefore, refutes Murray's assertion that 'the bureaucratic framework and the culture of the pre-war period ensured that learning took an inordinate amount of time'.<sup>3</sup> The army realised early on in the war that principles and pragmatism were adequate for those who had military experience, but for newcomers they were not enough. The army, therefore, embarked on a far more systematic approach to knowledge capture and dissemination. This also extended to the subsidiary theatres. Though knowledge was disseminated in a standardised format, it remained

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<sup>3</sup> Murray, *Military Adaptation*, p. 22.

for each force to decide whether to ignore or adapt this. The various expeditionary forces and, indeed, the corps and divisions with them were not unitary. They each had their own idiosyncrasies and ways of operating. The army was, therefore, a culture of sub-cultures. However, these sub-cultures and idiosyncrasies were still consonant with the values and norms of the army's wider ethos.

This ethos also determined the army's approach to learning. The relationship between learning and ethos was one of reciprocal interdependence. In this respect, the study supports Foley and Catignani's respective research into the impact of culture on learning. However, it also provides a point of departure from Foley's assertion that the army prioritised informal methods. Evidence suggests that the army's approach to learning was necessarily complex with both informal and formal methods utilised in equal measure. These two kinds of avenue ran alongside one another. In the opening months of the war, the army pursued an initially ad hoc approach, but it was not long before it recognised the need for a central knowledge repository. The deluge of publications and training schools across all theatres suggests a heavy-handed, interventionist approach. These publications and schools remained in force throughout the war, but that is not to say that informal methods were any less important or any less prevalent. As in other large organisations and indeed with the modern army today, individuals turned to each other, gathering knowledge unofficially. This was aided by certain connections between individuals, whether through shared military service, attendance at the same public school, or through other social circumstances.

Although the formal-informal split is useful, this study has shown the inadequacy of such an over-simplistic model. Such a split masks the complexity of organisational learning. It is perhaps more accurate to posit the army's approach to learning in terms of systematic and incidental efforts. Allenby's appointment to command the EEF, for example, had a systematic effect. His impact on the force was highly personal, but his appointment was ultimately determined by the organisation. The casual interactions between former colleagues, or between members of neighbouring divisions were incidental in nature. This was a strength, in that it

could aid rapid adaptation, but also a weakness, potentially leading to the loss of knowledge. Though encouraging and attempting to draw on these incidental exchanges, the army was not able to capture all informal knowledge. Within some branches, such as mining, there was a higher level of success in this respect. The development of *Mining Notes* provided a systematic way of codifying incidental exchanges, capturing low level experiences, and disseminating them both vertically and horizontally. Rather than solely focusing on the top-down distribution of SS pamphlets, this study's examination of other methods, such as *Mining Notes* and incidental exchanges, has extended Foley's concept of horizontal learning to accommodate the British army.

The army's varying approaches to learning speaks to additional organisational tensions: ad hocism versus standardisation, principles versus prescription, and diversity versus uniformity. The publication of *SS152*, for example, typified these tensions with its simultaneous call for uniformity and diversity of method; while the army's vacillation between ad hoc and systematic approaches to personnel selection provides another example. These tensions were far from 'unproblematically compatible'.<sup>4</sup> They were ever-present. The army attempted to deal with these tensions by encouraging formations and individuals to innovate within institutional parameters. Unsurprisingly, this led to considerable diversity of method even within the more systematic approaches, such as training schools and publications. Expeditionary forces often amended recommended syllabi in response to differing tactical and geographical circumstances, while formations interpreted and adapted publications to reflect their local situations.

This flexible approach was not stumbled upon by accident, nor was it limited to a particular expeditionary force. It was a deliberate policy. Although institutional methods existed, territorial and Kitchener army formations, as well as national contingents, practiced self-integration in the form of horizontal learning. Even with the 'Indianisation' policy, for example, EEF GHQ was averse to laying down 'any uniform standard'. Corps and divisions were empowered to develop their own methods for integrating Indian units into their

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<sup>4</sup> Collini, 'Idea of "Character"', p. 49.

establishments. Similarly, the appointment of civilian experts, with or without military rank and uniform, was contingent on the situation in each force. A 'one size fits all' approach across all theatres would have been both ineffective and a positive danger.

