

# **OPERATIONALISING UNCERTAINTY**

**The US military and the new spatiality of new security**

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This thesis is submitted in fulfilment of the requirements for the degree of Doctor of  
Philosophy

May 2007

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Parts of Chapters Three and Four have been reworked in the following articles:

"Commanding the Future: Command and Control in a Networked Environment." *Defense & Security Analysis* 22, no. 2 (2006): 197-202.

"Networking Security in the Space of the City: Event-Ful Battlespaces and the Contingency of the Encounter." *Theory & Event* 10.2 (2007).

"Organising Complexity: Modes of Behaviour in a Networked Battlespace." *Australian Army Land Warfare Studies Centre Working Paper Series* (2007) (forthcoming).

## Acknowledgments

I have been incredibly fortunate to be supported in this thesis by a number of engaging and engaged members of the US and UK militaries. In particular, Captain Steve Kenny (UK), Lieutenant Colonel Phil Sarnecki (US), and Major Jim Gallup (US) were invaluable in pointing me in the direction of some truly fascinating people.

In the UK, the staff of the then Joint Doctrine and Concept Centre (JDCC) – and in particular, Lieutenant Colonel Mark Maddick, were valuable, as was Kevin Duell in Command and Battlespace Management in the Ministry of Defence. Their counterparts in the United States' Office of Force Transformation were also generous with their time, particularly John Gartska and Captain Neil Parrott.

At the Marine Corps System Command (MARCORSYSCOM), Marine Corps Concepts Development Center (MCCDC), and the Warfighting Lab (MCWL), Lieutenant Colonel Ed Musto (UK), Major Jack Mades, and Matt Robinson were among the patient and willing participants in my learning curve. Visiting 3<sup>rd</sup> Infantry's 3<sup>rd</sup> Brigade home in Fort Benning while the Brigade was serving in Baghdad was both sobering and enlightening. Thanks to Lieutenant Colonel Jim Desjardin, Kim Akers from the Family Readiness Group, and Major Mark Borowski.

Finally, thanks to 1<sup>st</sup> Cavalry Division for their incredible support, honesty, and intelligence. General Chiarelli's openness to new ideas is deservedly well renowned, and it made for an eye-opening introduction to the US military. Thanks to Lieutenant Colonel Dave Clont, Major Simon Banton (UK), and Captain Kurt Ritterpusch for all their help in enabling the visit. Particular thanks to Major Pat Michaelis, who not only organised my trip but opened my mind to entirely new dimensions of the operation of 1<sup>st</sup> Cavalry. All of my interviewees in 1<sup>st</sup> Cavalry were thoughtful and frank, and I could not have written this thesis without their input.

From the field of academia, I have also been lucky to receive assistance from: Dr Rachel Woodward; David Schmidtchen who assisted in the publication of my article in *Australian Army Journal*; David Campbell, the organisers, and the participants in the Urbicide conference at Durham University in late 2005 where some of these ideas were tested, and later published in *Theory and Event*; Professor Martin Edmonds, who challenged me to articulate my ideas without hiding behind linguistic artifice,

and who assisted in the publication of my article in *Defense and Security Analysis*; and, Dr Paul Fletcher, who sat on my upgrade panel and provided helpful feedback.

Friends have also provided invaluable input into the formation of the ideas driving this thesis. In particular, Aaron Scholer, Matt Macdonald, Annie Moore, Danielle Beswick, Luis Lobo-Guerrero, Manav Guha, and Sarah Keenan have listened to these arguments more times than they probably cared to. Alison Lloydd-Wright went one step further, and read the thing during some of my darkest moments, giving me courage and hope. In my present job, Colonel Jack Flowers and Group Captain Murray Gordon have given me the space – and also the impetus – to finish, which is no mean feat, and an act of quiet generosity in its own right. This thesis has been copy-edited and proofread with the kind and professional assistance of Dr Stephanie Owen Reeder.

John Law has been incredibly patient and insightful in his supervision, always willing to get his hands dirty, even when it meant engaging the deeply violent subject matter. I cannot thank him enough for coming aboard this project, for grounding and guiding me, and for doing it the hard way when I left the country for warmer climes.

Sam Barlow has supported me with his care and belief in this last year. My sisters, Lucy and Penny, my brother-in-law, Xavier, and my nephews, Christian and Olivier have provided the best kinds of distractions and encouragements. But most of all, my parents have been a driving force of patience and understanding, conviction and determination. In the case of my mum, this driving force was literal, and her role as navigator around the southern States during my fieldwork created some of my fondest memories. Thank you so much, and I hope I have done you both proud (at last!).

And finally, Mick Dillon has been cajoling, patient, irrepressible, and consoling in turn. I will miss his ability to turn my world upside down with a single thought, and will always be grateful for his pastoral as well as academic intervention in my life. I have been blessed by his care and attention.

As always, however, the thesis is ultimately my own work, and particularly should not be taken to represent the views of any of my interviewees. All mistakes and omissions are entirely my own.

## Abstract

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This thesis is submitted in fulfilment of the requirements for the degree of Doctor of Philosophy

May 2007

This thesis intersects the literatures of critical security studies and material semiotics to explore the operation of the US military, and through it, the operation of contemporary security agendas. Based around fieldwork conducted with 1<sup>st</sup> Cavalry (US Army) after its deployment in Operation Iraqi Freedom Phase II, this thesis argues for the exploration of security studies through the spatial operation of violence. Emphasising spatiality, it is argued, allows for an openness – and uncertainty – in accounts of security that can otherwise see violence as overdetermined. This thesis demonstrates this uncertainty – this experimentalism – in two respects, exploring both 1<sup>st</sup> Cavalry's embrace of ontological multiplicity as part of its operation in Iraq, as well as the continuing interference of multiple modes of absence and presence in enacting military units in the battlespace. The thesis concludes by arguing for more detailed attention to be paid to violence that emphasises its obstinate, reversible, and ultimately experimental nature.

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## Glossary

3ID/3 <sup>rd</sup> ID	3 <sup>rd</sup> Infantry Division
ABCS	Army Battle Command System
ANT	Actor-Network Theory
AO	Area of Operations
Bde	Brigade
BCT	Brigade Combat Team
BFT/FBCB2	Blue Force Tracker/Force XXI Battle Command, Brigade and Below
BFV	Bradley Fighting Vehicle
C2	Command and Control
CENTCOM	Central Command
COIN	Counterinsurgency
COP	Common Operating Picture
CP	Command Post
CPA	Coalition Provisional Authority
CPOF	Command Post of the Future
CSS	Combat Support Services
DARPA	Defence Advanced Research Projects Agency
DTRAC	Defence Tracking, Reporting and Control System
FM	Field Manual
FOB	Forward Operating Base
GIS	Geographic Information Systems
GPS	Global Positioning System
ICT	Information and Communication Technology
IDF	Israeli Defence Force
IED	Improvised Explosive Device
ISR	Intelligence, Surveillance, and Reconnaissance
LOOs	Lines of Operation
MCS	Maneuver Control System
NCO	Non-Commissioned Officer
NCW	Network-Centric Warfare
OIF	Operation Iraqi Freedom
OFT	Office of Force Transformation
PLI	Position Location Identifier
RPG	Rocket Propelled Grenade
RMA	Revolution in Military Affairs
SIGACTs	Significant Activities
SITREP	Situation Report
STS	Science and Technology Studies
TOC	Tactical Operations Center
TOE	Table of Organization and Equipment
TTPs	Tactics, Techniques, and Procedures
UAV	Unmanned Aerial Vehicle
VO/IP	Voice over internet protocol

# INTRODUCTION

The recent adoption by the US military of the *battlespace* as the designated geographic location of violence illustrates more than the military's fixation with new and ever better terminology.<sup>1</sup> Rather, the advent of the *battlespace* (as opposed to the *battlefield* or the *theater of operations*) highlights an important shift in the way in which violence is conceived and enacted. In the words of the US Navy:

Revolutionary advances in the technologies of surveillance, communications, information processing, and weapon systems are increasing the pace and reach of warfare exponentially. *Future warfare will take place in an expanded battlespace, characterized by rapid, simultaneous, and violent actions across all dimensions – air, land, sea, undersea, space, time, and the electromagnetic spectrum.*<sup>2</sup>

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<sup>1</sup> For some early uses of the term, see, Director for Operational Plans and Joint Force Development, *Department of Defense Dictionary of Military and Associated Terms* (Washington, DC: Department of Defense, 2002); Chairman of the Joint Chiefs of Staff (CJCS), *Joint Vision 2010* (Washington, DC: Department of Defense, 1996).

<sup>2</sup> Department of the Navy, *Naval Doctrine Publication 6: Naval Command and Control* (Washington, DC: Department of Defense, 1995), 4 (emphasis added).

The spatial operation of violence – long dominated by the inside/outside dichotomies of state on state violence, emphasising boundaries, lines of conflict and so on – has been expanded through the figure of the battlespace to include the more fluid, event-ful and relational operation of the network.<sup>3</sup> In this, war is but one of many facets of (post-)modern society to be inflected with a discourse of networking, and in some ways it might seem that the spatial operation of violence straightforwardly reflects the ‘networked’ nature of the modern military. However, this thesis argues that it is not so much the advent of networks that has driven this alteration, but a complex adaptation of violence and space that defies simple description. In particular, this thesis argues that the altering of spatial operations of violence demonstrate the creative and experimental ability of violence to operate on its own terms, in ways that are not fully determined by either structure (including discourse) or agency. This provides both a challenge and an opportunity for current analyses of the contemporary security environment.

This thesis reads the altering spatial operation of violence through the micro-practices of the US military, particularly with regards to that paradigmatic post-postmodern conflict, Iraq. This thesis creates a ‘thick’ description of a key moment in the enactment of this contemporary battlespace, utilising observations made during fieldwork with the US military, as well as study of contemporary US doctrine and practice.

While drawing initial inspiration from the field of critical security studies, with its emphasis on challenging the way in which the concept of ‘security’ is formulated through discourse (asking important questions such as ‘What is being secured?’ and

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<sup>3</sup> Anderson provides a neat summary of the traditional logic of the spatial operation of violence when he argues that: “In considering warfare, it appears to be a truism that wars must almost always begin at borders.” Ewan W. Anderson, “Geopolitics: International Boundaries as Fighting Places,” in *Geopolitics: Geography and Strategy*, ed. Colin S. Gray and Geoffrey Sloan, 125-36 (London: Frank Cass, 1999), 134.

'What is being excluded?'), this thesis emphasises the exploration of battlespaces through the detailed sociological and anthropological observation often associated with material semiotics in Science and Technology Studies (STS).<sup>4</sup> This reflects a commitment to unpicking the 'grand narratives' of security through attending to the 'mess' of the materiality of contemporary battlespaces.<sup>5</sup> While 'critical security studies' in its many guises has raised important questions about the operation of *discursive* formations of security, power, and space in reinscribing violent relations of power, such work has left unanswered questions regarding the implications of the multiplicity, divergence, and mess of security *practices* that become apparent when work attends to the materiality and historical specificity of contemporary battlespaces.<sup>6</sup>

This thesis acts as a provocation to the field of critical security studies. By collecting a novel configuration of literature and fieldwork, and in particular, by intersecting two sets of literature (an often STS-inflected literature on productions of spatiality with the literature on the contemporary organisation of violence) with a carefully observed set of descriptions of current battlespaces, this thesis provides clues as to the operation of contemporary security agendas. Its most important contribution, therefore, is in opening alternative routes for thinking about the exploration of the altering spatial operation of violence – a phenomenon that has

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<sup>4</sup> For a sampling of critical security studies literature, see, David Campbell and Michael Dillon, ed., *The Political Subject of Violence* (Manchester: Manchester University Press, 1993); Keith Krause and Michael C. Williams, ed., *Critical Security Studies: Concepts and Cases* (London: UCL Press, 1997).

<sup>5</sup> On mess, see, John Law, *After Method: Mess in Social Science Research* (London: Routledge, 2004).

<sup>6</sup> For a sampling of diverse philosophical approaches to critical security studies that nonetheless share this discursive emphasis, see, Giorgio Agamben, *State of Exception* (Chicago: University of Chicago Press, 2005); Michael Dillon, "Global Security in the 21st Century: Circulation, Complexity and Contingency," in *International Security Programme/New Security Challenges Programme Briefing Paper 05/02*, 2-3 (London: Chatham House, 2005); David Campbell, *Writing Security: United States Foreign Policy and the Politics of Identity (Rev. Ed.)* (Minneapolis: University of Minnesota Press, 1998).

become compellingly apparent to both a specialist military audience and a general public fascinated by the dilemmas facing the US military in conflicts such as Iraq.

In light of its diverse origins, then, the key themes of this thesis represent points of convergence between the growing literature on new security agendas and the principles underlying material semiotics in STS – that is, a commitment to multiplicity, fluidity, and uncertainty. Indeed, one of the key findings of this thesis is that the concerns of STS (mess, multiplicity, and distributed agency) are being instrumentalised (more or less effectively) by the US military as it attempts to respond to a ‘new world order.’

In particular, three key themes emerge that represent this convergence. Firstly, there is the need to discard the notion of fixed subjectivity in the face of an adaptive enemy and circumstance (from the perspective of new security agendas), and in the face of a ‘real’ that is emergent, relational, and heterogeneous (from the perspective of STS).

Secondly, *the experimental* emerges as a primary mode of operation. Whether this is viewed from the perspective of the US military’s guiding lights in the Office of Force Transformation and the Joint Forces Command, or from STS arguments relating to the contingency and messiness of the processes by which we make knowledge, experimentation as a mode of operation is both more open to varying textures of ‘the real,’ and more capable of repressing that variety through the effective adaptation of force to different conditions.

Finally, this thesis is haunted by the obduracy of materiality. New security agendas may attempt to re-engineer the world in their image but, in practice, reality

constantly eludes attempts to control it. Grand narratives, coherent formations, explicable 'logics' all fade before the brute force of an alterable battlespace.

The rest of this chapter serves as an introduction to the field from which the general problematic of the spatial operation of US military violence has emerged. It situates the thesis both generally in the upheavals in international relations over the past two decades, and in the more specific concerns dominating the US military community over the same period. Without staking a position with respect to these debates (indeed, these debates are largely outside the sphere of this thesis), this introduction acts as a frame of reference for the thesis.

## **Reformulating the security problematic**

While this thesis addresses the specific configuration of the US military battlespace, particularly in Iraq, this battlespace is always/already embedded within the framework known as international relations. While international relations is seen as a theoretically evolved, academically rigorous discipline, security studies and its even more narrowly focused cousin, defence studies, have been seen as rather the poor relations in terms of theoretical complexity.<sup>7</sup> This leads to a distinct temptation to allow the tools of international relations to encompass the concerns of defence and security studies.

This thesis eschews that approach, and chooses instead the opposite path: by focussing narrowly on defence issues – that is, on specific (and at times quite technical) descriptions of the US military's battlespace – this thesis addresses the material existence of contemporary security agendas in a way sometimes ignored by

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<sup>7</sup> Keith Krause and Michael C. Williams, "Preface: Toward Critical Security Studies," in *Critical Security Studies: Cases and Concepts*, ed. Keith Krause and Michael C. Williams, vii-xxi (London: UCL Press, 1997), vii-viii.

the more abstract formulations of the international relations community. As is readily apparent, the relationship between broader strategic (international relations) agendas and narrower defence and security agendas is not simply one of cause and effect, but is actually a recursive one: the military operates in an environment dictated by the strategic concerns of their political paymasters, but their operation (and their limitations) also constitute the security environment in which they find themselves. Hence an exploration of the realm of defence and security studies on its own, more limited, terms holds promise for illuminating broader agendas.

This is not to say that this thesis holds firmly to boundaries between disciplines: in fact it is quite the opposite, with the thesis drawing extensively from sociology, anthropology, cultural studies, geography, and political philosophy. Rather, this thesis seeks to maintain the micro emphasis of defence and security studies, without subordinating it to any one of the persisting 'grand narratives' of international relations.

### International Relations and the post Cold War world

Nonetheless, it is useful to understand the context from which this thesis has emerged. Fortunately, the field of international relations, despite loud proclamations of the end of the era of grand narratives, has its own orthodoxy, one which makes it simpler to situate events in world politics over the last 20 years.<sup>8</sup> Indeed, it is common for theses to begin with a recitation of these orthodox truths. The recitation goes something like that which follows.

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<sup>8</sup> For an early statement on the end of 'grand narratives,' see, John Lewis Gaddis, "International Relations Theory and the End of the Cold War," *International Security* 17, no. 3 (1993).

Firstly, there is a need to genuflect at the altar of the strategic certainties provided by the Cold War. Accordingly, during the Cold War, international relations were simple to describe (them versus us), and the accompanying military realities were also simple (containment, deterrence, cold wars with hot spots of variable strategic importance). The second phase of the recent history of international relations begins with the end of the Cold War, which heralded the collapse of these strategic certainties and foretold, in Robert Kaplan's evocative and influential term, the "coming anarchy."<sup>9</sup> The interneceine wars of the former Yugoslavia, the genocide in Rwanda, the countless civil ('tribal') wars under-way in countries throughout the African continent, all bore out the supposition that there was a (rather unpleasant) transition taking place in the world order. Agendas long suppressed by the Cold War, such as the aspirations of an emerging global civil society, sprung into life in this decade of activity, a decade whose strategic significance is perhaps best expressed in the all-too familiar terms of a tale "full of sound and fury, /Signifying nothing."<sup>10</sup> This all changed, apparently, with the collapse of the Twin Towers on September 11, 2001, and the beginning of the United States' Global War on Terror, recently renamed the "long war."<sup>11</sup> Now international relations as a discipline is convinced that we are witnessing the beginnings of a new international ordering, although its contours are unclear and its meaning is contested.<sup>12</sup>

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<sup>9</sup> Robert D. Kaplan, "The Coming Anarchy," *The Atlantic Monthly* February (1994), <http://www.theatlantic.com/doc/prem/199402/anarchy>.

<sup>10</sup> William Shakespeare, *Macbeth*, Act 5, scene 5, lines 26-27.

<sup>11</sup> Department of Defense, *Quadrennial Defense Review Report* (Washington, DC: Department of Defense, 2006), v.

<sup>12</sup> However, the resurgence of the concept of empire has done much to fill in those contours. Michael Hardt and Antonio Negri, *Empire* (Cambridge, MA: Harvard University Press, 2000). See also, Derek Gregory, *The Colonial Present* (Malden, MA: Blackwell Publishing, 2004); Julian Reid, "War, Liberalism, and Modernity: The Biopolitical Provocations of 'Empire,'" *Cambridge Review of International Affairs* 17, no. 1 (2004).

This formula, trotted out so often as to have achieved a somewhat mythic status, is a useful shorthand for indicating that in the realm of international relations, and, in particular, in the realm of US defence and security, *something* has changed. From what, and to what, we are less certain.

The insight that change has taken place in the strategic environment has been embraced with enthusiasm by commentators in a variety of areas: from strategic analysts looking to influence the direction of a seemingly rudderless US foreign policy;<sup>13</sup> to analysts concerned with the future shape and direction of the American defence industry;<sup>14</sup> to a new generation of liberal peace theorists seeking to reformulate the possibilities of global peace in the framework of a global civil society;<sup>15</sup> to critical theorists, keen as ever to expose the new generations of power at work inside the seemingly neutral reformulation of the security problematic.<sup>16</sup>

While these debates refer to disparate concerns, there is nonetheless a common thread in these commentaries that identifies a kind of 'holy trinity' of themes providing impetus to the transformation of international relations, and by association, defence and security. Firstly, commentators emphasise the importance of *globalisation* in altering the security dimensions of conflicts.<sup>17</sup> In the words of Dalby:

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<sup>13</sup> Thomas P.M. Barnett, *The Pentagon's New Map: War and Peace in the Twenty-First Century* (New York, NY: Berkley Publishing Group, 2004); Colin S. Gray, *The Sheriff: America's Defense of the New World Order* (Lexington, KY: The University Press of Kentucky, 2004).

<sup>14</sup> Ann R. Markusen and Sean S. Costigan, ed., *A Defense Industry for the 21st Century* (New York, NY: Council on Foreign Relations Press, 1999).

<sup>15</sup> Mary Kaldor, *New and Old Wars: Organized Violence in a Global Era* (Oxford: Polity Press, 1999).

<sup>16</sup> Gregory, *The Colonial Present*; Dillon, "Global Security in the 21st Century."

<sup>17</sup> For a diverse range of this literature, see, Yee-Kuang Heng, *War as Risk Management: Strategy and Conflict in an Age of Globalised Risks* (Abingdon: Routledge, 2006); Barnett, *The Pentagon's New Map*; Mark Duffield, *Global Governance and the New Wars: The Merging of Development and Security* (London: Zed Books, 2001); Michael Dillon and Julian Reid, "Global Liberal Governance: Biopolitics, Security and War," *Millennium: Journal of International Studies* 30, no. 1 (2001) .

The reconsideration of boundaries in terms of movement, territory, and identity is an important locus of discussion for attempts to think differently about world politics, if not international relations.<sup>18</sup>

The study of globalisation is often inflected by an emerging literature that gained prominence in the 1990s, the study of complexity, and especially the study of networks as complex systems. In the words of Annemarie Mol and John Law, complexity is present:

... if things relate but don't add up, if events occur but not within the processes of linear time, and if phenomena share a space but cannot be mapped in terms of a single set of three-dimensional coordinates.<sup>19</sup>

Globalisation, read in this light, can be seen as a complex phenomenon, by which the “network society,” famously identified by Manuel Castells, behaves with the emergent properties of complex adaptive systems made familiar by the study of biological systems.<sup>20</sup>

Secondly, commentators note an alteration in the *nature of warfare*, or more accurately in the kinds of wars gaining strategic importance. Small (low-intensity) wars may always have been a feature of human existence, but the seeming end of the age of ‘great power’ conflict has seen a concomitant increase in the importance accorded to small-scale (civil) wars, terrorist actions, asymmetric warfare and the threatening behaviours of rogue states.<sup>21</sup> Indeed, the very concept of security has been expanded by some authors to include such issues as resource scarcity,

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<sup>18</sup> Simon Dalby, "Political Space: Autonomy, Liberalism and Empire," *Alternatives* 30, no. 4 (2005): 419.

<sup>19</sup> Annemarie Mol and John Law, "Complexities: An Introduction," in *Complexities: Social Studies of Knowledge Practices*, ed. Annemarie Mol and John Law, 1-22 (Durham: Duke University Press, 2002), 1.

<sup>20</sup> Manuel Castells, *The Rise of the Network Society* (Oxford: Blackwell Publishers, 1996). See also, Michael Dillon, "Network Society, Network-Centric Warfare and the State of Emergency," *Theory, Culture and Society* 19, no. 4 (2002).

<sup>21</sup> Department of Defense, *QDR 2006*.

overpopulation, environmental degradation, and the hotly contested topic of 'human security'.<sup>22</sup>

Thirdly, and finally, commentators note that the *method of making war* has shifted, particularly in industrialised nations, with the increasing use of sophisticated technologies and associated doctrinal changes. This is in turn associated with the rise in asymmetric challenges. The use of information and communication technologies (ICTs) within the military, and the notable ability of industrialised nations to 'sanitise' war through precision air strikes and careful management of media coverage, has led to sustained criticism of the nature of contemporary warfare, including Jean Baudrillard's famous claim that the Gulf War "did not take place."<sup>23</sup>

These themes are strongly correlated with the changes observed by international relations' younger siblings in the defence and security studies community, although the military community's response to changing world events, particularly during the 1990s, had a markedly different emphasis.

### Defence and security studies: a Revolution in Military Affairs?

If the chaos of the 1990s was reflected in the failure of international relations to come to terms with the conflicts it faced (or, more accurately, resulted in a cacophony of approaches that replaced each other in quick succession), then for the defence policy community there was a more sustained focus.<sup>24</sup> Particularly in the United States, the defence policy community responded by obsessing over the *form* the

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<sup>22</sup> See, R.B.J. Walker, "The Subject of Security," in *Critical Security Studies: Concepts and Cases*, ed. Keith Krause, and Michael C. Williams, 61-82 (London: UCL Press, 1997).

<sup>23</sup> Jean Baudrillard, *The Gulf War Did Not Take Place* (Bloomington, IN: Indiana University Press, 1995). See also, Paul Virilio, *Desert Screen: War at the Speed of Light* (London: Continuum, 1991).

<sup>24</sup> Colin McInnes, "A Different Kind of War? September 11 and the United States' Afghan War," *Review of International Studies* 29, no. 2 (2003): 165.

military would take, without addressing the *substance* of what they would be fighting – that is, they concerned themselves with *how* they would fight, not *who*.<sup>25</sup>

Specifically, the 1990s was the decade of the Revolution in Military Affairs (RMA), a term that according to one leading author at one time carried such cachet as to virtually guarantee the success of any project tied to it.<sup>26</sup> While the RMA is a generic concept that refers to moments in history at which “a radical change in the character or conduct of war” is observable, in the 1990s the RMA concept became inextricably linked to the expected transformative impacts of information and communications technologies on the nature and actions of the militaries of the industrialised world.<sup>27</sup> Developed during the 1980s when the Soviet military apparatus feared being outstripped by its smaller but more technologically advanced adversary, the concept gained currency in the US following the overwhelming supremacy displayed by US forces in the Gulf War of 1991.<sup>28</sup>

As noted insightfully by Theodor Galdi in his report on the RMA for the US Congress, the RMA concept actually houses two divergent schools of thought. The first operates at a strategic level, and sees the altering political, social and economic environment as creating a “need for completely different types and organizations for the application of military force in the future.”<sup>29</sup> The emphasis here is on the fracturing impact of globalisation on the nation state, the altering nature of the

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<sup>25</sup> Frederick W. Kagan, *Finding the Target: The Transformation of American Military Policy* (New York, NY: Encounter Books, 2006).

<sup>26</sup> Colin S. Gray, *Strategy for Chaos: Revolutions in Military Affairs and the Evidence of History* (London: Frank Cass, 2002), 1.

<sup>27</sup> Gray, *Strategy for Chaos*, 4.

<sup>28</sup> Paul Hirst, *Space and Power: Politics, War and Architecture* (Cambridge: Polity Press, 2005), 139.

<sup>29</sup> Theodor W. Galdi, “Revolution in Military Affairs? Competing Concepts, Organizational Responses, Outstanding Issues” (Congressional Research Service Reports, 1995), <http://www.fas.org/man/crs/95-1170.htm>.

conflicts in which the US is likely to find itself, and the changing nature of the organisation required to respond to this (particularly in terms of the need for smaller, more flexible, and more rapidly deployable units). In fact, this school of thought reflects rather accurately, if on a smaller scale, the larger concerns of the international relations community at the time, although it was couched in a 'high-tech' language that was heavily influenced by network theories from the computer and physical sciences. The election of the Bush Administration and, in particular, the ascent of Donald Rumsfeld to the post of Secretary of Defense saw the incorporation of this concept of the RMA into mainstream US defence thinking. In particular, the Quadrennial Defense Review 2001, published a few weeks after the 9/11 attacks (although researched and written in the previous year) emphasised the lack of strategic certainty in the post Cold War world, and the need to manage risks created by the networked nature of contemporary US society.<sup>30</sup>

The second conceptualisation of the RMA is more narrowly focused on the impact of networking technologies on the US military's operating techniques (that is, on the operational and tactical rather than strategic level), and views the organisation as a 'system of systems'.<sup>31</sup> The technologies of precision strike, command and control (C2) networking, and enhanced intelligence, surveillance and reconnaissance (ISR), are all said to have potentially revolutionary impacts on the operation of the US military, acting in concert to create a networked force that appears capable of almost anything. Merging well with the complexity Zeitgeist of the 1990s, theorists from influential military colleges and think tanks such as the RAND Corporation were able to utilise the image of the military as a 'system of systems' to make such startling (and slightly bemusing) predictions as:

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<sup>30</sup> Department of Defense, *Quadrennial Defense Review Report* (Washington, DC: Department of Defense, 2001).

<sup>31</sup> Galdi, "Revolution in Military Affairs?".

The timelessness of Clausewitz will inevitably be revitalized by the incorporation of post-Newtonian scientific terminology, replacing that of the prevailing science of Clausewitz's own era – the branch of physics known as statics. It will be more biological. 'Centers of gravity,' 'friction,' and 'mass' will give way to nonlinear concepts, including those rooted in thermodynamics. The commanders of tomorrow will wrestle with 'entropy' and 'phase states,' while grasping 'periodic and strange attractors' as they search for 'fractals' and 'emergence.'<sup>32</sup>

From these early flights of rhetoric, the RMA eventually came to acquire a doctrinal (and practical) mode of expression in the figure of Network-Centric Warfare (NCW). The following, drawn from a seminal article by influential NCW proponents Vice Admiral Arthur Cebrowski and John Gartska, highlights the discourse's origins in complexity theory, as well as its dependence on technological advances in the field of ICTs:

Network-centric warfare and all of its associated revolutions in military affairs grow out of and draw their power from the fundamental changes in American society. These changes have been dominated by the co-evolution of economics, information technology, and business processes and organizations, and they are linked by three themes:

- The shift in focus from the platform to the network
- The shift from viewing actors as independent to viewing them as part of a continuously adapting ecosystem

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<sup>32</sup> Thomas Czerwinski, "Command and Control at the Crossroads," *Parameters* 26, no. 3 (1996), <http://carlisle-www.army.mil/usawc/Parameters/96autumn/czerwinski.htm>. See also, David S. Alberts, and Thomas J. Czerwinski, ed., *Complexity, Global Politics, and National Security* (Washington, DC: National Defense University, 1997); David S. Alberts et al., *Understanding Information Age Warfare* (Washington, DC: Department of Defense, Command and Control Research Program, 2001); John Arquilla and David Ronfeldt, ed., *In Athena's Camp: Preparing for Conflict in the Information Age* (Santa Monica, CA: RAND Corporation, 1997).

- The importance of making strategic choices to adapt or even survive in such changing ecosystems<sup>33</sup>

Since this article appeared, much work has gone into articulating a vision of what NCW might look like. One recent perspective argued that:

Network-centric warfare (NCW) is characterized by the ability of geographically dispersed forces to attain a high level of shared battlespace awareness that is exploited to achieve strategic, operational, and tactical objectives in accordance with the commander's intent.<sup>34</sup>

The emphasis, then, is on creating a force that is able to operate in *geographically non-contiguous battlespaces*, while maintaining a *synchronicity of effort* through the extensive networking enabled by ICTs.

In the years following 9/11, while NCW has gone on to be rebranded (as Network-Centric Operations), it has also been subsumed under a much broader agenda known as *force transformation*. The agenda of force transformation, given irresistible force by Secretary Rumsfeld, has been promoted vigorously from inside the Pentagon; by quasi-departmental organisations such as the Office of Force Transformation (OFT), established only a few weeks after 9/11 (and only recently disestablished as part of an attempt to 'mainstream' transformation); and by military organisations, such as the newly restructured Joint Forces Command (JFCOM), whose mission since late 2002

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<sup>33</sup> Arthur K. Cebrowski and John J. Gartska, "Network-Centric Warfare: Its Origin and Future," *Proceedings of the U.S. Naval Institute* January (1998), <http://www.usni.org/Proceedings/Articles98/PROCebrowski.htm>.

<sup>34</sup> Office of Force Transformation (OFT), *Elements of Defense Transformation* (Washington, DC: Office of Secretary of Defense, 2004), 8.

has been overseeing the transformation of the US armed services, particularly through concept development and experimentation.<sup>35</sup>

Force transformation is a remarkably broad agenda, covering the transformation of the Department of Defense's way of doing business (including military support functions such as logistics and procurement); the transformation of the military's way of working with others (such as government agencies, non-governmental organisations, international organisations, and military allies); as well as the transformation of the way in which the military fights.<sup>36</sup> This final transformation includes recruitment, training, doctrinal innovations, and organisational changes, such as restructuring the US Army into a modular force with Brigades detached from Divisions through the placement of key auxiliary functions within their structure, enhancing their self-sufficiency and rapid deployability.<sup>37</sup>

In addition to providing an extensive agenda of reform for the immediate future, transformation is a process with its eye toward long-term strategy. In the words of the OFT, "while we might point to a beginning of transformation, we cannot foresee the end."<sup>38</sup> Indeed, the purpose of transformation is to maintain adaptability and flexibility in a security environment that is considered near impossible to predict. Frederick Kagan argues that it is precisely this non-committal stance toward the composition of the future that led to the failure of the US military to be prepared for the war in Iraq.<sup>39</sup> Kagan is not alone in linking transformation to current US military dilemmas, with critics pointing to Secretary Rumsfeld's desire for a personnel-light

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<sup>35</sup> Josh Rogin, "DoD Decides to Close Office of Force Transformation" (Federal Computer Week, 2006), [http://www.oft.osd.mil/library/library\\_files/article\\_522\\_FCW%20Article%20on%20OFT%20Closing.pdf](http://www.oft.osd.mil/library/library_files/article_522_FCW%20Article%20on%20OFT%20Closing.pdf).

<sup>36</sup> Office of Force Transformation (OFT), *Elements of Defense Transformation*, 3.

<sup>37</sup> See, United States Army, "The Army's Modular Forces" (2005), <http://www.army.mil/modularforces>.

<sup>38</sup> Office of Force Transformation (OFT), *Elements of Defense Transformation*, 1.

<sup>39</sup> Kagan, *Finding the Target*.

invasion of Iraq as both a reflection of his adherence to the transformation agenda and a leading cause of the US military's current problems there.<sup>40</sup> Indeed, the transformation agenda has been scaled back in light of the heavy burden of maintaining the current deployments in Iraq and Afghanistan. In particular, the second Quadrennial Defense Review has been viewed as a retreat on the part of the Secretary of Defense, and his subsequent removal was viewed as nothing short of the death knell of transformation in some quarters.<sup>41</sup> Nonetheless, the feeling remains among policy elites in Washington, that "transformation is the only game in town."<sup>42</sup> Further, this thesis argues that while the present 'transformational' US military (or, rather, hybridised conventional-cum-transformational military) may not be optimised for counterinsurgency operations, it is oriented to the 'real' in a more nuanced and concrete way than imagined by critics such as Kagan.

### Critical security studies

While the fields of international relations and defence and security studies rushed to cope with the collapse of a certain world order, critical security studies took advantage of the opportunity to question old certainties in the field of security studies that were looking particularly wan in light of contemporary events.

Although critical security studies is hardly a homogenous field (in fact, it is hardly a continuous field of study at all), its key insight has been in identifying the

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<sup>40</sup> See, Michael Gordon and Bernard Trainor, *Cobra II: The Inside Story of the Invasion and Occupation of Iraq* (London: Atlantic Books, 2006), Chapters 1-6.

<sup>41</sup> See, Department of Defense, *QDR 2006*; David S. Cloud, "Pentagon Review Calls for No Big Changes," *New York Times*, February 2, 2006; Fred Kaplan, "Rumsfeld Surrenders: The QDR Dashes His Dreams of Military Transformation," *Slate* (2006), <http://www.slate.com/id/2135343/>.

<sup>42</sup> Cdr. Steve Kenny, in discussion with the author, 2005.

possibilities inherent in reproblematising the concept of 'security'.<sup>43</sup> Authors in this field have drawn on the themes outlined above and deployed them reflexively: that is, they have asked, 'What is enabled by viewing security in this way?' and, importantly, 'What is disabled?'.

Mark Duffield, for example, examines the reconceptualisation of the strategic environment by the industrialised nations during the 1990s. He argues that these nations came to discard, in parts, the traditional image of states as discrete, self-contained units, instead viewing states as embedded in a (globalised) network of social, political, and economic interactions.<sup>44</sup> According to Duffield, this led to the inextricable linkage of the social and economic development agendas of the international aid community with the security agendas of their political paymasters. In a globalised world, where security is seen as a property of networks, achieving security in one place must be achieved through pacifying the dangers present in other places, and this pacification is best achieved through a development agenda that follows liberal capitalist modes of operation. Thus Duffield argues that:

... there is a noticeable convergence between the notions of development and security. Through a circular form of reinforcement and mutuality, achieving one is now regarded as essential for security in the other. Development is ultimately impossible without stability and, at the same time, security is not sustainable without development.<sup>45</sup>

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<sup>43</sup> Duffield, *Global Governance and the New Wars*; David Campbell and Michael Dillon, "The End of Philosophy and the End of International Relations," in *The Political Subject of Violence*, ed. David Campbell and Michael Dillon, 1-47 (Manchester: Manchester University Press, 1993); James Der Derian, "The Value of Security: Hobbes, Marx, Nietzsche, and Baudrillard," in *The Political Subject of Violence*, ed. David Campbell and Michael Dillon, 94-113 (Manchester: Manchester University Press, 1993); Walker, "The Subject of Security"; Simon Dalby, "Contesting an Essential Concept: Reading the Dilemmas in Contemporary Security Discourse," in *Critical Security Studies: Cases and Concepts*, ed. Keith Krause and Michael C. Williams, 3-32 (London: UCL Press, 1997).

<sup>44</sup> Duffield, *Global Governance and the New Wars*, 2-7, 13-14.

<sup>45</sup> Duffield, *Global Governance and the New Wars*, 16.

Here, Duffield joins an otherwise disparate group of authors in asking what old and new conceptualisations of security enable (empower) people, states and institutions to do.<sup>46</sup>

The key insight of critical security studies is that, in David Campbell's words, "danger is not an objective condition," and that, following Michel Foucault, any knowledge system surrounding the specification of such a condition is implicated in the creation of relationships of power.<sup>47</sup> As this understanding of the relationship between power and knowledge acts as a foundation for much of that which follows, it is explored here in more detail.

According to Foucault, power is not merely juridical, repressive, or exercised solely through the State. Rather, power is an action upon the action of others. He therefore sees power as a potential in all relationships, a fact acknowledged in his methodological injunction to talk not of 'power' in the abstract, but rather of 'power relations.'<sup>48</sup>

This view has a necessary result for the analysis of knowledge and the production of truth in our society: truth, and its correlate, knowledge, are always/already implicated in relationships of power. As Foucault argues:

... truth isn't outside power, or lacking power; ... truth isn't the reward of free spirits, the child of protracted solitude, nor the privilege of those who have succeeded in liberating themselves. Truth is

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<sup>46</sup> One of the earliest, and certainly most influential, pieces of work in this field, for example, explored the way in which discourses of security during the Cold War were used to establish a certain form of the 'American' identity, in ways that were often quite independent of the Soviet threat. Campbell, *Writing Security*.

<sup>47</sup> Campbell, *Writing Security*, 1.

<sup>48</sup> "The Subject and Power," in Michel Foucault, *Power: Essential Works of Foucault, 1954-1984, Volume 3* (London: Penguin, 2002), 336-39.

a thing of this world: it is produced only by virtue of multiple forms of constraint. And it induces regular effects of power.<sup>49</sup>

For example, he argues that sexuality is only constituted as an area of inquiry because relations of power have established it as a possible object, while conversely power is only able to ‘take’ sexuality as a target because knowledge is capable of investing it in people – capable of finding it, identifying it, measuring it.<sup>50</sup> This mutually reinforcing connection is known as ‘power/knowledge.’ Power/knowledge orders the world in its own image, through creating power relations and systems of knowledge that classify and differentiate, that set out the limits of possibility for the existence of things.<sup>51</sup>

Similarly, security is a field of knowledge whose exercise is involved in extensive arrays of power relations – including relationships between states, between the state and the individual, and relationships between individuals. While it may seem strange to identify a large-scale phenomenon such as a security with the identity of the individual, it is important to remember that security rests on basic assumptions about human behaviour – assumptions that are able to be considered ‘truth’ as a result of the recursive interaction of power/knowledge. For example, Campbell and Dillon point to the placement of the ‘rational’ political subject at the heart of international relations theory, arguing that this version of subjectivity has created a situation in which it is very difficult for other (more inclusive, less violent) versions of political subjectivity to be exercised.<sup>52</sup>

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<sup>49</sup> “Truth and Power,” in Michel Foucault, *Power/Knowledge: Selected Interviews and Other Writings 1972-1977* (New York: Pantheon Press, 1980), 131.

<sup>50</sup> Michel Foucault, *The Will to Knowledge: The History of Sexuality, Volume 1* (London: Penguin Books, 1998), 98.

<sup>51</sup> Michel Foucault, *The Order of Things* (London: Routledge Classics, 2002).

<sup>52</sup> Campbell et al., “The End of Philosophy,” 1-5, 41-43. Witness Hobbes’s origin myth in which rational men join together to ensure security within the anarchic state of nature for a foundational moment of the rational man in international relations: see, Der Derian, “The Value of Security,” 98-99.

Thus for critical security studies, the question has not been 'How has the objective reality of international relations changed?' but 'How has the reformulation of security agendas altered relations of power?'. The advent of NCW, as well as the so-called neo-conservative agenda of the Bush administration, has led to a series of such discursive explorations of the construction of security.<sup>53</sup> One author, for example, describes the construction of contemporary security agendas in terms of the 'New Normal':

The New Normal is a term used post-9/11 to signify a world destabilized by terrorism, economic fluctuations, and contagion prevention (notably SARS and Avian Flu). Significantly, the New Normal means that stability is no longer equivalent to normality. At best, everyday life is a managed *instability* .... The emergence of permanent and infinite war, with its unspecified enemy and immanentization of terror into everyday life, is constitutive of this New Normal.<sup>54</sup>

While this thesis focuses less on the kinds of discursive analysis common in critical security studies, at its base it draws its essential provocation from this kind of question.

## A map of the work

The remainder of this thesis is divided into five chapters. The first two elaborate a conceptual 'toolbox' that enables the exploration of the US battlespace in the subsequent three chapters.

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<sup>53</sup> See, for example, Dillon, "NCW and the State of Emergency"; James Hay and Mark Andrejevic, "Introduction: Toward an Analytic of Governmental Experiments in these Times: Homeland Security as the New Social Security," *Cultural Studies* 20, no. 4-5 (2006).

<sup>54</sup> Jack Bratich, "Public Secrecy and Immanent Security: A Strategic Analysis," *Cultural Studies* 20, no. 4-5 (2006): 493 (emphasis original).

## The spatial operation of violence

The first chapter examines how, while the fields of international relations and defence studies are comfortable asserting that violence has changed, they are less clear about the means by which this change has come about. Rejecting traditional agent-centred or structural accounts of violence, this chapter makes it possible to think about violence as a force whose conditions of possibility, whose ordering practices, whose affinities and 'passions' are all altering and alterable. That is, this chapter makes the possible the study of violence as a force in its own transformation by opening out the study of violence's spatiality (particularly, the study of the battlespace). Utilising the work of Michel Foucault, Henri Lefebvre, and Gilles Deleuze, this chapter outlines a particular understanding of spatiality, one that provides a useful mode of analysis for understanding violence as a creative and differentiating force.