The army had to be responsive, sensitive, and flexible to the needs of its forces. This responsiveness was particularly important for organisational learning. At the beginning of this study, organisational learning was defined as 'the process of improving actions through better knowledge and understanding'.<sup>5</sup> Broadly speaking, the army learned in two ways: first, through the learning of its members, and secondly, through integrating new members with new knowledge. By doing this, the army promoted a culture of innovation that went beyond the individual efforts of men such as Maxse and Geddes. These two individuals were merely examples of, rather than exceptions to, the rule. The army showed a willingness to interact with, and reach out for, the advice of those with recognised expertise whether they were civilians or soldiers. As a result, individuals were given the opportunity to influence institutional behaviour. However, this culture of innovation was greater than the individual's independent relationship with the organisation. Rather, it was the interdependence of individuals that proved key. For change to take place, a network of individuals was required. In this respect, this study supports and builds on Goya's analyses of innovation. Although an individual often came up with an innovative idea, it was for higher command to embrace a role that involved selecting, supporting, and spreading these ideas. There were a number of individuals – sponsors, facilitators, and entrepreneurs - who sat between the innovator and the higher command to smooth over organisational resistance. This network of individuals ensured that a culture of innovation pervaded the entire institution.

Civilian initiatives were a key part of this culture. The army was not an insular organisation, nor was it averse to change or new knowledge. It could not afford such an attitude when fighting a war against a rival military-industrial system. Chemical warfare, military mining, and inland water transport all resulted from the army's decision to listen to 'outsiders'.

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<sup>5</sup> Fiol and Lyles, 'Organizational Learning', p. 803.



The employment of civilian experts to head up transport missions and the implementation of efficiency measures, routine in the business world, provide additional examples of this outward-facing attitude. The army embraced such measures, willingly incorporating the language of business and efficiency into its day to day processes. These measures permeated throughout the army, both on and beyond the Western Front; from the card index of the Department of Organisation, to the ‘science of statistics’ in the Transportation Directorate, to the EEF’s ledger-based accounting system.

The army’s record was not spotless, however. Snobbery, intolerance, and ‘Blimpish pockets’ were inevitable. The reactionary attitude of men such as Stuart-Wortley, Clayton, and Sir Ronald Maxwell was used by contemporaries such as Lloyd George as a stick with which to beat the seemingly conservative army. Yet these attitudes were far from the norm, far less widespread, and far from unique to the military. Indeed, for large businesses like Brunner Mond, Armstrong Whitworth, and Krupp, the war was far from ‘plain sailing’, leading to significant, often unwanted, adjustment and upheaval. Certain departments or products were mothballed, machinery was constantly readjusted, labour diluted, while new manufacturing technologies and products were demanded and devoured by the military-industrial machine.<sup>6</sup> The war required both militaries and businesses to change. However, this was not easy. Change required individuals to modify their beliefs, look beyond the boundaries of their communities, and break with long-standing routines. Change is often perceived as threatening, particularly for those who feel that their job might be at risk. The army was aware of such threats. However, rather than idly sitting by, higher command helped prepare for change. It levered the army’s ethos, focusing on cohesion, communication, and collaboration, whilst also encouraging innovators to find their own ways of making change more palatable.

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<sup>6</sup> J. I. Watts, *The First Fifty Years of Brunner, Mond & Co 1873-1923* (Northwich: Brunner Mond & Co., 1923), pp. 52-55, 59; Anon., *The War Work of Sir W. G. Armstrong, Whitworth & Company Ltd* (London: Arden Press, n.d. [c. 1919]), pp. 1-2, 18, 23-24; H. James, *Krupp: A History of the Legendary German Firm* (Princeton, NJ: Princeton University Press, 2012), pp. 135-141.