Michel Foucault contributes the idea of spatial orderings, adding spatiality to the power/knowledge dyad and prompting analysis of the way in which spatiality helps establish the conditions of possibility for the exercise of violence. On the one hand, however, while Foucault's work establishes the spatial logic of violence as an area of inquiry, it does not provide scope for examining the mechanisms by which this logic alters. On the other hand, Henri Lefebvre's concept of the spatio-temporal introduces duration as a means by which qualitative difference can emerge. Lefebvre's rhythmanalysis, as he terms it, allows violence to be analysed as a force whose conditions of possibility are found in the vicissitudes of both space and time. Lefebvre, however, remains wedded to a human-centred analysis, a result of his ambiguous but defining relationship with Marxism. This undermines his ability to explore the operation of violence as a force independent of (human or other) agency.

It is Gilles Deleuze who comes closest to exploring the operation of violence in a manner that is undetermined by agency or the grand narratives of structure. Deleuze and Guattari's elaboration of the concept of the assemblage provides a method for analysing the openness – the altering and experimental quality – of US military violence. Whereas Foucault's analysis is of a more or less coherent spatial logic of violence, Deleuze's formulation is of the more playful and contingent spatial operation of violence.

### A praxiography of the battlespace

The second chapter both extends and limits the implications of the previous chapter's analysis. It extends the first chapter by articulating a series of qualities that define an ontology being described (at least partially) by each of the three authors. This account of an 'alternative real' undermines traditional notions of the real as 'out there,' independent from us, singular and definite. It replaces it instead with a real (and its accompanying orderings, subjectivities, and forms of agency) that emerges piecemeal, through practice. This account also argues that matter and meaning are inextricably intertwined, leading to the mess, multiplicity, and resistance found in the intransigent operation of the material world, and emphasises the importance of temporality – the duration of praxis – as the 'location' in which change emerges.

However, this chapter limits the implications of the first chapter by providing a methodology appropriate to this alternative real, one that dramatically reduces the scale and scope of academic ambitions to describe and understand the real. If the world exists in multiple textures, with interfering, alterable, and messy conditions of possibility, then exploring that world will always be limited to the study of the real *here, now, in this moment.*

In establishing praxiographic study – that is, the study of *praxis* or practice – as the mode of operation for this thesis, this chapter also establishes the ethical imperatives informing this thesis. That is, this chapter seeks, if tentatively, to make a case for the importance of undertaking this kind of study, alongside more traditional kinds of studies of contemporary US battlespaces.

#### Interlude: the (not-so-)distant roar of battle

This interlude prepares the reader for the movement from the polite world of ontological discussion to the unruly world of the violent streets of Baghdad. It situates the US military's engagement in Baghdad in terms of its own competing conceptual (discursive) constructions of Network-Centric Warfare and urban warfare, before dragging the reader to the fight as it is being waged on the streets, where concepts are mired and hybridised in the shifting practices of violence.

#### CPOF: commanding the future

The third chapter creates a 'thick' description of a moment in a US battlespace. That moment is the use of a particular command and control technology, the Command Post of the Future (CPOF), by the 1<sup>st</sup> Cavalry Division in Baghdad during Operation Iraqi Freedom Phase II (2004-2005). This description is based on extensive interviews with soldiers from throughout the Cavalry, that took place in July 2005, six months after the Cavalry's return from Iraq.

In particular, this chapter establishes an understanding of the operation of CPOF that undermines attempts to portray CPOF as a tool that 'digitises' the battlespace into a clean and singular picture. Rather, it demonstrates that CPOF was implicated in enacting multiple battlespaces, each ordering violence along its own particular configuration of power/knowledge/space.

### Addressing multiplicity in the event-ful city

While Law submits that an insistence on (ontological) singularity is productive, the fourth chapter suggests that 1<sup>st</sup> Cavalry's engagement with (ontological) multiplicity in the form of multiple battlespaces in CPOF was equally productive.<sup>55</sup> It explores how CPOF was used to tame, correlate, and ultimately *mobilise* the multiplicity of the battlespace to enable it to fight its war in a novel and unique way. In particular, the assemblage of CPOF-1<sup>st</sup> Cavalry-Baghdad assembled (mobilised) the CPOF user according to an affective response to the event (hence, the event-ful city). This chapter argues that the 'scanning' of the battlespace multiple engendered by the CPOF assemblage enabled a mode of ordering violence that was new in US military engagements (albeit a mode that was constantly interrupted by the complicated, messy, and noncoherent spatiality of the city of Baghdad).

### Being present in Baghdad

The fifth and final chapter explores a different texture of 1<sup>st</sup> Cavalry's engagement in Baghdad. Instead of exploring its interaction with 'the battlespace' as a general plane of activity, it explores the varying ways in which units were enacted as points of presence (and absence) through CPOF. This chapter argues that, while CPOF enacts a unit as a point of mobile presence, that enaction (that presence) relies on a series of excluded relations. This chapter explores the way in which these relations can return to interfere with the enaction of the mobile agency so sought after by the US military. Significantly, this chapter establishes the difficulty of controlling agency, even when operating in a way that attempts to take advantage of the contours of the alternative real outlined in Chapter Two.

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<sup>55</sup> See, Law, *After Method*, 66.

## Conclusion

This thesis concludes by returning to the themes articulated in this introduction, which establish a point of departure for more nuanced study of US military behaviour in the future. In particular, the conclusion draws together the various ways in which the objects of study in these chapters variously engage in the rejection of the fixed subjectivity, embrace experimentalism as a mode of operation, and are stymied by the obdurate operation of materiality. It concludes by articulating the need for more of this kind of tentative, halting study of the US military, and not less, rejecting arguments that such approaches are quietist and/or defeatist.

# CHAPTER ONE

## The spatial operation of violence

Violence itself both reflects and accelerates the experience of society as an incomplete project, as something to be made.<sup>56</sup>

### IN-COMING: Preliminary thoughts on organising violence

The first few rounds land within fifteen feet of the fighting hole Johnny Rotten and I are digging. Johnny is the first to yell *Incoming*, and we crouch in our half-dug hole.

The rounds explode beautifully, and the desert opens like a flower, a flower of sand. As the rounds impact, they make a sound of exhalation, as though air is being forced out of the earth. Sand from the explosion rains into our hole. Because we'd been deep in the labor of digging our fighting hole, and the chance of an enemy attack seemed remote and even impossible, our flak jackets, helmets, weapons, and gas masks are stacked in an orderly fashion a few feet behind our position. More rounds land nearby, and someone yells *Gas! Gas! Gas!* – this being what you're supposed to yell when you have good reason to believe a chemical or biological attack is in progress. Now Johnny

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<sup>56</sup> Allen Feldman, *Formations of Violence: The Narrative of the Body and Political Terror in Northern Ireland* (Chicago: University of Chicago Press, 1991), 5.

yells *Fuck*, what you're supposed to yell when rounds are incoming and someone yells *Gas! Gas!* *Gas!* and your gas mask is a few feet behind you, out of reach. I too yell *Fuck*. Then I crawl on my belly to our gear, and as delicately as possible, I throw it all to Johnny and I crawl backward to the safety of our half-hole, and we don and clear our gas masks . . .

Either because the CP has a chemical detector, or someone simply feels that no chemicals have been delivered via the incoming artillery, the all clear is called, and we remove our gas masks. The artillery assault ends.<sup>57</sup>

2 Royal Tank Regiment (RTR) battlegroup used the imagery [provided by Blue Force Tracker] extensively in order [to] analyze and plan routes for maneuver for the Challenger 2 main battle tank. The method in which this was conducted is that commanders could survey an area of interest at small scale and then focus on specific areas at far greater scale. Thereafter, imagery was used to identify likely obstacles such as berms and ditches and these could even be measured to define what impact they were likely to have on the movement of a squadron of tanks. The ability to undertake this type of planning, particularly, for urban and suburban areas meant that maneuver could be undertaken more rapidly, knowing where the likely impediments [were].<sup>58</sup>

In military language, the letter 'X' often indicates a technology, yet to be named – it signifies what is called a 'test-bed,' a place for new equipment to be tried, then advanced or retired. Fighter jets and robotic crafts are often first given X designations before they are fully developed. Some projects, like Boeing's X-45, now called the Unmanned Combat Aerial Vehicle, get battlefield trials before they are named. [War X] points at three issues: that humans have been using technology ... both to save and extend themselves. ... When humans connect to a gun that magnifies their vision, allows them to see, sight, and shoot in the dark, over walls and around corners, they have extended their capabilities: What has been the cost of that extension? As well, X designates a generic human creature who can fit into any machinery and represents the standardization of life for war. The final reason for the X is that so much of the technology I discuss is experimental. There are suits of

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<sup>57</sup> Anthony Swofford, *Jarhead: A Soldier's Story of Modern War* (London: Scribner, 2003), 189-90.

<sup>58</sup> Office of Force Transformation (OFT), *A Network-Centric Operation Case Study: US/UK Coalition Combat Operations During Operation Iraqi Freedom* (Washington, DC: Office of Secretary of Defense, 2005), 6-10.

powered armour, robotic tanks, rotorcraft that can outdo all previous helicopters for agility and power, uninhabited vehicles in the air, underwater, on the ground: all of these create an environment for themselves.<sup>59</sup>

Above are three disparate accounts of the organisation of violence in the ‘postmodern’ battlespace, particularly that of Iraq.<sup>60</sup> There is difficulty in matching such accounts to each other, but opportunity as well. For these accounts, individually and taken together, represent something about the nature of US interventions in Iraq that is integral to the subject matter of this thesis: they illustrate the extent to which Iraq is a ‘testing ground’ for US military behaviours. They illustrate the uncertainty – and the innovation – of the US project in Iraq on a number of conceptual levels.

In rhetorical parlance, the phrase ‘testing ground’ has lost any speculative meaning it might have had, and now acts as a cynical shorthand used by those who know that leaders have already made up their minds *what* to do, and just wish to perfect the means of *how*.<sup>61</sup> It may, however, be useful to reinvigorate the notion of testing for a moment. Experimentation implies an institutional *openness* to the malleability of method and result that opens, perhaps, a toehold for critical *access* (to be distinguished from critical *purchase*, which must still be gained at an ontological and not epistemological level). In this sense, Iraq is a testing ground not only for the bodies of Marines like Anthony Swofford, but also for the functionalism of technologies like Blue Force Tracker that so excite the desk officers at the Office of

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<sup>59</sup> Tim Blackmore, *War X: Human Extensions in Battlespace* (Toronto: University of Toronto Press, 2005), 3-4.

<sup>60</sup> It should be noted that Anthony Swofford’s account refers to his involvement in Operation Desert Storm (1991) and not Operation Iraqi Freedom (beginning 2003).

<sup>61</sup> For a particularly ferocious – and pre Operation Iraqi Freedom – account of this kind, see, Editorial Board, World Socialist Website, “Iraq – a Testing Ground for US Militarism” (International Committee of the Fourth International, 1998), <http://www.wsws.org/news/1998/mar1998/iraq-mo4.shtml>.

Force Transformation, as well as for the new relations between humans and technology brought about in the experimental deployment of evolving technologies.

This thesis argues that this testing ground is not being driven simply by agent-centred experimentation, or even the slow colonisation of one sphere of power (for example, the US homeland) with the structures and processes discovered in another (for example, Iraq). Rather, this thesis argues that the project of violence – its conditions of possibility, its ordering practices, its affinities and its passions – are altering and alterable. The need to realise the opportunity presented by this openness is particularly acute when following a methodological ethos committed to *interference*. Interference begins with a careful identification of practices that are more or less harmful, and implies a commitment to no singular outcome, but rather an ongoing commitment to the alteration of harmful practices.<sup>62</sup> If violence is open, then it too can be the subject of such interference.

However, as indicated above, there is difficulty in such a project as well. To think of violence as forming a ‘testing ground’ requires a way of thinking about violence that goes against centuries of tradition. Violence holds the dubious distinction of being one of the few categories of human experience to be overlooked by critical social scientific inquiry over the past few decades. It has emerged as a strange lacuna around which discussions take place. As Hannah Arendt argues, the silence surrounding violence itself:

... shows to what an extent violence and its arbitrariness were taken for granted and therefore neglected; no one questions or examines what is obvious to all. Those who saw nothing but violence in human affairs, convinced that they were “always haphazard and serious, not precise” (Renan) or that God was forever with the bigger battalions, had nothing more to say about violence or history.

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<sup>62</sup> This methodological impulse is addressed in the following chapter.

Anybody looking for some kind of sense in the records of the past was almost bound to see violence as a marginal phenomenon.<sup>63</sup>

That is, traditional accounts of the emergence of violence tend to emphasise the determining role played by agency (violence as an instrument) or structure (violence as an inevitable result of certain conditions, for example, scarcity – be it material or political) in explaining the operation of violence.<sup>64</sup> Worse still, some abandon the exploration of ‘meaning’ altogether, throwing their hands in the air in the face of the seemingly intractable irrationality of violence.<sup>65</sup> As a result, traditional accounts have difficulty exploring violence as a *productive force in its own right*.<sup>66</sup> Structural and agent-centric accounts view all violence as being of a piece – only put to different ends, or arising from different structures. Here, in discussions of violence, and as has been pointed out by critical thinkers in many different arenas over the past decade, structure and agency are different sides of the same coin. However, if we take seriously the prospect that violence alters over time, that it has tendencies that can be explored to differentiate *this* kind of violence from *that*, then we can begin to accord significance to the experimental practices of violence found in Iraq, redeeming them from the grand narratives currently so popular of empire or moral decay that seem so

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<sup>63</sup> Hannah Arendt, *On Violence* (San Diego, CA: Harvest Books, 1970), 8.

<sup>64</sup> Paradoxically, this often includes post-structuralist discursive accounts of security and society, which can reduce violence to a discursively determined ‘exercise’ of power. See, for example, David Campbell, *Writing Security: United States Foreign Policy and the Politics of Identity* (Rev. Ed.) (Minneapolis: University of Minnesota Press, 1998), 201-202. The pervasiveness of the agent-centred mode of violence is unsurprising when we consider the psychological imperatives for getting soldiers on the battlefield. As Tim Blackmore argues:

The spectre of control denies the reality of war’s chaos . . . In order to keep soldiers on the battlefield, they must be trained to believe that they can successfully take charge in combat.

Blackmore, *War X*, 16.

<sup>65</sup> For an excellent summary of the ‘traditional’ literature, see, Anna Simons, “War: Back to the Future,” *Annual Review of Anthropology* 28 (1999).

<sup>66</sup> ‘Productive’ here is used according to the sense that Foucault gives it when he describes power as ‘productive’:

In fact power produces; it produces reality; it produces domains of objects and rituals of truth.

Michel Foucault, *Discipline and Punish: The Birth of the Prison* (London: Vintage Books, 1995), 194.

inadequate in the face of the subtly nuanced differences to be found in violence practiced *here* as opposed to *there*.

Nonetheless, saying that violence has an internal ‘power’ to differentiate itself that cannot be explained through deterministic accounts (or through the abandonment of critical inquiry in the face of irrationality) is insufficient to create a vocabulary that adequately describes its operation – its tendencies and the process of its differentiations. This thesis articulates one such vocabulary, opening a route for exploring the operation of violence, its conditions of possibility, its alteration and so on. This is the route opened by a spatial exploration of violence, an interrogation of what might be termed *the spatial logic of violence*.

This chapter develops an argument that links spatialising practices and the exercise of force. Using three authors – Michel Foucault, Henri Lefebvre, and Gilles Deleuze – spatialising practices and violence are linked in a way that denies primacy to the agency of the subject (Foucault), and to the ‘agency’ of structure (Lefebvre), leaving them linked instead as part of a dynamic, experimental and differentiating assemblage (Deleuze).

This chapter firstly serves to outline the conception of spatialising practices that underlines this thesis, establishing the significance of spatiality as an analytical tool. It links the features of spatiality, as established by each author, to the exercise of force in a way that undermines deterministic accounts of violence, enabling the following chapters to explore violence as a force that is ‘open’ or ‘experimental.’ In particular, this thesis proposes a conception of space that is *relational, emergent, and politically important*. This conception of space draws on an upswell of work in post-structuralist and critical geography. For example, in one of the important and influential works on space in recent years, Doreen Massey articulates three propositions about space from

which she proceeds. Firstly, she argues that space is the product of interrelations, and thus cannot be understood in essentialist terms.<sup>67</sup> Secondly, she argues that space is “the sphere of the possibility of the existence of multiplicity in the sense of contemporaneous plurality.”<sup>68</sup> This in turn implies the importance of thinking space as political, if we conceive of the political as the *interaction of difference and heterogeneity*.<sup>69</sup> Finally, she argues that space is a process – that it is always undergoing construction through the relations that form its substance.<sup>70</sup> While the conceptualisation of space offered here is framed slightly differently, it is apparent that there are strong resonances between an account of space as relational, political, and emergent as proposed here, and that proposed by Massey.

As indicated, in this chapter space and its links to violence are considered through the contributions of Michel Foucault, Henri Lefebvre, and Gilles Deleuze. Each of these authors offers an iteration of a mode of thinking about the three qualities of space identified (space as relational, emergent, and politically important), highlighting insights made possible by spatial explorations in these terms. Specifically, Foucault contributes the idea of spatial orderings, and in so doing, undermines the concept of subjectivity, proposing instead that the (ontological) limits of the conditions of possibility for violence be explored through an understanding of its spatial logic. Lefebvre performs a spatio-temporal analysis (a rhythmanalysis), a mode of analysis which introduces duration as somewhere (or, more accurately, *somewhen*) in which qualitative difference can emerge. That is, spatio-temporality allows for violence to be conceived of as truly *open* to change. Yet, as Foucault limits his analysis by shying from exploring the creative potential of the *moment* of battle (preferring instead to focus on the limits of possibility established by its *space*),

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<sup>67</sup> Doreen Massey, *For Space* (London: SAGE Publications, 2005), 9-10.

<sup>68</sup> Massey, *For Space*, 9.

<sup>69</sup> Massey, *For Space*, 10-11.

<sup>70</sup> Massey, *For Space*, 9, 11-12.

Lefebvre's conception of violence and space is limited by his commitment to an (admittedly nuanced and sometimes ambiguous) Marxist humanism. It is Deleuze (with Guattari) who comes closest to expressing spatialising practices and violence as a conjunction that expresses and engenders difference and heterogeneity. His conception of the war machine sees spatialising practices and violence as intimately related – as elements, in fact, of a dynamic, self-differentiating assemblage.<sup>71</sup> We see, then, the progression of violence from being ordered through a spatial logic to operating as an integral component of a spatio-temporal environment.

While each of these author's analyses are explored through the lens of space (as relational, emergent, and politically important), the emphasis of this review remains the articulation of a vocabulary capable of describing the tendencies of violence in a way that creates a meaningful understanding of its material organisation and its productive (and uncertain) nature. As the focus is on spatiality, the account of the authors' works are necessarily partial, and the supporting literature used is limited.<sup>72</sup>

Having thus established the ways in which spatiality can open out the organisation of violence as a subject of critical inquiry, the following chapter establishes certain methodological and ontological imperatives that bring the scope of the inquiry dramatically 'inwards.' The move from the general interrogation of a spatial logic of violence to a more modest exploration of a specific spatial operation of

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<sup>71</sup> As becomes apparent, these authors – whose personal relationships are well documented – use space in similar ways in their work, despite their often divergent interests.

<sup>72</sup> For Foucault and Deleuze, most supporting literature tends not to focus on the materially spatial (as opposed to metaphorically spatial) implications of their work. See, however, Stuart Elden, *Mapping the Present: Heidegger, Foucault and the Project of a Spatial History* (London: Continuum, 2001). For Lefebvre, the opposite is true, but the overly spatialised focus of much of the supporting literature poses its own problems for this thesis, which seeks to understand Lefebvre's conception of time and space. For a good summary of this problem, see, Stuart Elden, "Politics, Philosophy, Geography: Henri Lefebvre in Recent Anglo-American Scholarship," *Antipode* 33, no. 5 (2001).

violence (the US battlespace in Iraq) is important, and should be kept in mind when reading the accounts of Foucault, Lefebvre and Deleuze, all of whom, to some degree, adopt 'big picture' accounts of their subjects.<sup>73</sup>

### **Spatial orderings: bounding the conditions of possibilities of violence**

There are a number of ways of thinking about the relationality of space. In particular, the 'kind' of relations considered important and the way these relations 'form' space are important clues that provide an explanatory vocabulary for the organisation of violence. While Foucault, Lefebvre and Deleuze all conceptualise spatiality and relationality in (slightly) different ways, they draw on a similar understanding of relationality as thoroughly imbued with power in a way that can best be explained in the context of carefully explored spatiality. For Foucault in particular, the concept of spatial orderings helps explain exactly how power/knowledge is implicated in the process of creating relationships between the knower and the known.<sup>74</sup> The spatial aspect of these relationships (which are not limited to relationships between human subjects) is, in fact, so tightly aligned with power/knowledge that it is possible to think of power/knowledge as only two sides of a three-sided möbius strip, power/knowledge/space.

The following section opens with a sketch drawn from one of Foucault's earliest works, *The Order of Things*, a work which, while ostensibly a study of abstract fields of knowledge far removed from the concreteness of relationships in space, actually

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<sup>73</sup> See, for example, John Law's gentle criticism of Foucault: "perhaps," he suggests, Foucault is right in that there are larger limits set by systems of power/knowledge on the possibilities of knowledge, but Law's inspiration is the "more modest" suggestion that "*particular and specific sets of inscription devices*" set the limits to the possibilities of knowledge. John Law, *After Method: Mess in Social Science Research* (London: Routledge, 2004), 35 (emphasis original).

<sup>74</sup> These relationships are not merely relationships of subjection, but also incorporate relationships of subjectification (by which the 'subject' comes to know and thus create themselves).

illustrates the way in which spatiality is woven into the very core of the operation of power/knowledge. This argument is at the core of all that follows in this thesis. Using *spatial orderings* to explore the organisation of violence undermines explanations that point to the determinative role of agency in directing violence, showing that, if anything, agency is as likely a result of violence as its cause.<sup>75</sup> This insight is made concrete with the reading that follows from *Discipline and Punish*. This classic work by Foucault has often served as a starting point for critical theorists of space because of its exemplary description of the space of the Panopticon. In this thesis, however, the work is used to provide an insight into the operation of violence – specifically, the operation of the European armies of the 18<sup>th</sup> century emerge from particular, identifiable spatial relations, bound together in historically specific ways, to form a distinct mode of organising violence.

### Aphasic orderings and the ‘failure’ of space<sup>76</sup>

It appears that certain aphasics, when shown various differently coloured skeins of wool on a table top, are consistently unable to arrange them into any coherent pattern; *as though that simple rectangle were unable to serve in their case as a homogenous and neutral space in which things could be placed so as to display at the same time the continuous order of their identities or differences as well as the semantic field of their denomination*. Within this simple space in which things are normally arranged and given names, the aphasiac will create a multiplicity of tiny, fragmented regions in which nameless resemblances agglutinate things into unconnected islets; in one corner, they will place the lightest-coloured skeins, in another the red ones, somewhere else

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<sup>75</sup> The use of the word ‘ordering’ here is deliberate: it indicates the transitive and incomplete nature of the process. This is in recognition of both Foucault’s commitment to recognising the inherent and necessary resistance to the operation of power/knowledge, as well as to the philosophical and methodological commitments made in the following chapter acknowledging the partial and changeable nature of a seemingly coherent external reality. See, Michel Foucault, *The Will to Knowledge: The History of Sexuality, Volume 1* (London: Penguin Books, 1998), 95-96; Law, *After Method*.

<sup>76</sup> ‘Aphasia’: “loss or impairment of the faculty of symbolic formulation and of speech due to a lesion of the central nervous system.” *The Macquarie Dictionary*, 3<sup>rd</sup> ed., s.v. “aphasia.”

those that are softest in texture, in yet another place the longest, or those that have a tinge of purple or those that have been wound up into a ball. But no sooner have they been adumbrated than all of these groupings dissolve again, for the field of identity that sustains them, however limited it may be, is still too wide not to be unstable, and so the sick mind continues to infinity, creating groups then dispersing them again, heaping up diverse similarities, destroying those that seem clearest, splitting up things that are identical, superimposing different criteria, frenzied, beginning all over again, becoming more and more disturbed, and teetering finally on the brink of anxiety.<sup>77</sup>

The aphasiac's inability to reproduce simple orders in the wool on the table top indicates not just the failure of power/knowledge (the failure to *order*) that accompanies the failure of language, but also vividly illustrates the importance of spatiality in the ordering process. The space of the table, so neutral and readily divisible to the normal brain, is, according to Foucault, inherent in that which undermines the activity of the aphasiac.

The key to understanding the aphasiac's dilemma is to understand how ordering occurs in and through spatial relations. As Foucault astutely notes, it is not that the aphasiac cannot make distinctions between the kinds of wool (indeed, it seems divisions are too plentiful, too fruitful) but rather that 'in order to order' we need to be able to *both* divide and create difference, *and* bring together difference into an overarching similarity. These relationships (of division, of joining – of ordering) are *spatial* in their nature. They must be brought into relation with another object – the surface of the table. Yet for the aphasiac, the spatiality of this relationship fails: once the multiplicity of their divisions reaches the table they are incapable of remaining still, of cohering with other orderings, of maintaining internal stability – thwarted by the topology of this seemingly neutral 'space' that, for the aphasiac, is a space that is twisted to prevent the aligning, hinging and distribution of the similarity and

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<sup>77</sup> Michel Foucault, *The Order of Things* (London: Routledge Classics, 2002), xix-xx (emphasis added).

difference that their own (mis)ordering has identified. Foucault here urgently reminds us of our need to create stable spatial relationships if our ordering processes are to display both differences and “the semantic field of their denomination.”

Implicit in Foucault’s account – although not perhaps articulated in quite this way – is the idea that space cannot be conceived as simply an empty ‘container’ in which things are neutrally laid out (in Casey’s evocative terms, “a totality of extension.”)<sup>78</sup> There are only larger or smaller things, in relation to each other. What we think of as empty space is actually the unevenness of the ground, the complexity of the built environment, the scrub and the bush, not to mention the people and cars and airplanes, and the weather.<sup>79</sup> This is what is meant when it is said that space is relational: we may think of the table as the space on which ordering takes place, but it is also an active participant in that ordering – it forms relations with the objects being placed on it, and those relationships inflect the ability of objects to form particular orders. An object’s organisation depends on the topography, chorography, and yes, sometimes even geography, of the ‘bigger’ object which frames it.<sup>80</sup> What Foucault illustrates through the aphasiac’s experience is that there are certain spatial relationships that ‘work’ and others that do not, and that these interfere with the formation of relationships of power/knowledge (the process of ordering).

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<sup>78</sup> Edward S. Casey, *Representing Place: Landscape Painting and Maps* (Minneapolis: University of Minnesota Press, 2002), 353.

<sup>79</sup> For a discussion of different ways of thinking about ‘space,’ see, Edward S. Casey, *The Fate of Place: A Philosophical History* (Berkeley and Los Angeles: University of California Press, 1997).

<sup>80</sup> Issues of scale are discussed in the following chapters. The difference between topography, chorography, and geography appears from a distance to be one of scale. Topography generally refers to the precise features of a region or locality, chorography refers to the study of regions, while geography implies the study of the earth as whole (or at least parts of the earth considered in a whole-earth context). However, there are also subtle differences in these concepts that in particular relate to the mode of interaction assumed with the object of study. See, Casey, *Representing Place*.

This is not to say that there is a ‘real’ space ‘out there,’ that stands in contrast to the operation of power/knowledge which may attempt to suborn space to its own purposes but must ultimately bow to the supremacy of its materiality. Put another way, the aphasiac is not ‘wrong’ in their ordering choices because the ‘real’ spatiality of the pieces of wool does not align to their own (mis)ordering. This would be to assume that the spatiality of the wool is ‘essentially’ determined in relation to the tabletop. Rather, Foucault implies that certain kinds of power/knowledge ‘work’ (function) with certain kinds of spatial relationships. Think again of the aphasiac. What if, instead of being told the tabletop must be the space of their ordering, they were allowed to choose their own ‘background’ spatiality? Might a three-dimensional organisation have allowed the aphasiac to create a more stable series of relationships? Might they even have chosen to express the ordering in a mobile space (a space-time), perhaps by way of computer simulation? As Foucault goes on to ask:

On what ‘table,’ according to what grid of identities, similitudes, analogies, have we become accustomed to sort out so many different and similar things?<sup>81</sup>

As Foucault goes to great lengths to show in this work, whichever ‘table’ it is to which we are accustomed, its spatiality is deeply implicated in the historically specific nature of the contemporary modes of ordering (or, in other words, the contemporary operation of power/knowledge).

*The Order of Things* is concerned with exploring the ‘conditions of possibility’ of knowledge, with understanding the limits to what we can think and how these are established by what Foucault calls the episteme. These limits are established by modes of order, which are historically specific, materially concrete and non-

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<sup>81</sup> Foucault, *The Order of Things*, xxi.

intentionally driven apparatuses of power/knowledge that pervade society.<sup>82</sup>

However, as shown in this discussion, order is also a mode of spatiality that organises relationships according to its historically specific logic. As Foucault argues:

Order is, at one and the same time, that which is given in things as their inner law, the hidden network which determines the way they confront one another, and also that which has no existence except in the grid created by the glance, an examination, a language; and it is only in the blank spaces of this grid that order manifests itself in depth as though already there, waiting in silence for the moment of its expression.<sup>83</sup>

The grid here is not a spatial metaphor but a historically realised spatial technique: a particular way of arranging and understanding the arrangement of ‘things’ in space.<sup>84</sup> Different societies experience order through different spatial relationships. Massey, for example, notes the disarray caused among the Aztecs by the arrival of the Spanish in the city of Tenochtitlán, because their direction was from that of “acatl” and the year was the first of Reed.<sup>85</sup> This mode of spatial and temporal ordering was a result of the Aztec’s own conditions of possibility, a power/knowledge arrangement that informed relationships in such a way that the spatiality of relationships (in this case, what Westerners would perceive through compass direction) could send reverberations through the entire Aztec political structure.

Foucault alerts us to the importance of the spatiality of relationships in ensuring the functionality of power/knowledge. There is no simple determination of materiality *over* mental conceptions of space – there is, in fact, no such sustainable distinction. As Stuart Eeden notes:

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<sup>82</sup> Thus, in every culture, between the use of what one might call the ordering codes and reflections upon order itself, there is the pure experience of order and its modes of being.

Foucault, *The Order of Things*, xxiii.

<sup>83</sup> Foucault, *The Order of Things*, xxi.

<sup>84</sup> "Space, Knowledge, and Power," in Michel Foucault, *Power: Essential Works of Foucault, 1954-1984, Volume 3* (London: Penguin, 2002), 363, cited Eeden, *Mapping the Present*, 119.

<sup>85</sup> Massey, *For Space*, 1-3.

Foucault understands both physical and mental conceptions of space to be merely parts of a greater whole, abstractions from the more fundamental level of the lived experience.<sup>86</sup>

It is in this lived experience – where we experience the modes of being of order – that different kinds of relationships of power/knowledge/space form different kinds of societies. Foucault’s work on power/knowledge/space establishes the importance of spatiality as an analytical tool. It shows that analysing spatiality helps us understand the nature of the power relations present in a given circumstance, the contours of the field of knowledge at play – the conditions of order’s possibility. The following example, drawn from Foucault’s *Discipline and Punish*, elaborates a spatial vocabulary for exploring the conditions of possibility of the exercise of violence. It also illustrates, however, the limitations inherent in Foucault’s formulation with respect to the creative and productive effects violence might have on that spatial ordering.

### Disciplinary societies and clockwork armies: the spatial orderings of discipline and violence in the 18<sup>th</sup> century

*Discipline and Punish: The Birth of the Prison* gives an account of the origins of the disciplinary mechanism of power. The book tells the story of how in the 17<sup>th</sup> century a series of institutions, behaviours, power relations and areas of knowledge emerged that invested in man what Foucault terms the ‘modern soul.’ The modern soul, to be distinguished from the religious soul, makes the individual consubstantial with his behaviour (no longer an individual who engages in sex with men, but a homosexual, and so on), so that it is possible for the first time to address power toward *the body as an individual*.

The man described for us [by these new scientific and humanist knowledges], whom we are invited to free, is already in himself the effect of a subjection much more profound than himself. A ‘soul’

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<sup>86</sup> Elden, *Mapping the Present*, 119.

inhabits him and brings him into existence, which is itself a factor in the mastery that power exercises over the body. The soul is the effect and instrument of a political anatomy; the soul is the prison of the body.<sup>87</sup>

Thus, as Elden astutely notes, the subtitle of *Discipline and Punish* refers not to the birth of the penal institution of the prison, but rather to the birth of the ‘soul.’<sup>88</sup> Foucault is not investigating a particular *space* of power/knowledge (the prison, the Panopticon), rather he is investigating a particular *configuration* of power/knowledge/space (the disciplinary relation). He does this through exploring a series of institutions that emerged roughly contemporaneously and which operated in similar ways, including the newly reformed ‘clockwork army’ of the 18<sup>th</sup> century.<sup>89</sup>

As Christopher Duffy notes in his comprehensive review of militaries in the Age of Reason, the 18<sup>th</sup> century marked a significant break in military history, with the inauguration of the first large standing armies in Europe since the Roman Empire. The political process by which standing armies became possible was closely linked to both the defeudalisation of army structures and the increasing centralising tendencies of the absolute monarchs of the time, who standardised their forces by removing the power of colonels and captains to raise, administer, clothe and train their troops “according to individual fancy.”

The armed forces of Europe were therefore transformed into bodies that were more stable and responsive to manipulation than anything known since Classical times. Weapons and clothing

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<sup>87</sup> Foucault, *Discipline and Punish*, 30.

<sup>88</sup> Elden, *Mapping the Present*, 135.

<sup>89</sup> The phrase ‘clockwork army’ is drawn from Manuel de Landa’s reading of the organisation of the army of Frederick the Great in the middle of the 18<sup>th</sup> century. Manuel de Landa, *War in the Age of Intelligent Machines* (New York, NY: Zone Books, 1991), 127. Foucault himself uses the metaphor in *Discipline and Punish* only once, and then not in reference to the military but to the Lancaster method of teaching. However he does make frequent use of ‘machinic’ metaphors when describing the military. Foucault, *Discipline and Punish*, 162-69. See, also, Azar Gat, *A History of Military Thought: From the Enlightenment to the Cold War* (Oxford: Oxford University Press, 2001), 58-61.

became largely standardised within armies in the later seventeenth century, and in the eighteenth century the central bureaucracy worked out prescribed codes relating to the conduct of war.<sup>90</sup>

Of particular significance in this new military arrangement was the innovation of the drill, perfected in the armies of Frederick the Great. The drill served the dual purpose of training mind and body for battle as well as providing order to the time of idle soldiers.

Foucault, through a reading of the military developments of this time that largely accords with that provided by Duffy, gives an account of the disciplinary mechanism within the military that tracks the ordering (power/knowledge) of the disciplinary mechanism *through bodies, their relation to each other and to the whole, and their positioning in time*. This thoroughly spatial account of the military apparatus provides a number of key insights into the limits of possibility for the exercise of violence. Firstly, it emphasises that violence results from *everyday practices* of power/knowledge that can be far removed from the battlefield (as it then was). This insight is particularly useful in the context of the micro-study that forms the substantive core of this thesis, where everyday practices of the military seem to bear little relation to the activity of killing, and nonetheless thoroughly imbue the (experimental) quality of violence. This insight is extended in the following section, where Lefebvre's conception of the 'unfolding' of the unexpected from the everyday is intimately bound up in his conception of the temporality of space.<sup>91</sup> This 'unfolding' or becoming is extended in the following through the work of Deleuze. Secondly, Foucault's analysis illustrates a number of different spatial trajectories that can be

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<sup>90</sup> Christopher Duffy, *The Military Experience in the Age of Reason* (Ware, Hertfordshire: Wordsworth Editions, 1987), 15.

<sup>91</sup> The importance of the everyday in the work of Henri Lefebvre is often overlooked in commentaries emphasising his spatiality. Yet Lefebvre's final, and perhaps most insightful, book on space has also been considered to be the fourth volume in his occasional series on everyday life. See, Henri Lefebvre, *Rhythmanalysis: Space, Time and Everyday Life* (London: Continuum, 1992).

implicated in the organisation of violence by power/knowledge. This provides the beginnings of a vocabulary for describing the relation between violence and spatialising practices.

Foucault identifies the disciplinary mechanism as inscribing the individual in relations along four trajectories of power/knowledge/space. Firstly, he identifies the importance of the spatial distribution of bodies according to a cellular, segmented pattern. Foucault refers to this as the “individuality-cell,” and its significance lies in the way it individualises the body while maintaining it as part of a coherent whole.<sup>92</sup> Foucault argues that this pattern finds its particular form in the military through the system of rank, an individualising and yet totalising practice. Far from being a simple ‘mental’ or ‘ideological’ construct, rank is also a material and spatial distribution.<sup>93</sup> It is rank that determines the spatial distribution of bodies when it comes to living arrangements, to the drill, as well as in battle. Crucially, rank establishes the body in relation to others.

Discipline is an art of rank, a technique for the transformation of arrangements. It individualizes bodies by a location that does not give them a fixed position, but distributes them and circulates them in a network of relations.<sup>94</sup>

This, then, is one key trajectory along which violence can be organised. How are bodies treated? Are they taken as individuals or en masse? If they are taken as individuals, how are they then held in relation to each other? For the 18<sup>th</sup> century military, individuals were held in constant relation to one another through hierarchical rank. While hierarchical rank is still an important aspect of

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<sup>92</sup> Foucault, *Discipline and Punish*, 161, also 141-49.

<sup>93</sup> As English participants on the Republican side in the Spanish Civil War discovered when fighting for the revolutionary militias: George Orwell’s reaction, in particular, is a wonderful testament to the ambiguity he felt in having to rely on class solidarity rather than rank to ensure action was taken. George Orwell, *Homage to Catalonia* (San Diego, CA: Harvest Books, 1969), 27-29.

<sup>94</sup> Foucault, *Discipline and Punish*, 149.

contemporary military experience, as we shall see there is presently a decentralising tendency in the US military that does not hold fixed the network that keeps (ranked) bodies circulating in relation to each other. In contemporary doctrine, the importance of bodies often varies according to the contingency of their circumstance – who is closest, who can act, who has weapons still loaded.<sup>95</sup>

Secondly, Foucault identifies a particular ‘kind’ of body being disciplined: it is a body whose natural movements have an efficiency that can be harnessed by the disciplinary impulse, a body that Foucault refers to as the “individuality-organism.”<sup>96</sup> The knowledge of ‘natural’ bodily poses enables the power relation of discipline to take as its target the natural efficiency of the movements of the body, particularly in its use of tools, which were treated as organic extensions of that body (see, for example, the new role of the rifle in drill).<sup>97</sup> This is particularly significant in light of the importance of new technologies to the RMA: the trajectory Foucault is identifying here is not simply that of the body’s relation to itself but also its relation to its technologies or weapons.

Thirdly, Foucault identifies a particular temporality at work, a temporality in which “movements are integrated, one upon another, and which is oriented towards a terminal, stable point,” what he calls elsewhere the “individuality-genesis.”<sup>98</sup> The drill is an example of this temporality par excellence, being an overall action broken down into segments. These segments are practised through extensive repetition individually, and then recombined in linear time.<sup>99</sup> This segmentation then re-combination, or re-formation, in linear time forms a particular organisation of

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<sup>95</sup> See the following discussion of swarming, 230-31.

<sup>96</sup> Foucault, *Discipline and Punish*, 161, also 149-56.

<sup>97</sup> See, also, Duffy, *The Age of Reason*, 104-5.

<sup>98</sup> Foucault, *Discipline and Punish*, 160, 161, also 156-62.

<sup>99</sup> Foucault, *Discipline and Punish*, 157-158. See, also, Duffy, *The Age of Reason*, 111-15.

violence that is 'genetic' (in the original sense of the word, as referring to the origins and development of something). As we shall see in the discussion of Lefebvre, this kind of linear temporality is only one of many forms of temporality, all of which can inflect the organisation and operation of violence.

The significance of temporality becomes even clearer in the final aspect of the disciplinary mechanism that Foucault identifies. These are the newly devised means of composing the forces of these bodies ('cellularised,' 'organicised,' and 'geneticised') into a greater whole, an "art of constructing ... in which the product of the various forces is increased by their calculated combination."<sup>100</sup> This art of combination, emerging in the self-consciously scientific expression of the art of tactics at the time, has various implications for the 18<sup>th</sup> century military, particularly for the practice of command. Duffy, for example, notes that the careful composition of linear formations and decisions regarding the deployment of troops at that time were made on the basis of calculations laid down by philosophers of war.<sup>101</sup> This is highly significant: if the force of an army is seen to derive from its own internal organisation, and not from the intake of energy from the outside, say, then the organisation of violence is substantially different: violence may well inscribe itself across the landscape in ways that ignore the particularity of battle.<sup>102</sup> Indeed, in the 18<sup>th</sup> century, despite the chaos that ensued once battle had begun, engaging in battle required a careful dance between forces, the steps of which were known by all. Further, it was the 'light forces,' not inculcated in the contemporary discipline of the drill (such as the "wild Cossacks," pressed into service by different nations at various points), who were treated with

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<sup>100</sup> Foucault, *Discipline and Punish*, 167, also 162-69.

<sup>101</sup> Duffy, *The Age of Reason*, 189-91.

<sup>102</sup> One has to wonder if this is not a part of what happened in those bloody and immobile early years of World War I. Certainly command and control practices emphasising the maintenance of an offensive posture over the knowledge of ground conditions have been implicated in the extraordinarily high mortality rate of British troops. See, Peter Doyle and Matthew R. Bennett, "Military Geography: Terrain Evaluation and the British Western Front 1914-1918," *The Geographic Journal* 163, no. 1 (1997): 23.

something akin to fear by their own commanders, who distrusted their wanton ability to take circumscribed battles to the level of wide-spread slaughter, destroying intended targets of command and plunder.<sup>103</sup>

Here, then, is a thoroughly spatial account of the disciplinary mechanism, and, through this, of the organisation of violence in the 18<sup>th</sup> century. The everyday organisation of the military inflects directly the organisation of violence, although Foucault shies from examining the moment of battle himself. He does, however, note that thanks to this (spatialised) disciplinary relation, when it comes to battle, the soldier becomes “a fragment of mobile space, before he is courage or honour.”<sup>104</sup> The spatial relations that the military took onto the battlefield were *cellular, organic, genetic* and *combinatory* (in the mechanical sense of the addition of forces, and not in the contemporary sense of the alteration of existing forces through mixture). Spatial relations on the 18<sup>th</sup> century battlefield consisted neither of the interconnected and mutually recursive relations that make up the ‘networked’ and contingent spatiality of today; nor did they consist of the chaotic mixture of two entities releasing their pent-up violence en masse. Violence was released in a relatively ordered fashion.