In summary, through a combination of its pre-war ethos and increased fluidity in wartime, the army displayed organisational and cultural flexibility, allowing for high levels of learning and adaptation. This was not limited to a single formation, branch, or expeditionary force. It was an institutional undertaking. Unsurprisingly, this process was necessarily complex and far from even. The methods used to realise this were not always precise, nor were they always effective. However, with its preference for practical solutions, the army was prepared to look beyond its boundaries, considering non-traditional methods, as it sought to reckon with the challenges of modern war.

Learning, and the change that accompanies it, is a complex process. By examining the army institutionally, this study has revealed the extent to which its learning process was influenced by other institutions and agencies that sat outside the immediate military organisation. This speaks to the intricacy of a process that has, for the most part, been previously understood in a rather inward-looking, insular context. By thinking about learning as a collaborative process, it is possible to understand the links between certain individuals and institutions that enabled this process to function. This study provides a point of departure for our understanding of the army's learning process beyond the usual focus on tactical development. By focusing on the process rather than the outcome, it has highlighted the importance of factors such as organisational culture, human agency, as well as institutional and individual resistance. These factors, particularly those relating to human nature, have often been neglected in analyses of the army's learning process, which has encouraged a view of increasing competence. The reality, as this study has shown, was much more complex and fraught. Part of this tension was not so much to do with the resistance of elites, but the sheer amount of knowledge generated. While it is tempting to anthropomorphise the army, assigning it learning qualities, its essence and ability to learn is embodied in its individuals, rather than its formal processes. While the study has enhanced our understanding of learning in the British army of the First World War, it also has implications for our broader understanding of military innovation. It has shown that the links

between theatres and formations are worth exploring to understand how learning and adaptation are practiced institutionally. It has also shown that a vectored view of innovation is too simplistic. While Kollars' 'tolerance of creativity' has proved to apply to the British army, the evidence suggests that the army also encouraged creativity. By moving away from front line units, it is clear that a considered, pragmatic approach to adaptation took place across the military institution. Indeed, as this study has shown, such fluidity was not limited to those militaries fighting in modern, counterinsurgency operations. Even in an unlimited, total war, the British army displayed fluid tendencies. While by no means a 'flat' organisation, it was willing to listen to dissenters, promote self-reliance, and subvert the chain of command where necessary.

Although this study has considered how the army learned in wartime, its findings also have implications for our understanding of how large organisations negotiate and respond to change. The army experienced some of the same challenges and barriers faced by all organisations, notably resistance to change, 'Not Invented Here' syndrome, and the need to integrate newcomers. Though the army was unique in its function and role, the difficulties it faced in terms of learning and adaptation were far from unique. Before and during the First World War, parallels were drawn between the army and business. In 1907, Mackinder had called for the army administrator to be transformed into a 'soldier businessman', while Cowans was likened to a 'Managing Director', Haig a 'master sales manager', and the whole army an 'amazing business institution'.<sup>7</sup>

In some respects, the British army of the First World War was similar to a multinational corporation, with its home base at Whitehall and subsidiary branches across the world. The army experienced similar concerns to those that confronted such corporations, namely the reluctance to adopt a 'one size fits all' policy, the importance of promoting a shared culture, and

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<sup>7</sup> Funnell, 'Social Reform', p. 70; Marcossou, *Business of War*, pp. viii-ix, 2, 160.

the problem of geographical dispersion.<sup>8</sup> With its pre-war experience of fighting across the globe, the army refined or developed a number of ways to overcome these concerns. The use of liaison officers, secondments, and attachments allowed for subsidiary theatres to benefit from innovations taking place on the Western Front. Less tangible, however, was the importance of its ethos or 'corporate culture'. This encouraged an entrepreneurial attitude and a non-parochial mindset, mitigating the potential liabilities associated with bureaucracy and stagnation. Corporate culture determines how an organisation responds to change. For the army of the First World War, it determined how it fought, how it identified lessons, how it innovated, and, ultimately, how it put knowledge in power.

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<sup>8</sup> L. M. Lucas, 'The Role of Culture on Knowledge Transfer: The Case of the Multinational Corporation', *The Learning Organization* 13 (3) (2006), pp. 271-272.

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Papers of Lieutenant-General Sir H. C. C. Uniacke, MD 1160

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