The expression of violence was circumscribed as a result of discipline (violence is organised more peaceably, perhaps?) but in Foucault’s account this is not (merely) through the exercise of discourse but (also) through the spatiality of bodies:

The ‘*militaire*’ – the military institution, military science, the *militaire* himself, so different from what was formerly characterized by the term ‘*homme de guerre*’ – was specified, during this period,

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<sup>103</sup> Duffy, *The Age of Reason*, 12-13, 268-73. Duffy notes that in some conflicts, particularly in the American War of Independence, irregular forces were commonplace, undermining the historically sweeping nature of the claims of Foucault regarding the disciplinary nature of the armies of the 18<sup>th</sup> century.

<sup>104</sup> Foucault, *Discipline and Punish*, 164.

at the point of junction between war and the noise of battle on the one hand, and order and silence, subservient to peace, on the other.<sup>105</sup>

Implicit of course in this is the prospect that the *militaire* will at some point be unable to balance the noise of battle and the silence of peace: spatiality is by no means certain, discipline fails. This is one of the advantages of trying to understand how violence is expressed spatially, because spatial relations show confusion and resistance – like the aphasiac, perhaps, some generals attempt to impose their version of order on a spatiality that resists.

At points, Foucault's work even alerts us to the difficulty of pulling spatial relations into these, and not different, forms. The work of creating and implementing drills; the work of enforcing discipline in the face of food shortages or the anarchy-inducing properties of over-abundant alcohol rations; the persuasive work of expounding this philosophy (this 'science') of war over other, more established accounts; not to mention the unspoken work of boots in mud, and steel on steel – in all of these the spatial relations established are only partly determined by the spatial ordering identified. In a particularly compelling example, Duffy notes that even the best-disciplined units were good for one or two campaigns at the most: casualties, and more importantly, *fear*, got in the way of a unit ever fighting as a well-oiled machine again.<sup>106</sup> Material arrangements created the relationships which ordered violence, but also opened routes for different spatial orderings, or for no discernable order altogether. And it is not simply a matter of materiality 'messing' things up: Foucault particularly alerts us to the contemporaneous coexistence of other spatial orderings, including the very orderings that this arrangement was attempting to replace.

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<sup>105</sup> Foucault, *Discipline and Punish*, 168.

<sup>106</sup> Duffy, *The Age of Reason*, 245-50. The 'passions' as an influence on the creative evolution of violence is discussed with respect to Deleuze, below.

Spatial orderings offer a compelling insight into the way in which power/knowledge operates. It is an insight of *tendency* – that is, a tendency to circumscribe violence within *these* limits, and not *those*. Foucault identifies a number of trajectories along which we might differentiate particular organisations of power/knowledge/space: in particular, he identifies the relationship of the body to the whole; the ‘kind’ of relationship the body has with itself and with its tools or weapons; the temporality in which spatial relations are implicated; and the mode of combination of different forces. These facets are all explored in some way in the following chapters in relation to the contemporary battlespace, allowing insight into the particular nature of US military violence in Iraq.

However, where Foucault fails (and this is not least because violence was not the target of his analysis) is in exploring the creative and experimental properties of violence once ‘unleashed.’ By shying from the moment of combat, Foucault conducts an analysis that gives away too much to space and too little to time.

### **Rhythmanalysis: the emergence of novelty in the everyday**

Foucault provides an account of spatial orderings that explores the way in which violence is organised on the battlefield through specific ‘kinds’ of relations. However, despite the usefulness of this account in accounting for the ‘everyday’ nature of the organisation of violence, there is still little room for the openness, or the productivity, of violence. The everyday is a little too everyday – a little too repetitive. If violence is a force in Foucault’s account, it is a force like any other, one which is limited by power/knowledge/space in its expression. In fact Foucault does not even grant violence the capacity to be a force in this sense. As Deleuze puts it, in Foucault:

Violence expresses well the effect of a force on *something*, some object or being. But it does not express the power relation, that is to say the *relations between force and force*, ‘an action upon action.’<sup>107</sup>

This is perhaps why he chooses to focus on the *organisation* of the army, as though the violence that followed would be instrumental (precisely the argument that this thesis resists).<sup>108</sup>

Foucault’s limiting reading of violence is hardly fatal to using his spatial orderings to understand the organisation of violence: it is certainly true that power/knowledge/space play an important role in establishing everyday practices that construct a particular form of violence (a particular style of battle, for example). However, to open space for the exploration of the productiveness of violence it is necessary to discuss the temporality of the space in which it takes place, for it is *in time* that violence unfolds its differentiating powers. As Feldman argues:

Sites of legitimisation and authorization suppress historicity through linear, teleological, eschatological, or progressive temporalities. *Action, however, unfolds time as difference and as radical heterogeneity.*<sup>109</sup>

It is in this context that the epigraph to this chapter was chosen, and bears repeating prior to engaging Lefebvre’s work on emergence and space:

Violence itself both reflects and accelerates the experience of society as an incomplete project, as something to be made.<sup>110</sup>

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<sup>107</sup> Gilles Deleuze, *Foucault* (London: Continuum, 1999), 25 (emphasis original).

<sup>108</sup> This is certainly the conclusion drawn by Julian Reid, who discusses Foucault’s attempts to “codify the relationship between war and politics.” Julian Reid, “Deleuze’s War Machine: Nomadism Against the State,” *Millennium: Journal of International Studies* 32, no. 1 (2002): 61.

<sup>109</sup> Feldman, *Formations of Violence*, 2 (emphasis added).

<sup>110</sup> Feldman, *Formations of Violence*, 5.

Lefebvre seeks to understand the linkage between the everyday (and the everyday production of space) and the emergence of difference. This section begins by exploring Lefebvre's understanding of space, before outlining his conception of temporality in terms of his Nietzschean-inspired understanding of difference and repetition. It then examines Lefebvre's work on the lived everyday, which ultimately emphasises its spatio-temporal, or *rhythmic*, construction, and it concludes by exploring Lefebvre's rhythmanalysis of the military practice of dressage. Lefebvre's account here is particularly useful given the overlaps in content and insight with Foucault's work on discipline.<sup>111</sup>

While Foucault utilises 'the spatial' as a mode of analysis, Lefebvre explicitly sets out to interrogate 'space' as a concept, although his sociological method integrates conceptual development with concrete, historical analysis. It is in one of the best known of Lefebvre's works – *The Production of Space* – that the most extended of these interrogations takes place. Following is a brief examination of how Lefebvre conceives of space, in a way that both distinguishes him from Foucault and highlights the opportunities presented by his thought.

*The Production of Space*, like much of Lefebvre's work, rests on the assertion of a dialectic. Although Lefebvre was a Marxist, it has been noted that his work as a sociologist and philosopher is so interesting "because his Marxism is so bad, is so heterodox."<sup>112</sup> In this, his reworking of the (Hegelian-)Marxist form of dialectical materialism is no exception. Lefebvre seeks to disrupt the teleological progression of

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<sup>111</sup> Lefebvre, however, was far from fond of Foucault's work, which he considered to be both 'fashionably' anti-humanist and lazy in its use of spatial concepts. Stuart Elden, *Understanding Henri Lefebvre: Theory and the Possible* (London: Continuum, 2004), 23; Henri Lefebvre, *The Production of Space* (London: Basil Blackwell, 1991), 3-4.

<sup>112</sup> Andy Merrifield, "Henri Lefebvre: A Socialist in Space," in *Thinking Space*, ed. Mike Crang, and Nigel Thrift, 167-82 (London: Routledge, 2000), 178. See, also, Elden, "Lefebvre in Recent Anglo-American Scholarship", 809-10; Robert Beauregard, "Positioning Urban Theory," *Antipode* 35, no. 5 (2003).

dialectical history through a more complicated understanding of the dialectic, the dialectique de triplicité, in which the synthesised third term is not a result of ‘progression’ but engages in recursive relations with the initial two terms.<sup>113</sup> This notion has been interpreted by many postmodern geographers to mean that the either/or logic of binarism has been enlarged to include “a much larger logic of ‘both/and also.’”<sup>114</sup> As Elden notes, however, Lefebvre’s dialectic is not about the use of a third ‘inclusive’ term, but rather refers to a three-way process in which the ‘synthesis’ can impact recursively on the two conflicting terms. This is significant in terms of Lefebvre’s understanding of temporality, which is never straightforwardly linear.<sup>115</sup> As with much else in Lefebvre, space emerges from a dialectic, one whose specific form inflects many of his analyses, including his dialectics of time and of the everyday. This dialectic is that of space as *perceived*; space as *conceived*; and space as *lived* – *l'espace perçu, conçu, et vécu*.<sup>116</sup>

Lefebvre also terms ‘space as perceived’ *spatial practice*. Spatial practice refers to the space that is ‘secreted’ by the everyday operation of society in space. As Lefebvre argues:

The specific spatial competence and performance of every society member can only be evaluated empirically. ‘Modern’ spatial practice might thus be defined – to take an extreme case – by the daily life of a tenant in a government-subsidized high-rise housing project.<sup>117</sup>

It is spatial practice that performs the lion’s share of the task of repetitively producing (re-producing) social space each day. Spatial practice stands in contrast with *representations of space* (space as conceived): this refers to the ‘authorised’ or abstract conceptualisations of space that exist within a society. Specifically, Lefebvre

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<sup>113</sup> Lefebvre, *The Production of Space*, 417-18.

<sup>114</sup> Elden, *Understanding Lefebvre*, 37.

<sup>115</sup> Elden, *Understanding Lefebvre*, 170.

<sup>116</sup> Lefebvre, *The Production of Space*, 37-39. See, also, Elden, *Understanding Lefebvre*, 190.

<sup>117</sup> Lefebvre, *The Production of Space*, 38.

refers to the conceptualised space of ‘technocrats’ and scientists; that is, to the spatial abstractions created by those in whom neocapitalist society invests the power to declare understandings of, and engage in the reshaping of, space, be it through the declaration of scientific laws or the practices of urban planning.<sup>118</sup> It is from the interaction between these two aspects of space that the third aspect of space emerges, space *as lived* (what Lefebvre anti-intuitively names ‘representational space’). While some authors describe representational space as “symbolic meaning enacted in spatial form,” this thesis endorses an interpretation closer to that proposed by Stuart Elen, who describes this space as “*real-and-imagined*.”<sup>119</sup> Indeed, an overemphasis on “symbolic meaning” can lead to precisely the abstract tendencies that characterise the representations of space that Lefebvre ascribes to the second part of the dialectic. In particular, these abstract tendencies can lead to academics attempting to ‘read’ space-as-lived, whereas, in reality, space-as-lived tends “toward more or less coherent systems of *non-verbal* symbols and signs.”<sup>120</sup>

It is out of this dialectic that ‘space’ as we know it is *produced* as both a mental and material object – not as those things separately, but rather as both together. It is important to recognise that for Lefebvre this is a historically specific analysis of space – *modern* or *social* space is produced in this way. This means that the concept of production remains connected to its Marxist origins, and the production of space is closely tied to the way in which we as humans are alienated from the space that we produce.<sup>121</sup> The nature of Lefebvre’s analysis becomes clear in the following passage, where the phrase ‘social space’ should not be read as specifying ‘down’ from a more

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<sup>118</sup> Lefebvre, *The Production of Space*, 38.

<sup>119</sup> Helen Liggett and David C. Perry, “Spatial Practices: An Introduction,” in *Spatial Practices: Critical Explorations in Social/Spatial Theory*, ed. Helen Liggett and David C. Perry, 1-12 (Thousand Oaks, CA: SAGE Publications, 1995), 7; Elen, *Understanding Lefebvre*, 190 (emphasis original).

<sup>120</sup> Lefebvre, *The Production of Space*, 39 (emphasis added).

<sup>121</sup> For a discussion of Lefebvre’s interpretation of alienation and production, see, Elen, *Understanding Lefebvre*, 39-46.

general concept of space, but rather should be read as the emergent product of the dialectics of space (“everything that is produced either by nature or by society”):

The form of social space is encounter, assembly, simultaneity. But what assembles, or what is assembled? The answer is: everything that there is *in space*, everything that is produced either by nature or by society, either through their co-operation or through their conflicts. Everything: living beings, things, objects, works, signs and symbols. Natural space juxtaposes – and thus disperses: it puts places and that which occupies them side by side. It particularizes. By contrast, social space implies actual or potential assembly at a single point, or around that point.<sup>122</sup>

Space, then, in Lefebvre is relational in the sense of being an assemblage: unlike the posited ‘natural’ space (of which there are few examples in Lefebvre’s work), where things are not necessarily connected in material or mental ways, social space finds its form in the way that things are *brought together* through production. As for Deleuze, discussed following, a question is raised as to the form of that assemblage. Unlike Deleuze, there is a strong role for human agency in understanding and altering the form of that assemblage. However, to understand this process in Lefebvre, it is important to see space as emergent. The temporality in which Lefebvre views the dialectical production of space as occurring (the same temporality inherent in his recursive dialectic) is vital to understanding the form of assemblage that results. In the words of Andy Merrifield:

Now, in Lefebvre’s hands, space becomes redescribed not as a dead, inert thing or object, but as organic and fluid and alive; it has a pulse, it palpitates, it flows and collides with other spaces. And these interpenetrations – many with different temporalities – get superimposed upon one another to create a *present* space.<sup>123</sup>

It is in the context of this pulsating, palpitating flowing spatio-temporality that violence can emerge as a truly differentiating (and creative) force.

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<sup>122</sup> Lefebvre, *The Production of Space*, 101 (emphasis original).

<sup>123</sup> Merrifield, “Henri Lefebvre,” 171 (emphasis original).

The history of space does not have to choose between 'processes' and 'structures,' change and invariability, events and institutions.<sup>124</sup>

### Repetition and difference

We have already seen the non-teleological bent of Lefebvre's work in his *dialectique de triplicité*, and Stuart Elden explores Lefebvre's understanding of history in terms of its Nietzschean origins.<sup>125</sup> Nietzschean time (perhaps better read in this context as history) according to Lefebvre is the:

... theatre of universal tragedy, as the *cyclical, repetitious space-time of death and of life*, [and] has nothing in common with Marxist time – that is, historicity driven forward by the forces of production.<sup>126</sup>

This is not to say that Lefebvre rejects outright the Marxist insight that capitalist production has formed its own determinedly linear temporality, particularly in its measurement of production through progressive time. Rather, this temporality, which he astutely notes involves the *repetition* of "mechanical gestures" as part of accumulative processes (something he terms "the linear repetitive"), is subsumed

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<sup>124</sup> Lefebvre, *The Production of Space*, 174.

<sup>125</sup> Elden, *Understanding Lefebvre*, 170. In addition to Lefebvre's published works, this section draws strongly on Elden's reading of Lefebvre. This is because many of Lefebvre's publications are not available in English translation, while most commentaries focus either exclusively on *The Production of Space* or on the volumes of everyday life (although there is an increasing set of commentaries on *Rhythmanalysis*, recently published in English). Elden's work is almost unique in spanning the entire lifetime of Lefebvre's work. See, however, Rob Shields, *Lefebvre, Love and Struggle* (New York, NY: Routledge, 1999).

<sup>126</sup> Lefebvre, *The Production of Space*, 22 (emphasis added).

within a broader temporality – something equivalent perhaps to the temporality of ‘history.’<sup>127</sup>

History for Lefebvre, then, is repetitive, with both cyclical and linear temporalities (progressions, actions, social behaviours) composed through repetition. In Nietzsche, however, the “cyclical, repetitious space-time of death and life,” or the eternal return, is not an argument about the return of the past via repetition so much as an understanding of the temporality of the future, or change. The future emerges via the differential repetition of the past. As Elizabeth Grosz argues:

The eternal return is not the return of a seasonal, cyclical rhythmicality (with which it is commonly confused), for it is an imperative for the future, a future that is in continuity, through divergence and elaboration, that is, through difference from rather than through any linearity, causal or otherwise, with the present.<sup>128</sup>

Similarly for Lefebvre, repetition is not the simple similitude of abstract repetition:

Not only does repetition not exclude differences, it also gives birth to them; it **produces** them. Sooner or later it encounters the **event** that arrives or rather arises in relation to the sequence or series produced repetitively. In other words, difference.<sup>129</sup>

Lefebvre notes that while “repetitions generate differences … not all differences are equivalent.”<sup>130</sup> Lefebvre is drawing here on an essentially Bergsonian distinction between ‘differences in kind’ (qualitative difference) and ‘differences in degree’ (quantitative difference).<sup>131</sup>

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<sup>127</sup> Henri Lefebvre, *Critique of Everyday Life, Volume II: Foundations for a Sociology of the Everyday* (London: Verso, 2002), 340; Lefebvre, *Rhythmanalysis*, 8.

<sup>128</sup> Elizabeth Grosz, *The Nick of Time: Politics, Evolution, and the Untimely* (Durham, NC: Duke University Press, 2004), 157.

<sup>129</sup> Lefebvre, *Rhythmanalysis*, 7 (emphasis original).

<sup>130</sup> Lefebvre, *The Production of Space*, 372.

<sup>131</sup> Lefebvre, *Everyday Life*, Vol. II, 342. In relation to Lefebvre’s oscillating position with regard to Bergson, Elden draws attention to the contrasting positions of Rob Shields and Gregory Seigworth: Elden, *Understanding Lefebvre*, 10-11 n. 8. See, Shields, *Lefebvre, Love and Struggle*, especially 118;

Through his conception of temporality and, in particular, its relation to *change*, Lefebvre wishes to reinstate “discontinuity, grasping it in the very fabric of the ‘lived,’ and on the loom of continuity, which it presupposes.”<sup>132</sup> Here, Lefebvre rejects the idea of ‘smooth’ (even if creative) evolutionary change as much as he rejects rupture and revolutionary change. Rather, he proposes that we view change through the mechanism of “*involution*.”<sup>133</sup> Involution gives change its *own* duration, makes it *present* through its own beginning, middle, and end – that is, through its own history.<sup>134</sup>

Lefebvre’s temporality is marked by repetition and difference, in which the emergence of difference *in kind* (‘creative evolution’ or *produced* difference) must be understood through the duration of the *lived* and not merely resulting from the operation of abstract forces. The ‘lived’ (as the sphere in which change must emerge) for Lefebvre is not a simple state of reality, but is bound up precisely with the emergence of (social) space from the dialectic of l’*espace perçu, conçu, et vécu* (space as perceived, conceived, and lived). Change emerges from dialectics of time and space acting together. For example, an overview of one of the questions that haunts Lefebvre’s work follows: the way in which industrial production, a mode of producing time and space that is thoroughly imbued in the “linear repetitive” and the production

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Gregory J. Seigworth, “Banality for Cultural Studies,” *Cultural Studies* 14, no. 2 (2000): 244, 261 n. 17. Given Lefebvre’s Nietzschean inspiration, however, it is hardly surprising that his work accords in some ways with Bergson. For a detailed discussion of the continuities in the work of Bergson, Nietzsche, and Darwin, see, Grosz, *The Nick of Time*.

<sup>132</sup> Lefebvre, *Everyday Life, Vol. II*, 342.

<sup>133</sup> Lefebvre, *Everyday Life, Vol. II*, 345. Although the translation does not specify, it seems likely Lefebvre is referring here to involution in the biological sense of the term: “rolling up or folding in on itself.” *The Macquarie Dictionary*, 3<sup>rd</sup> ed., s.v. “involution.”

<sup>134</sup> Lefebvre, *Everyday Life, Vol. II*, 345.

of homogeneity, can nevertheless give rise to urban space-time, a condition that far from being homogenous, “actually appears as the *differential*.<sup>135</sup>

Under the reign of historical time, differences induced within a given mode of production [quantitative differences] coexist at first with produced differences promoting the demise of that mode [qualitative differences]. A difference of the latter kind is not only produced – it is also productive. Thus those differences within medieval society that foreshadowed a new mode of production had themselves accumulated during the general process of accumulation; at last they precipitated a tumultuous transition and eventually shattered existing societies and their mode of production.<sup>136</sup>

### **Daily life, the everyday, and everydayness: the emergence of difference**

How, then, can we understand the emergence of these ‘tumultuous transitions’ from the gradual accumulation of induced differences? Lefebvre suggests that at least one site for the emergence of difference is in the everyday, the site of much of the ordering of violence. Gregory Seigworth identifies a dialectic operating in Lefebvre’s conception of the everyday, and goes so far as to suggest that it is through this dialectic that the excess, the virtuality, the “curious vitality” of Lefebvre’s writings exists.<sup>137</sup> The dialectic takes the familiar perceived, conceived, lived (perçu, conçu, vécu) form as: *daily life* (everyday life as it exists in its concrete materiality); *the everyday* (everyday life as a concept – not, as in daily life, the concrete existence that has always been, but as a historically produced plane of existence); and *everydayness* (also called, ‘the extra-daily’ or the ‘extra-everyday’.) Everydayness “addresses the way that [the] plane [of the everyday] (of immanence) is lived: a single and boundless space-time for living.”<sup>138</sup>

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<sup>135</sup> Elden, *Understanding Lefebvre*, 146 (emphasis original).

<sup>136</sup> Lefebvre, *The Production of Space*, 373.

<sup>137</sup> Seigworth, “Banality for Cultural Studies,” 244, 231-32.

<sup>138</sup> Seigworth, “Banality for Cultural Studies,” 245-46.

Seigworth, while perhaps overlooking the complicated recursive relationship between the synthesis and the opposing two terms inherent in the dialectique de triplicité, argues that it is in the third term of the dialectic that we see the true operation of time – in the sense of the operation of *duration* (as also found in Bergson and Deleuze), a duration in which it is possible for radical otherness to unfold.<sup>139</sup> Indeed, for Seigworth, it is everydayness that “extends its thirdness across and into” the other dialectics that mark Lefebvre’s work, enabling it to be “‘the space’ of all spaces, the ‘life’ of all lived.”<sup>140</sup> While not going to this extreme, this thesis accepts the reading that Lefebvre’s historical sociology demands an extrapolation of everyday life and everydayness because of its implication in the production of space and time, and because of its implication in the emergence of radical difference. As we shall see in Lefebvre’s *Rhythmanalysis*, which is an exploration of precisely this *everydayness*, alteration (the emergence of difference) is bound up with the repetition of the rhythms of the everyday giving rise to the ‘moment’ of change.<sup>141</sup>

These moments form a part of “the history of the individual.”<sup>142</sup> At one level this reflects Lefebvre’s ongoing Marxist (and humanist) concern with promoting disalienation. At another level, however, it need not reflect only a humanist concern with the individual as an agent of change. The moment is not simply a ‘psychical’ decision: it emerges from the space-time in which it operates. As Lefebvre argues:

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<sup>139</sup> Seigworth, “Banality for Cultural Studies,” 248. Regarding Seigworth’s reading of Lefebvre’s dialectic, it is worth noting that he cites with approval Rob Shields and Edward Soja, who read Lefebvre as endorsing a radical thirdness, or exteriority, that emerges from dialectical interaction. Seigworth, “Banality for Cultural Studies,” 247–48. On this, see, Elden, *Understanding Lefebvre*, 170.

<sup>140</sup> Seigworth, “Banality for Cultural Studies,” 251.

<sup>141</sup> For a detailed description of Lefebvre’s theory of moments, see, Lefebvre, *Everyday Life*, Vol. II, Chapter 6.

<sup>142</sup> Lefebvre, *Everyday Life*, Vol. II, 344. The concept of the moment as presented in *Rhythmanalysis* is much more impersonal. See, Lefebvre, *Rhythmanalysis*, Introduction.

Moreover, the history of the individual in his everyday life cannot be separated from the social sphere. Narrow and limited though it is, it is part of other, broader works.<sup>143</sup>

Were space and time not structured as they are (through repetition, through difference, through everyday life, through everydayness), then the individual would not encounter the 'moment.' Further, the individual who encounters the moment is not simply a traditional rational political 'subject.' Rather, in the sphere of 'the lived' Lefebvre lays much emphasis on the *body* of the individual as a source of 'excess' or innovation – as a driver of change. The body's privileged position in this regard derives from its position at the interface of the *perçu* and the *conçu*, from its primacy in the *lived*:

For the body indeed unites cyclical and linear, combining cycles of time, need and desire with the linearities of gesture, perambulation, prehension and the manipulation of things – the handling of both material and abstract tools. The body subsists precisely at the level of the reciprocal movement between these two realms; their difference – which is lived, not thought, is its habitat.<sup>144</sup>

As Kristen Simonsen argues, the body here is not simply a material object but an active participant in shaping duration. Lived experience:

... comes from the excessive energies of the body, from creative activity and from the level of affection – involving need and desire, passion and sexuality, images and the spoken word.<sup>145</sup>

We have already seen how Lefebvre views space and time as active participants in *and* products of the processes of everyday life, and further how he identifies their importance in the process of differentiation. The emphasis on the body as the interface (of both the dialectics of space and the everyday) through which difference emerges sees Lefebvre conceive of his final project (*Rhythmanalysis*) in terms of the

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<sup>143</sup> Lefebvre, *Everyday Life*, Vol. II, 344.

<sup>144</sup> Lefebvre, *The Production of Space*, 203.

<sup>145</sup> Kirsten Simonsen, "Bodies, Sensations, Space and Time: The Contribution By Henri Lefebvre," *Geografiska Annaler: Series B Human Geography* 87, no. 1 (2005): 7.

body's role in space and time. As he foreshadows the project in *The Production of Space*:

The formal theory of difference opens of itself onto the unknown and the ill-understood: onto rhythms, onto circulations of energy, onto the life of the body (where repetitions and differences give rise to one another, harmonizing and disharmonizing in turn).<sup>146</sup>

It is therefore in *Rhythmanalysis* that Lefebvre combines his thought on space and time into an exploration of everyday life, with the work serving as a culmination of 55 years of academic work, and incorporating many themes present in his earlier work, from his work on urban landscapes to his ongoing series on the critique of everyday life.<sup>147</sup>

### Rhythmanalysis: spatio-temporal emergence and the art of dressage

Everywhere where there is interaction between a place, a time and an expenditure of energy, there is **rhythm**.<sup>148</sup>

In the prior discussion of Lefebvre's understanding of space as emergent, it is apparent that Lefebvre looks for change to unfold in the sphere of the everyday (and, in particular, in the sphere of the *lived* everyday, as opposed to its concrete or conceptual abstractions) through repetition and difference. This provides important clues as to how to understand the spatial organisation of violence, and in particular to the openness of violence and its capacity for transformation. Lefebvre expresses his project of rhythmanalysis in this way in the opening pages of *The Critique of Everyday Life, Volume II*:

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<sup>146</sup> Lefebvre, *The Production of Space*, 373.

<sup>147</sup> Elden, *Understanding Lefebvre*, 170.

<sup>148</sup> Lefebvre, *Rhythmanalysis*, 15 (emphasis original).

The critique of everyday life studies the persistence of rhythmic time scales within the linear time of modern industrial society. It studies the interactions between cyclic time (natural, in a sense irrational, and still concrete) and linear time (acquired, rational, and in a sense abstract and antinatural). It examines the defects and disquiet this as yet unknown and poorly understood interaction produces. Finally, it considers what metamorphoses are possible in the everyday as a result of this interaction.<sup>149</sup>

Rhythmanalysis, then, is explicitly political, in the sense of making use and encouraging the production of difference in space-time. This section explores Lefebvre's rhythmanalysis of dressage, which receives only brief treatment in the text *Rhythmanalysis* but which has been chosen specifically because of the similarities to the work of Michel Foucault discussed above.

As suggested previously, for Lefebvre, rhythmanalysis proceeds from the body. In *Rhythmanalysis*, however, the analysis of rhythms goes beyond the restoration of the body in critical thought, and is used to undertake an extensive critique of the 'thing,' or thing-ness, itself. All that is seemingly 'present' and immobile in social space is replaced with the ongoing presence of rhythms.<sup>150</sup> This allows Lefebvre to reprise his analysis of repetition and difference in a way that seems very close to Deleuzian (Bergsonian) 'becoming':

If there is difference and distinction, there is neither separation nor an abyss between so-called material bodies, living bodies, social bodies and representations, ideologies, traditions, projects and utopias. They are all composed of (reciprocally influential) rhythms in interaction.<sup>151</sup>

Things differ in kind through the internal variation of rhythms. However, for all their diversity of expression, Lefebvre analyses rhythms through a limited, but general, vocabulary: repetition (and difference); the interference of the cyclical and the linear;

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<sup>149</sup> Lefebvre, *Everyday Life*, Vol. II, 49 (emphasis removed), cited Elden, *Understanding Lefebvre*, 197.

<sup>150</sup> Lefebvre, *Rhythmanalysis*, 10.

<sup>151</sup> Lefebvre, *Rhythmanalysis*, 43.

and the pattern of birth, growth, peak, decline, and end.<sup>152</sup> Following, the discussion of Lefebvre's *rhythmanalysis* of dressage illustrates the critical possibilities of an account of the everyday spatial organisation of violence that takes into account its temporality, or its *emergence*.

### **Dressage: education, learning, training**

To enter into a society, group or nationality is to accept values (that are taught), to learn a trade by following the right channels, but also to bend oneself (to be bent) to its ways.<sup>153</sup>

In *Discipline and Punish*, Foucault uses dressage to discuss the way in which the body is rendered 'docile' by power/knowledge, such that the 'analysable' body (as understood by knowledge) can be joined to the 'manipulable' body (the target of power).

The great book of Man-the-Machine was written simultaneously on two registers: the anatomico-metaphysical register, of which Descartes wrote the first pages and which the physicians and philosophers continued, and the technico-political register, which was constituted by a whole set of regulations and by empirical and calculated methods relating to the army, the school and the hospital, for controlling or correcting the operations of the body. ... And yet there are points of overlap from one to the other. La Mettrie's *L'Homme-machine* is both a materialist reduction of the soul and a general theory of *dressage*, at the centre of which reigns the notion of 'docility', which joins the analysable body to the manipulable body.<sup>154</sup>

Bringing these two bodies together through the 'modern soul' is, for Foucault, the essence of the disciplinary relation. As we saw in the previous section, this process is carried out through specific forms of spatial relations: specifically, it takes place through a spatiality that is *cellular*, *organic*, *genetic*, and *combinatory*. While there is

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<sup>152</sup> Lefebvre, *Rhythmanalysis*, 15.

<sup>153</sup> Lefebvre, *Rhythmanalysis*, 39.

<sup>154</sup> Foucault, *Discipline and Punish*, 136 (emphasis original).

a temporality built into this arrangement, it is *singular* in the sense of being able to be *thought* in isolation from the temporalities of other orderings – even if it coexists with them.

Foucault's analysis of dressage as the *joining* of the 'analysable' body to the 'manipulable' body through power/knowledge/space finds echoes in Lefebvre's analysis of dressage, albeit in the familiar form of a dialectic. Here, dressage is the 'synthesis' of a dialectic referring to knowledge and control. This dialectic is identified by the three terms *education*, *learning*, and *dressage*. Again, we see echoes of the form *perçu*, *conçu* et *vécu*. As Lefebvre puts it:

Knowing how to live, knowing how to do something and just plain knowing do not coincide. Not that one can separate them. Not to forget that they go together.

*(Le savoir-vivre, le savoir-faire, le savoir tout court ne coïncident pas.)*<sup>155</sup>

This line, nearly lost in the brevity of Lefebvre's account of dressage, sits at the core of what distinguishes his thought from Foucault's.

For Foucault, the disciplinary relation imprisons the body (more or less effectively) inside the 'soul,' a soul which is created and known, investigated and made consubstantial with the body through an entire power/knowledge/spatial apparatus that 'knows' the body, 'knows' its efficiencies and its weaknesses: "The human body was entering a machinery of power that explores it, breaks it down and rearranges it."<sup>156</sup> By emphasising the creation of this particular kind of person (the materially souled person), engaged in particular power (and spatial) relations,

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<sup>155</sup> Lefebvre, *Rhythmanalysis*, 39, 107 n. 24.

<sup>156</sup> Foucault, *Discipline and Punish*, 138.

Foucault limits the *process* of discipline to the process of ‘education’ and ‘learning’.<sup>157</sup>

As Ash Amin and Nigel Thrift argue in a different context:

Then ... and again a characteristic of Foucauldian thought, bodies are reduced to embodiment degree zero; shorn of many of their performative capacities, unconscious thought, emotions, passions, even violence, they present a peculiarly passive stance to the world. Even so, it is clear that everyday life also consists of many unconscious body movements which have been inculcated into us from an early age.<sup>158</sup>

While Amin and Thrift may be overstating the case with regards to Foucault’s inattention to the body, it is true that in Foucault, at least in *Discipline and Punish*, the body does not have the same ‘agency’ as the process of education and learning. There is no space or time – no everydayness – in which the body can reiterate education and learning in a way that generates difference. For Lefebvre, on the other hand, dressage is precisely the *lived* (and hence bodily) experience of the education and learning identified by Foucault as a *process*. This lived experience should be distinguished from the knowledge of *what* to do and a knowledge of *how* to do it, although it is of course a result of these, and in turn impacts on their exercise. For Lefebvre, dressage is a (result of) process; it has its own duration and its own rhythm.

Lefebvre describes dressage as the bending of the body to the particular and historically specific rhythms of the group – the particular rhythm of walking, the particular style of gesture. It is the educated unconscious, where the unconscious is not a “substance hidden behind the scenes” but “that which goes on in the body: in our material and social bodies.”<sup>159</sup> Dressage, then, is the incorporation of the group

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<sup>157</sup> Note that while Foucault’s analysis may limit the *process* of discipline, it does not limit its *outcomes*: Foucault, as always, recognises that there is an inherent resistance to such orderings, a resistance often located in the body. See, Michel Foucault, *Society Must Be Defended* (London: Allen Lane, Penguin Books, 2003), 280-81.

<sup>158</sup> Ash Amin and Nigel Thrift, *Cities: Reimagining the Urban* (Cambridge: Polity Press, 2002), 104.

<sup>159</sup> Lefebvre, *Rhythmanalysis*, 44.

into the unconscious broadly defined: not as part of a ‘mob mentality,’ but rather through the incorporation of the general rhythm into our ‘natural’ gestures.<sup>160</sup> “Humans break themselves in [*se dressent*] like animals,” says Lefebvre contemptuously.<sup>161</sup>

How, then, does dressage work? Lefebvre identifies the particular form of temporality of dressage as a combination of the linear with the cyclical – “a linear series of imperatives and gestures repeats itself cyclically.”<sup>162</sup> There is an explicit “science” involved – particularly in the breaking in *process* (when dressage is ‘learnt’) – often in institutional settings. This science carefully composes the rhythms of the lived experience so that it controls the duration of the lived *and* propagates itself (“Needs and desires produce themselves in the interaction”).<sup>163</sup> Time is divided into three: the controlled repetition of linear series; the complete stop to allow for repose; and the provision of diversions, rewards and distractions. It is a trinity of activity-repose-entertainment. *Together* these form the rhythm of dressage.

It would be a mistake to note only instantaneous attitudes. Or a series of movements (a film). It’s the training that counts: that imposes, that educates, that breaks-in.<sup>164</sup>

However, Lefebvre spends much of this short chapter discussing the ways in which dressage is lived alongside/as part of rhythms that stand in opposition to its operation. In particular, Lefebvre discusses the way ‘natural’ rhythms – odours, the rhythms of a woman’s body – resist the clinical, and masculine, “virility” of the

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<sup>160</sup> Chapter Five will explore the extension of the idea of a collective unconscious to include an unconscious that is ‘distributed’ through so many technological agents. See, Nigel Thrift, “Remembering the Technological Unconscious by Foregrounding Knowledges of Position,” *Environment and Planning D: Society and Space* 22, no. 1 (2004).

<sup>161</sup> Lefebvre, *Rhythmanalysis*, 39.

<sup>162</sup> Lefebvre, *Rhythmanalysis*, 39.

<sup>163</sup> Lefebvre, *Rhythmanalysis*, 41.

<sup>164</sup> Lefebvre, *Rhythmanalysis*, 41.

rhythms of dressage. In a delightful expression of the partial way in which this resistance is expressed, Lefebvre notes:

Of course the femininity upheld by the meanings of vital rhythms, interior and exterior to dressage, did not resist in a single block. It occasionally fainted, in order subsequently to *rebel*.<sup>165</sup>

Further, while the body in Lefebvre may be a site of the ‘excess’ of vitality over conditioning, it is also strongly influenced by its social context (“the body subsists at precisely the level of the reciprocal movement between these two realms”).<sup>166</sup> It is in this context that Lefebvre speaks of the ‘failure’ of the military model of dressage (with its triadic temporality) in the context of the colonies, and resistance on the part of the Protestant countries rebelling against the Catholic church.<sup>167</sup> Finally, Lefebvre identifies the operation of other “sectors” with their own specific rhythms that interfere with those of dressage: the urban rhythm, the rhythm of transport, the rhythm of culture “which is more or less functionalised and linked to market conditions.”<sup>168</sup>

Hence, while Foucault’s soldier is ‘made’ through the specific spatiality of power/knowledge relations, Lefebvre’s dressage is already a more ephemeral construct (assemblage), unfolding through varying temporalities and spaces as a part of a multiplicity of rhythms (and excessive ‘passions’) which together comprise the body. To understand dressage is to examine the spatio-temporal elaboration of a specific power/knowledge relation, a relationship Foucault would identify as disciplinary. For Lefebvre, the identification of the rhythms of dressage allows him to explore its mechanisms of operation (a triadic temporality; a combination of cyclical and linear), its fault-lines (women’s bodies, for example – malodorous as they are),

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<sup>165</sup> Lefebvre, *Rhythmanalysis*, 42 (emphasis original).

<sup>166</sup> Lefebvre, *The Production of Space*, 203.

<sup>167</sup> Lefebvre, *Rhythmanalysis*, 42, 41.

<sup>168</sup> Lefebvre, *Rhythmanalysis*, 43.

its complication (the interference of other rhythms), and its *alteration*. On this final point, Lefebvre's account offers a departure from Foucault, returning to echo his theory of moments as emerging from the everyday:

Dressage puts into place an automatism of repetitions. But the circumstances are never *exactly* and absolutely the same, *identical*. There are changes, be they only by the hour or the season, the climate, light, etc. Dressage fills the place of the unforeseen, of the initiative of living beings. Thus function the ways of breaking-in humans: military knowledge, the rites of politeness, business. Space and time thus laid out make room for humans, for education and initiative: for liberty. A little room. More of an illusion: dressage does not disappear. In the street, people can turn right or left, but their walk, the rhythm of their walking, their movements [*gestes*] do not change for all that.<sup>169</sup>

Alteration, then, occurs from within the bounds of dressage, and they are not necessarily qualitative differences.

Here, one cannot help but be reminded of Deleuze's account of "control societies" wherein the sites of confinement that characterise a disciplinary society are replaced by "ultrarapid forms of apparently free-floating control."<sup>170</sup> In control societies, change forms a *part* of the apparatus of control:

Controls are a *modulation*, like a self-transmuting molding continually changing from one moment to the next, or like a sieve whose mesh varies from one point to another. ...

In disciplinary societies you were always starting all over again (as you went from school to barracks, from barracks to factory), while in control societies you never finish anything – business, training, and military service being coexisting metastable states of a single modulation, a sort of universal transmutation.<sup>171</sup>

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<sup>169</sup> Lefebvre, *Rhythmanalysis*, 40-41 (emphasis original).

<sup>170</sup> Gilles Deleuze, *Negotiations, 1972-1990* (New York, NY: Columbia University Press, 1995), 178.

<sup>171</sup> Deleuze, *Negotiations*, 178-79 (emphasis original).

Does this mean that dressage removes the possibility of change? Not quite: it means simply that creativity, according to Lefebvre, “proceeds from the liberty and individuality that unfurl only in conditions that are external (to them).”<sup>172</sup> The lacuna in which creativity can unfurl can emerge from the dissonance of competing rhythms; or, from the ‘becoming irregular’ of rhythms that precedes and follows revolutions. As Lefebvre argues:

Disruptions and crises always have origins in and effects on rhythms: those of institutions, of growth, of the population, of exchanges, of work, therefore those which make or express the complexity of present societies. One could study from this perspective the rhythmic changes that follow revolutions. Between 1789 and 1830 were not bodies themselves touched by the alterations in foods, gestures and costumes, the rhythm of work and of occupations?<sup>173</sup>

Here, we see the originality of revolutionary violence – its innovative capacity, its capacity to disrupt rhythm, to transform and alter rhythm, to produce and to destroy.

Rhythmanalysis offers compelling insights into the way in which tendencies of organised violence might be entrenched or challenged: cyclical and linear rhythms; interferences and resistances; peaks and troughs – they all matter in establishing spatial tendencies. Spatial orderings might matter in organising matter, but violence is also subject to the vicissitudes of time. If we analyse violence through space, then Lefebvre’s work forces us to attend to the complicated and dialectical interactions of the way we practise space and the way we think it, interactions best understood in terms of the way we *live* space, which in turn forces us to think temporally. Here Lefebvre urges us to be aware of the body’s role at the interface of conceived and perceived space, as well as to be aware of the historically specific nature of the everyday. The temporality of the space of Lefebvre – its vitality, the way it “pulses ...

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<sup>172</sup> Lefebvre, *Rhythmanalysis*, 43.

<sup>173</sup> Lefebvre, *Rhythmanalysis*, 44 (emphasis original).

palpitates ... flows and collides" – is an essential component of his thinking.<sup>174</sup> This is the vocabulary he gifts his readers: a vocabulary capable of addressing the spatio-temporality of violence.

## Difference as political: the war machine and the outside of power

Stuart Elden offers us an analysis of Lefebvre and Foucault that sees these two authors, different though they are, as two sides of the same (Heideggerian) coin. For Elden, Foucault elaborates the relationship between history and space (establishing the limits of the conditions of possibility for 'history'), while Lefebvre illustrates the relationship between politics and space through his exploration of the production of space in modern capitalism (establishing the vitality and openness of spatial practices).<sup>175</sup>

Given that Foucault uses power relations to investigate society, rather than the Marxist productive relationship, and that power relations are in and through space, we can see that *questions of space are inherently political*. ... Lefebvre suggests 'there is a politics of space because space is political.' Following Heidegger [and Foucault], we might suggest that 'there is a politics of space because *politics is spatial*'.<sup>176</sup>

Yet the above description of the work of Foucault and Lefebvre suggests an inadequacy in their accounting. If politics is spatial in Foucault, then it is not a spatiality that unfolds through time: or rather, *the temporality of history is unconnected to the temporality of space*. If space is political in Lefebvre, then *the political is limited to the Marxist productive relationship*, no matter how broadly defined – space is political only insofar as it is produced and, importantly, insofar as it relates to the human.

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<sup>174</sup> Merrifield, "Henri Lefebvre", 171.

<sup>175</sup> Elden, *Understanding Lefebvre*, 189.

<sup>176</sup> Elden, *Mapping the Present*, 151 (emphasis original).

While Foucault and Lefebvre provide a vocabulary with which to think the spatial organisation of violence (from Foucault, the relationship of the body to the whole; the body to itself and its tools; the mode of combination of forces) and the spatio-temporality of the organisation of violence (from Lefebvre, its mechanisms of operation, rhythmical fault-lines, temporal interferences, and transformations), they have nonetheless failed to think *space-time-politics together*. It is the contention of this section of this thesis that Deleuze thinks precisely in this way. Politics, here, is obviously not the political process as narrowly defined. Politics instead is the struggle to create novelty, to produce difference. If we are to understand violence as open and experimental, then we must understand violence as political in this sense. Foucault and Lefebvre have linked space to violence in ways that illustrate some political potential, but each conception is limited in some way. Deleuze, on the other hand, acts to:

... endow philosophy with an explicitly political vocation, defining it as the creation of 'untimely' concepts. Philosophy is untimely and 'worthy of the event' when it does not simply respond to social events as they appear but rather *creates new concepts which enable us to counter-actualise the significant events and processes that define our historical present*.<sup>177</sup>

The political in the thought of Deleuze (and Guattari) is too large a topic to be covered in this thesis, however, and this section will focus solely on the account of 'space as political' that emerges from Deleuze and Guattari's discussion of the war machine in *A Thousand Plateaus*.<sup>178</sup> In particular, this section will explore the way in which one of the key concepts of Deleuze and Guattari, the *assemblage*, opens out the contingent, the possible, and therefore the political, for analysis, no matter how

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<sup>177</sup> Paul Patton, *Deleuze and the Political* (London: Routledge, 2000), 132-33 (emphasis added).

<sup>178</sup> While the chapter on the war machine was co-authored with Félix Guattari, it is fair to say that many of the concepts with which this account is elaborated are drawn from, and elaborated further in, Deleuze's singular philosophy. On commentary and the division of labour between Deleuze and Guattari, see, Manuel de Landa, *Intensive Science and Virtual Philosophy* (London: Continuum, 2002), 8.

ephemeral that account may prove. It will then explore the ‘war machine,’ and the innovative account of violence it allows. For Deleuze and Guattari the seemingly destructive ‘purpose’ of organised violence (the elimination of the enemy in war) is only an incidental result of an essentially *productive* assemblage, the war machine. Violence in their view is truly removed from the instrumentalist or structuralist accounts of its exercise: violence is a distinctive assemblage – not the ‘result’ of an assemblage, or the purpose of an assemblage, but the assemblage itself.<sup>179</sup>

### Assemblages: affects, abstract machines and discussing the ephemeral

The challenge is to show that ‘nature’ consists of a field of multiplicities, *assemblages of heterogeneous components* (human, animal, viral, molecular, etc.), in which ‘creative evolution’ can be shown to involve blocks of becoming.<sup>180</sup>

In the work of Lefebvre explored so far, and to a lesser extent, in that of Foucault, the emphasis of analysis has been on the political subject – that is, on the human. Lefebvre’s rhythmanalysis, the least humanistic of all his endeavours, is still grounded in an exploration of the body’s interactions with the rhythms that surround it (as Amin and Thrift put it, “everyday urbanism is marked by a certain humanism,

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<sup>179</sup> In fact, the war machine is an abstract machine which operates to generate assemblages-as-violence like nomadism. The distinction between the abstract machine and the assemblage is (crudely) presented in this thesis as that between the “content adequate to the Idea” and the material construction of that form. This is *not* Platonic idealism, however, as the ‘abstract machine’ is in no way *pre-determinative* of the form of assemblage: an abstract machine (also termed body without organs) is always subject to processes of deterritorialisation and reterritorialisation. This distinction has been elaborated in much greater detail – see, de Landa, *Intensive Science and Virtual Philosophy*, especially Chapter One; Keith Ansell Pearson, *Germinal Life: The Difference and Repetition of Deleuze* (London: Routledge, 1999), especially Chapter Three. This thesis avoids discussing this distinction in depth as it draws its ontological principles from elsewhere, as shown in the following chapter, and uses Deleuze simply as a spur to thought. See, Law, *After Method*, 41-42.

<sup>180</sup> Ansell Pearson, *Germinal Life*, 171 (emphasis added).

evident in the powers of reflexive wanderers and rhythmanalysts”).<sup>181</sup> Foucault’s account of subject formation may be impersonal in the sense that the subject is decentralised in favour of analyses of power/knowledge/space, nonetheless the emphasis remains on the formation of the *political subject* per se.<sup>182</sup> Perhaps it is for this reason that despite Foucault’s spatialisation of power relations, he never truly accounts for the political nature of *space*. Space is not limited to the human, nor that which relates to the human.

For Deleuze and Guattari, the assemblage operates as a way of thinking beyond the human. This is the key distinction that Keith Ansell-Pearson notes between Deleuze’s early interaction with Bergson and his Bergsonism post-Guattari:

In his collaborative work with Guattari, Deleuze is no longer addressing the ‘becoming’ of the human as a question of its ‘evolution’ as an individuated *biological organism* . . . . The ‘human’ is now understood solely and strictly in terms of it being a component in a machinic assemblage.<sup>183</sup>

Machinic assemblages, comprising a promiscuous arrangement of heterogeneous elements, are, in turn, held together by what Ansell-Pearson terms ‘transversals,’ “which themselves are special kinds of components that play the role of specialized vectors of deterritorialization.”<sup>184</sup> The assemblage concept, abstract as it seems, is highly concrete. It refers to the material ways in which these diverse elements are brought together – and held together – in complex ways. As Marcus and Saka put it:

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<sup>181</sup> Amin et al., *Cities*, 26.

<sup>182</sup> This emphasis only increased in Foucault’s final works on the cultivation of the self in the last two volumes of the History of Sexuality series: Michel Foucault, *The Use of Pleasure: The History of Sexuality, Volume 2* (London: Penguin Books, 1992); Michel Foucault, *The Care of the Self: The History of Sexuality, Volume 3* (London: Penguin Books, 1990).

<sup>183</sup> Ansell Pearson, *Germinal Life*, 140 (emphasis original).

<sup>184</sup> Ansell Pearson, *Germinal Life*, 171.

Assemblage is a topological concept that designates the actualizations of the virtual causes or causal processes that are immanent in an open system of intensities that is under the influence of a force that is external (or heterogeneous) in relation to it.<sup>185</sup>

The immediate effect of viewing the organisation of 'life' in this way is that agency is de-centred. The mind, for example, is not viewed as an inside that looks 'out,' but rather is part of (a number of) systems involving the body and the 'world' – "complex material systems which cut across individuals (assemblages) and which traverse phyletic lineages and organismic boundaries (rhizomes)."<sup>186</sup> As they are discussing this in contradistinction to the traditional perspective of evolutionary biology, Deleuze (and Guattari) confront the issue of how, then, to address the study of ethology. Ethology, the study of animal behaviour in their natural environment, has been used to help understand the process of evolution.<sup>187</sup> If animals are no longer seen as discrete units to be examined, or links in a (linear) evolutionary chain, then how should the study of their behaviour, and more importantly, their evolutionary adaptation and change, be approached? Deleuze and Guattari suggest that an 'ethology' of assemblages – an understanding of the behaviour of assemblages – can be sought through exploring the *affective interaction* of assemblages and their components. In the words of Amin and Thrift, who seek to understand the city as a Deleuzian assemblage, "the city should be seen as a kind of force-field of passions that associate and pulse bodies in particular ways."<sup>188</sup> Deleuze and Guattari note the way in which affect (which is asocial but not pre-social – unqualified emotion, unsocialised desire) is both a result of and a condition of assemblages:<sup>189</sup>

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<sup>185</sup> George E. Marcus, and Erkan Saka, "Assemblage," *Theory, Culture & Society* 23, no. 2-3 (2006): 103.

<sup>186</sup> Ansell Pearson, *Germinal Life*, 171.

<sup>187</sup> *The Macquarie Dictionary*, 3<sup>rd</sup> ed., s.v. "ethology."

<sup>188</sup> Amin et al., *Cities*, 84.

<sup>189</sup> Intensity [affect] is asocial, but not presocial – it *includes* social elements but mixes them with elements belonging to other levels of functioning and combines them according to a different logic.

Assemblages are passional, they are compositions of desire. Desire has nothing to do with a natural or spontaneous determination; there is no desire but assembling, assembled, desire. The rationality, the efficiency, of an assemblage does not exist without the passions the assemblage brings into play, without the desires that constitute it as much as it constitutes them.<sup>190</sup>

Thus the body, which in Foucault is a *site* of intense political engineering, and in Lefebvre is the (passional, excessive) *interface* of rhythmic construction, in Deleuze becomes *enrolled* in assemblages through the operation of affect.

The ethological approach seeks to define a body not in terms of organs and functions, and as characteristics of species and genus, but rather in terms of 'affects' (which are not mere feelings or affections, but harmonies of tone, colour, etc.).<sup>191</sup>

This has profound implications for the political. As Claire Colebrook argues, it provides an impetus for a politics that is "pre-personal:"

We tend to think of politics primarily as ideology – the thoughts, ideas or attitudes from which we act and move; but that acting moving self is produced, Deleuze and Guattari argue, *from affect*.<sup>192</sup>

If affect is autonomous (and pre-personal) then there is a need to refer to a "*micropolitics*, which attends to the passional connections among bodies."<sup>193</sup> This politics is explicitly spatial: assemblages are assembled in and through space, and their *duration* is concretely linked to that spatiality. On this point, Marcus and Saka note that assemblage is a useful concept precisely for its ephemerality: the

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Brian Massumi, *Parables for the Virtual: Movement, Affect, Sensation* (Durham: Duke University Press, 2002), 30 (emphasis original).

<sup>190</sup> Gilles Deleuze, and Félix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia Vol. 2* (London: Continuum, 2004), 440-41.

<sup>191</sup> Ansell Pearson, *Germinal Life*, 179.

<sup>192</sup> Claire Colebrook, *Deleuze: A Guide for the Perplexed* (London: Continuum, 2006), 55 (emphasis original).

<sup>193</sup> Colebrook, *Deleuze*, 55 (emphasis original). See, also, "The Autonomy of Affect," in Massumi, *Parables for the Virtual*, 23-45.

insubstantial duration of an assemblage is what allows the concept to mediate “two classic varieties of modernist thought”:

The one [that] indulges and even celebrates the intractably unpredictable and contingent in rapidly changing contemporary life; the other [that] hopes for an understanding of the structural principles of order (and disorder) within the play of events and processes.<sup>194</sup>

The key quality of assemblage, then, is its ability to hold in tension these two critical impetuses. It is the same quality that allows for an analysis of violence that does not subordinate it to the determinism of structuralism or the despair of anarchical descriptions.

The assemblage leads, however, to a ‘strange’ kind of analysis that, as is explored in the following chapter, allows an entrance into the multiplicity and contemporaneity that both saturates the ‘real’ world and is found so rarely in academic accounts.

It [assemblage] generates enduring puzzles about ‘process’ and ‘relationship’ rather than leading to systematic understandings of these tropes . . . It offers an odd, irregular, time-limited object for contemplation. Whoever employs it does so with a certain tension, balancing, and tentativeness where the contradictions between the ephemeral and the structural, and between the structural and the unstably heterogeneous create an almost nervous condition for reason.<sup>195</sup>

The ways in which assemblage is implicated in the political nature of spatiality become clearer when the concept is used to explore the work of Deleuze and Guattari on the war machine. Their “Treatise on Nomadology” in *A Thousand Plateaus* is extraordinary in the originality of its conception of the organisation of violence as paradoxically both independent of and intimately tied to two seemingly diametrically

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<sup>194</sup> Marcus et al., "Assemblage", 103, 104.

<sup>195</sup> Marcus et al., "Assemblage", 104.

opposed political ‘formations’ (abstract machines-cum-assemblages), that of the nomad and that of the State (which nonetheless appropriate one another’s forms of violence with often unexpected results).

### The war machine: making violence durable

Paul Patton argues that the war machine makes its appearance in Deleuze and Guattari as “a general name for those social assemblages that are outside and hostile to the state.”<sup>196</sup> While it is true that Deleuze and Guattari view the war machine as external to the State, and that they argue that the war machine acts as a force preventing State formation in nomadic societies, it is misleading to imply that such assemblages come into being *in order* to resist the State. Rather, Deleuze and Guattari refer primarily to the positive project of the war machine – a positive project that is *intrinsically and wholly spatial*.

We have seen that the war machine was the invention of the nomad, because it is in its essence the constitutive element of smooth space, the occupation of this space, displacement within this space, and the corresponding composition of people: this is its sole and veritable positive object (*nomos*). Make the desert, the steppe, grow; do not depopulate it, quite the contrary. If war necessarily results, it is because the war machine collides with States and cities as forces (of striation) opposing its positive object ... .<sup>197</sup>

The war machine, then, is an abstract machine that drives the formation of specific assemblages (of which nomadic societies are perhaps the originary but certainly not the only example) that constitute a particular kind of (smooth) space.

This leads to a puzzle, and one that is significant in light of the subject matter of this thesis. Why is this abstract machine termed the *war* machine, when war is a secondary characteristic of its operation? Firstly, in Deleuze and Guattari’s analysis,

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<sup>196</sup> Patton, *Deleuze and the Political*, 111.

<sup>197</sup> Deleuze et al., *A Thousand Plateaus*, 460 (emphasis original).

the war machine has a unique relationship with violence – a relationship that produces and organises violence in an *entirely creative context*. The violence of the war machine is not the paltry, rigidly delimited internal violence available to the State (“police” violence, as Deleuze and Guattari term it derisively, is violence *as determined by the law*), rather the war machine refers to “*a way of making violence durable, even unlimited.*”<sup>198</sup> The act of ‘making violence durable’ is primary in understanding why nomadology’s abstract machine is a *war machine*, and this is why it is so significant for the purpose of this thesis – this is the creative operation of violence. There are, of course, other reasons why the war machine is so-named. As Patton points out, war may be a secondary function of the war machine, but given that nomadism and the war machine act as the outside, or Other, to the State form, when the war machine encounters striating State forms there is inevitable conflict.<sup>199</sup> Further, the war machine is integral to the formation of State warfare despite its externality to the State: it is only by means of the appropriation of the war machine – an appropriation that is always partial, always troublesome – that the State comes to be capable of the creative violence that marks war.<sup>200</sup>

The ways in which the war machine *makes violence durable* results from particular tendencies Deleuze and Guattari identify in assemblages associated with the war machine, tendencies that can elaborate further a spatial vocabulary useful for analysing violence. Deleuze and Guattari discuss these tendencies in a number of contexts, although this section of the thesis focuses on just two.<sup>201</sup> Firstly, it discusses the spatial tendencies of the war machine, that is the creation and occupation of

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<sup>198</sup> Deleuze et al., *A Thousand Plateaus*, 494, 437 (emphasis added).

<sup>199</sup> Patton, *Deleuze and the Political*, 114.

<sup>200</sup> Deleuze et al., *A Thousand Plateaus*, 391-93. See, also, Reid, “Deleuze’s War Machine,” especially 65-67.

<sup>201</sup> Other ways in which Deleuze and Guattari illustrate the tendencies of the war machine are through the numbering principles of nomadism, and the distinction between ‘nomadic’ and Royal science. See, in particular, Deleuze et al., *A Thousand Plateaus*, 432-33, 400.

smooth as opposed to striated space; the qualities of movement and speed. Secondly, it discusses the elaboration of these tendencies with respect to the difference between the assemblages of the weapon and the tool.

### **Smooth and striated spaces: absolute and relative movements, measure and rhythms**

The ways in which assemblages smooth and striate space are integral to understanding Deleuze and Guattari's conceptualisation of the operation of violence. The kind of violence associated with nomadism and the war machine (creative, durable violence) cannot be separated from the kind of space which is being produced. Alterations in one are alterations in the other. This is not an issue of causation, as in Foucault, where power/knowledge/space establishes the conditions of possibility for the exercise of violence. Rather, this is the complication (enrolment) of space and violence in the same assemblage. The following section explores the relation between the competing abstract machines (the State and the war machine) and violence through identifying the spatial qualities, the kind of movement and the rhythm of each machine's operation. Each of these elements adds to our understanding of the operation of violence, with violence in smooth space (violence that smoothes space) engaged in an essentially creative and open form of the exercise of force, something that the State manages to coopt only partially. Deleuze and Guattari's argument provides a non-humanistic account of the introduction of qualitative change in violence and through violence. Therefore, the following section outlines both a vocabulary for describing a relationship between violence and spatialising practices, and poses a properly politicised question that underlies the following thesis: how can US military developments, from Vietnam to the Revolution in Military Affairs, be seen in terms of the State's appropriation of the war machine?

Deleuze and Guattari distinguish between two kinds of space that are created through and for two opposed forms of abstract machine, the State and the war

machine.<sup>202</sup> On the one hand, the State is associated with the production of *striated*, or metric, space. This is the linear, Euclidean space with which science is so familiar. It is the space of points and solids: space as measured out “in order to be occupied.”<sup>203</sup> As Marcus Doel insightfully points out, it is a space with which many so-called postmodern geographers of networks are as familiar as traditional geographers of solid entities such as States, seas, regions, and continents:

Both the ‘old’ and the ‘new’ ways of dealing with space – rigid and fluid spaces, gridded and networked spaces, absolute and relative-cum-relational spaces, Euclidean and non-Euclidean spaces, abstract and lived spaces – invariably rest upon an inconsistent, unbecoming, and ill-mannered image of thought: *pointillism*.<sup>204</sup>

Striated space, resting on the *point* (the vanishing point of perspective, the (0,0) point at the meeting of the *x* and *y* axes, the nodes of a network), stands in contradistinction to smooth space, which is the space of the nomad (and the war machine). As Deleuze and Guattari describe the importance of *lines (vectors)* rather than points in the life of the nomad:

A path is always between two points, but the in-between has taken on all the consistency and enjoys both an autonomy and a direction of its own. The life of the nomad is the intermezzo. Even the elements of his dwelling are conceived in terms of the trajectory that is forever mobilizing them.<sup>205</sup>

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<sup>202</sup> This distinction does not imply that the two spaces exist alone, independent of one another.

We must remind ourselves that the two spaces in fact exist only in mixture: smooth space is constantly being translated, transversed into a striated space; striated space is constantly being reversed, returned to smooth space. In the first case, one organizes even the desert; in the second, the desert gains and grows; and the two can happen simultaneously.

Deleuze et al., *A Thousand Plateaus*, 524.

<sup>203</sup> Deleuze et al., *A Thousand Plateaus*, 399.

<sup>204</sup> Marcus A. Doel, “Unglunking Geography: Spatial Science After Dr Seuss and Gilles Deleuze,” in *Thinking Space*, ed. Mike Crang and Nigel Thrift, 117-35 (London: Routledge, 2000), 125 (emphasis original).

<sup>205</sup> Deleuze et al., *A Thousand Plateaus*, 419.

Unlike striated space, smooth space is not measured or counted (“space is occupied without being counted”), rather the nomadic assemblage distributes people (and animals, dwellings, oases) in such a way as to create a space that cannot be ‘parcelled’ up but only moved through.<sup>206</sup> The nomadic assemblage (which includes/produces the nomads and their movements) produces a smooth space in which the nomad can live and move:

The nomads are there, on the land, wherever there forms a smooth space that gnaws, and tends to grow, in all directions. The nomads inhabit these places; they remain in them, and they themselves make them grow, for it has been established that the nomads make the desert no less than they are made by it. They are vectors of deterritorialization. They add desert to desert, steppe to steppe, by a series of local operations whose orientation and direction endlessly vary.<sup>207</sup>

Note that the nomads are not *agents* creating smooth space through demarcation and appropriation, but *vectors* that occupy (and extend) a space through their movement. Their mode of operation is as part of an assemblage that is pulled together through the affective affinities of a particular kind of movement. This is the movement Deleuze and Guattari call “absolute” movement, where the movement is not relative to one point (the beginning) or another (the end), but refers instead to the “absolute state of a moving body occupying a smooth space.”<sup>208</sup>

Such absolute movement has a peculiar relationship to the traditional conception of war. Where Clausewitz famously coined the aphorism that war is the pursuit of politics by other means, Deleuze and Guattari note that Clausewitz actually views war (violence) as a ‘pure Idea’ (a force distinct from Clausewitz’s limited conception of politics) that is then *submitted* to State aims, and for which States are better or worse

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<sup>206</sup> Deleuze et al., *A Thousand Plateaus*, 399, 420.

<sup>207</sup> Deleuze et al., *A Thousand Plateaus*, 421.

<sup>208</sup> Deleuze et al., *A Thousand Plateaus*, 426.

conductors.<sup>209</sup> Thus, according to Deleuze and Guattari, the absolute war that Clausewitz warns of as inherent in the tendencies of war-making is not the 'total war' of the 20<sup>th</sup> century:

Rather absolute war is different from both limited and total war because it is not necessarily conditioned by a relation between reason and violence.<sup>210</sup>

Absolute movement, then, is the movement associated with such 'absolute' war: movement is not relative to distinct tactical and strategic (in other words, striated) spaces, but is experienced fluidly, as part of a vector of total, creative violence.

Absolute movement is one of the characteristics identified by Deleuze and Guattari as marking the possibility of open, experimental violence, a violence not determined through the agency of the State (or even the nomad), but which is implicated in an ongoing differentiation of both the 'agent' and the violence.

Enrolment in assemblages producing smooth space in war, as in all assemblages, is unwitting, and often unpleasant. It is not violence that can necessarily be subordinated to reason or purpose. Open and experimental it may be, but its 'success' is judged on its own terms, according to its own affective 'logic.' To take a highly specific example, Herman Rapaport identifies this kind of absolute movement in the behaviour of the US military during the Vietnam War (when helicopters were famously compared to the horses of cavalry), where their military strategy was unwittingly (unwillingly) 'deterritorialized' by the Viet Cong.<sup>211</sup> By refusing the United States' (striated) teleology of war ('battles culminate in victory or defeat'), refusing their combative purpose ('all battles have strategic meaning'), the Viet Cong denied the US the ability to striate the space of Vietnam according to strategic logic, leaving

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<sup>209</sup> Deleuze et al., *A Thousand Plateaus*, 463. This has been elaborated further, see, Reid, "Deleuze's War Machine," 67-71.

<sup>210</sup> Reid, "Deleuze's War Machine," 70.

<sup>211</sup> Herman Rapaport, "Vietnam: The Thousand Plateaus," *Social Text* 9/10 (1984): 138-39.

the country amorphous and impenetrable to the military assemblage. Unable to control space through its space, the US military acted as nomads might, but could not accept that such an approach would never lead to victory as defined in State terms of reason and control. As Rapaport describes it:

[Civilians taken for interrogation] were eventually let go, dead or alive, only to face relocation again as refugees, perhaps even after the fall of Saigon, an activity that mimicked the soldiers who were suddenly 'dropped' in various 'strategic' zones, pulled out, living, wounded, or dead, rested for a time, and 'dropped' somewhere else, some place detached from every other place, shuttled back to base or left in the field (who knew where?) in that land without places, that body devoid of any real parts.<sup>212</sup>

Absolute movement then, but not by choice and, unwilling (or unable) to occupy smooth space as absolute movement, and to accept the ensuing political consequences, the US floundered in ways that are familiar to all.

The affective capacities of the movements of smooth and striated space are tied closely to their *rhythms*. As Deleuze and Guattari argue in relation to the rhythm of the war machine:

This element of exteriority ... will give time a new rhythm: an endless succession of catatonic episodes, or fainting spells, and flashes or rushes.<sup>213</sup>

Rhythm, Deleuze and Guattari note, is "never the same as measure."<sup>214</sup> Whereas Lefebvrian rhythms are demarcated as cyclical or linear, with change emerging through repetition, for Deleuze and Guattari rhythm is not primarily understood through repetition, but in terms of whether or not the rhythm is responding to *measure*.<sup>215</sup>

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<sup>212</sup> Rapaport, "Vietnam: The Thousand Plateaus," 140.

<sup>213</sup> Deleuze et al., *A Thousand Plateaus*, 393.

<sup>214</sup> Deleuze et al., *A Thousand Plateaus*, 401.

<sup>215</sup> Measure in music is a form of striation – even the word implies metration, counting, demarcation.

There is indeed such a thing as measured, cadenced rhythm, relating to the coursing of a river between its banks or to the form of a striated space; but there is also a rhythm without measure, which relates to the upswell of flow, in other words, to the manner in which a fluid occupies a smooth space.<sup>216</sup>

Deleuze and Guattari engage in a detailed discussion of the importance of rhythm as part of the war machine in their elaboration of Paul Virilio's argument relating to the *fleet-in-being*.<sup>217</sup> Here, we see how rhythm can alter with the striation and smoothing of space, and how, paradoxically, 'complete' State striation of the sea could result in a State-entity, the fleet, that is capable of absolute movement – of smoothing space.

For Deleuze and Guattari, the sea might be seen as a smooth space par excellence, difficult to demarcate, impossible to control (certainly without technologies and sciences capable of understanding its operation). However, they describe how the State, on encountering the sea, operated as a force of striation. This process is difficult and historically specific, involving an entire scientific and commercial apparatus:

The commercial cities participated in this striation, and were often innovators; but only the States were capable of carrying it to completion, of raising it to the global level of a 'politics of science.' A *dimensionality* that subordinated *directionality*, or superimposed itself upon it, became increasingly entrenched.<sup>218</sup>

Hence the sea was striated by counting, ordering, and measuring that which was unknown and had been unknowable ("with ... fixed routes, constant directions, relative movements, a whole counter-hydraulic of channels and conduits").<sup>219</sup> Yet according to Virilio, the striation of the sea, that ultimate victory of the State form over smooth space, had unexpected results:

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<sup>216</sup> Deleuze et al., *A Thousand Plateaus*, 401.

<sup>217</sup> See, Paul Virilio, *Speed and Politics* (New York, NY: Semiotexte, 1986).

<sup>218</sup> Deleuze et al., *A Thousand Plateaus*, 529 (emphasis original).

<sup>219</sup> Deleuze et al., *A Thousand Plateaus*, 427.

The multiplication of relative movements, the intensification of relative speeds in striated space, ended up reconstituting a smooth space for absolute movement. As Virilio emphasizes, the sea became the place of the *fleet in being*, where one no longer goes from one point to another, but rather holds space beginning from any point: instead of striating space, one occupied it with a vector of deterritorialization in perpetual motion.<sup>220</sup>

That is, technological improvements in sea-faring, navigation and communications, not to mention the commercial and colonial assemblages in which the sea was involved, meant that State fleets actually came to form vectors of deterritorialisation, rather than to exist as points on established routes. Today, these fleets no longer occupy points (go from place to place), rather they roam the sea. This is exemplified in “the perpetual motion of the strategic submarine,” which must terrorise nuclear opponents through occupying *any territory at all* (occupying territory without counting it), rather than a specific point which might be countermanded.<sup>221</sup> Violence goes from being controlled and subject to reason, to being open and creative (and absolute – think *Dr Strangelove* writ large).

We have here the rhythmic composition of an assemblage (striated space, counted and measured, assembled through the rhythm of the fixed movement, cyclical returns and so on) altering such that the rhythm no longer responds to the *measure* of the sea’s striation. This example illustrates a number of the key features of Deleuze and Guattari’s conception of smooth and striated space, including the role of measure and rhythm, and the capacities of the State contra the war machine. The assemblage now responds to the rhythm of the “vortical movement that can rise up at any moment” – that is, the assemblage responds to the rhythm of *becoming* found in smooth space, and in so doing *produces* smooth space.<sup>222</sup>

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<sup>220</sup> Deleuze et al., *A Thousand Plateaus*, 427 (emphasis original).

<sup>221</sup> Deleuze et al., *A Thousand Plateaus*, 530.

<sup>222</sup> Deleuze et al., *A Thousand Plateaus*, 401.

What is this vortical movement that has altered the rhythm of (what we can loosely term) the State-sea assemblage, that is, that has produced qualitative difference? It is not simply the vortical movement of 'the sea,' whose movement had been happily 'non-vortical' in the context of 'predictable' (striated) trade routes for hundreds of years. Rather it is the vortical movement of the sea *as enrolled in an assemblage* with the faster, more mobile, more independent (and into the 20<sup>th</sup> century, better co-ordinated through radio) ships and submarines of the great State naval apparatuses ("the multiplication of relative movements, the intensification of relative speeds"). The alteration of rhythm is a result of the changing composition of the assemblage, warning again of the ephemerality of the assemblage as an object of study. The *fleet-in-being* is the successful appropriation of the war machine by the State in the context of the seas, the appropriation of the war machine's production of smooth space, paradoxically of course "for the purpose of controlling striated space more completely."<sup>223</sup>

This discussion opens a way for thinking of the emergence of qualitative difference in violence, but it does not explain the assertion made previously, that the privileged relation of smooth space to the war machine makes violence durable. Smooth space produces/is produced by particular qualities of absolute movement and fluid rhythms (those without measure), qualities that help describe the organisation of particular manifestations of (creative) violence, manifestations that have been both successful (on the sea) and unsuccessful (in Vietnam) from the perspective of the State. The following is an elaboration of the tendencies of weapon-assemblages as opposed to tool-assemblages indicates the way in which smooth space has the ability to prolong the moment of violence, thus making it durable. This durability helps explain the constant impetus to alter, to change. This section also

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<sup>223</sup> Deleuze et al., *A Thousand Plateaus*, 530.

provides a series of markers for identifying an assemblage's tendency with respect to the war machine and the State (the war machine tends to enrol weapons, the State tends to enrol tools). Further, it gives a more complicated account of the continual interplay between weapons and tools – an interplay that points to the political significance of assemblages as the State apparatus appropriates and is appropriated by the war machine.

### **Weapon-assemblages: projection, speed, affect**

It is the machine that is primary in relation to the technical element: not the technical machine, itself a collection of elements, but the social or collective machine, the machinic assemblage that determines what is a technical element at any given moment, what is its usage, extension, comprehension, etc.<sup>224</sup>

Deleuze and Guattari offer an extended analysis of the differential tendencies of the assemblages in which tools and weapons are enrolled/made. As they note, however, a tool can become a weapon and a weapon can become a tool. In fact, it is the continual interaction of the State form and the war machine in constituting these tool or weapon assemblages that sees their functioning as *politically vital* (differentiating, creative of difference), rather than stale and pre-determined:

The man of war may at times form peasant or worker alliances, but it is more frequent for a worker, industrial or agricultural, to reinvent a war machine. Peasants made an important contribution to the history of artillery during the Hussite wars, when Zizka armed mobile fortresses made from oxcarts with portable canons. *A worker-soldier, weapon-tool, sentiment-affect affinity marks the right time, however fleeting, for revolutions and popular wars. There is a schizophrenic taste for*

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<sup>224</sup> Deleuze et al., *A Thousand Plateaus*, 439.

*the tool that moves it away from work and toward free action, a schizophrenic taste for the weapon that turns it into a means for peace, for obtaining peace.*<sup>225</sup>

Deleuze and Guattari identify at least five tendencies that distinguish weapons-assemblages (as part of the war machine) from tool assemblages (as part of the State). Firstly, Deleuze and Guattari identify the *direction* of weapons as one of *projection*.<sup>226</sup> This is not merely true of ballistic weapons, but also of weapon assemblages such as the horseback rider. Here, Deleuze and Guattari note that the horseback rider-as-warrior is distinct from the horseback rider-as-hunter because of the *mode* of his direction:

Whereas in the hunt the hunter's aim was to *arrest the movement* of wild animality ... what the warrior borrows from the [hunted] animal is more *the idea of the motor* than the model of the prey. He does not generalize the idea of the prey by applying it to the enemy; he abstracts the idea of the motor, applying it to himself.<sup>227</sup>

Absolute speed, then, is the driver of the war machine. The weapon projects, whereas the tool introspects, "prepares matter from a distance, in order to bring it to a state of equilibrium."<sup>228</sup> It is in projection that violence can be made durable.

For example, Deleuze and Guattari identify the animal breeding and training undertaken by the nomads as a distinct mode of capturing and conserving the projective capacity of the animal, prolonging this capacity, orienting it, and provoking it in turn.

Animal breeding and training are not to be confused either with the primitive hunt or with sedentary domestication, but are in fact the discovery of a projecting and projectile system. Rather

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<sup>225</sup> Deleuze et al., *A Thousand Plateaus*, 444 (emphasis added).

<sup>226</sup> Deleuze et al., *A Thousand Plateaus*, 436-38.

<sup>227</sup> Deleuze et al., *A Thousand Plateaus*, 437 (emphasis added).

<sup>228</sup> Deleuze et al., *A Thousand Plateaus*, 436.

than operating by blow-by-blow violence, or constituting a violence 'once and for all,' the war machine, with breeding and training, institutes an entire economy of violence, in other words, a way of making violence durable, even unlimited. ... *The economy of violence is not that of the hunter in the animal raiser, but that of the hunted animal.* ... Whence becoming-animal in the war machine.<sup>229</sup>

Violence in this assemblage must be seen as ongoing and creative: the "becoming-animal" of the war machine is precisely its ongoing alteration, an alteration driven on (projected) by the captured (but not constrained or controlled) energy of the hunted animal.

State appropriations of the war machine tend to bring this projection inward, controlling speed and making it relative. These assemblages add weight and gravity in the form of defensive and attacking postures, and by striating space such that "opposing forces can come to an equilibrium."<sup>230</sup> This bears comparison with Foucault's account of the careful composition of forces in 18<sup>th</sup> century battles, or to the lines in World War I that had to be held according to a strategic logic that defied the lived comprehension of bodies on the ground.<sup>231</sup> It is telling that in the 18<sup>th</sup> century, the 'wild Cossacks' (feared by their own commanders for disrupting the careful balance of forces) were drawn from a social structure of semi-nomadic origin – their horsemanship was an act of projection disrupting/enacting a war machine the State was attempting to tightly control.<sup>232</sup>

The distinction between the appropriated (State) and the 'out of control' war machine helps mark the second differential tendency that Deleuze and Guattari use to

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<sup>229</sup> Deleuze et al., *A Thousand Plateaus*, 437 (emphasis original).

<sup>230</sup> Deleuze et al., *A Thousand Plateaus*, 438.

<sup>231</sup> See n. 102, above.

<sup>232</sup> For a discussion of the Cossacks in eighteenth century military forces, see, Duffy, *The Age of Reason*, 271, 274-75.

distinguish between weapons-assemblages and tools-assemblages, that of *speed* versus *gravity*. The relationship between speed and gravity, as in the case of the relationship between smooth and striated space generally, is one of altering/alterable tendencies. In World War I, for example, it was the striation of space by the State form, and the State form's abstraction of speed as a 'property' of projectiles (rather than a creative form) that created immobility and deadlock (gravity). However, as Deleuze states:

it was the tank that regrouped all of the operations in the speed vector and recreated a smooth space for movement by uprooting men and arms.<sup>233</sup>

In fact, the tactical use of tanks was initially conceived of in explicitly naval terms, recreating a 'smooth' space akin to the sea across which a mechanised army might travel "barely hindered by either geography or logistics."<sup>234</sup>

The third tendency that differentiates weapons-assemblages from tools-assemblages is what Deleuze and Guattari call the "model."<sup>235</sup> Here, they are referring specifically to two ideal models of the motor: one of *work* and one of *free action*. Work is the linear repetition of energy expenditure, and the tool's function is relative displacement of the point of effort according to the laws of gravity.<sup>236</sup> We see here echoes of Lefebvre's analysis of capitalist production as "the linear repetitive."<sup>237</sup> By contrast free action is the "vortical occupation of a space that constitutes the absolute movement of the weapon."<sup>238</sup> This is not to credit the weapon with "a magical power

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<sup>233</sup> Deleuze et al., *A Thousand Plateaus*, 438.

<sup>234</sup> Gat, *History of Military Thought*, 549. Indeed, one of the great British strategic thinkers of tank warfare, J.F.C. Fuller, would enter and "outrageously" win the Naval Prize Essay competition in 1920. Gat, *History of Military Thought*, 549. See, also, Deleuze et al., *A Thousand Plateaus*, 626 n. 76.

<sup>235</sup> Deleuze et al., *A Thousand Plateaus*, 444.

<sup>236</sup> Deleuze et al., *A Thousand Plateaus*, 438.

<sup>237</sup> Lefebvre, *Everyday Life*, Vol. II, 340.

<sup>238</sup> Deleuze et al., *A Thousand Plateaus*, 438.

in contrast to the constraints of tools,” rather it is to say that the weapon acts: “as though [it] were moving, self-propelling, while the tool is moved.”<sup>239</sup>

The tool is essentially tied to a genesis, a displacement, and an expenditure of force whose laws reside in work, while the weapon concerns only the exercise or manifestation of force in space and time, in conformity with free action.<sup>240</sup>

The fourth tendency relates to the *form of expression*. Deleuze and Guattari note that weapons-assemblages tend to express themselves outside of traditional semiotic systems, particularly in the quintessential nomadic form of art, *jewelry*-making, which conveys meaning through an “affective semiotic.”<sup>241</sup> This stands in opposition to tools, which tend to find expression through systems of *signs*, of which writing is but the ultimate and most coherent expression.<sup>242</sup> This tendency is an expression of the final tendency identified by Deleuze and Guattari, the “passional or desiring tonality” of an assemblage.<sup>243</sup> In Deleuze-Guattarian thought, the passions are both what drive and emerge from the process of assembling, yet ‘the passions’ are not themselves undifferentiated:

Passions are effectuations of desire that differ according to the assemblage: it is not the same justice or the same cruelty, the same pity, etc.<sup>244</sup>

In particular, Deleuze and Guattari identify the weapons-assemblage as mobilising *affect*, while the tool-assemblage mobilises *feelings*. According to Massumi, feelings (emotions) can be distinguished from affect (intensity) in the following way:

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<sup>239</sup> Deleuze et al., *A Thousand Plateaus*, 439, 438.

<sup>240</sup> Deleuze et al., *A Thousand Plateaus*, 439.

<sup>241</sup> Deleuze et al., *A Thousand Plateaus*, 444.

<sup>242</sup> Deleuze et al., *A Thousand Plateaus*, 443-44.

<sup>243</sup> Deleuze et al., *A Thousand Plateaus*, 444.

<sup>244</sup> Deleuze et al., *A Thousand Plateaus*, 441.

An emotion is a subjective content, the sociolinguistic fixing of the quality of an experience *which is from that point onward defined as personal*. Emotion is qualified intensity, the conventional, consensual point of insertion of intensity into semantically and semiotically formed progressions, into narrativizable action-reaction circuits, into function and meaning. It is intensity owned and recognized.<sup>245</sup>

Emotion is strongly associated with the individual subject, while affects are impersonal: not in the sense of a ‘mob mentality,’ but rather as an excess of ‘feeling’ over content. However there is no barrier between the two. Affects ‘become’ emotion when enrolled in “semantically and semiotically formed progressions”; emotions can be enrolled into affective assemblages through mutual sympathies.<sup>246</sup>

This interplay is particularly acute because of the State’s appropriation of the essentially affective form of the *warrior*. Unlike the warrior, the desiring tonality of a *worker* is that of feeling:

The work regime is inseparable from an organization and a development of Form, corresponding to which is the formation of the subject. This is the passionnal regime of feeling as ‘the form of the worker.’ Feeling implies an evaluation of matter and its resistances, a direction ... to form and its developments, an economy of force and its displacements, an entire gravity.<sup>247</sup>

When the State appropriates the war machine, it attempts to “assimilate the education of the citizen to the training of the worker to the apprenticeship of the soldier.”<sup>248</sup> That is, it attempts to make a *worker* from the man of war. This is what Foucault describes with the disciplining of the soldier, or, more precisely, the creation of the *militaire* from the *homme de guerre*.<sup>249</sup> Yet Foucault’s unwillingness to unfold the process in time, his unwillingness to acknowledge the existence of forces

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<sup>245</sup> Massumi, *Parables for the Virtual*, 28 (emphasis added).

<sup>246</sup> Massumi, *Parables for the Virtual*, 28.

<sup>247</sup> Deleuze et al., *A Thousand Plateaus*, 441.

<sup>248</sup> Deleuze et al., *A Thousand Plateaus*, 441.

<sup>249</sup> Foucault, *Discipline and Punish*, 168.

impersonal toward and uncaring of the *political* subject – forces, that is, of creative becoming – sees him stop his account short of allowing for the playful variability in Deleuze and Guattari.

It is in this context that Julian Reid differentiates Deleuze from Foucault in terms of their conceptualisation of the relationship between power and desire. For Foucault, desire is never exterior to power. Transgression, for example, is simply part of the power mechanism inciting desire. For Deleuze, on the other hand, while desire is not external to power, its *creative* force means that “power … incorporates the scope for societies to explore their productive potential of desire as a means to transform its systems.”<sup>250</sup> Acts of resistance may then be ‘futile,’ in the sense that creative becomings invoked by desire are ultimately reterritorialised through power, but this “does not undermine the purpose of their undertaking.”<sup>251</sup> This difference becomes significant with respect to war. For Deleuze and Guattari while the man of war may be disciplined into the form of a ‘soldier’ (worker), the worker *may also become a man of war as part of:*

... new figures of transhistorical assemblage (neither historical nor eternal, but untimely): the nomad warrior and the ambulant worker. A somber caricature already precedes them, the mercenary or mobile military adviser, and the technocrats or transhumant analysts, CIA and IBM. But transhistorical figures must defend themselves as much against old myths as against preestablished, anticipatory disfigurations. ‘One does not go back to reconquer the myth, one encounters it anew, when time quakes at its foundations under the empire of extreme danger.’ *Martial arts and state-of-the-art technologies have value only because they create the possibility of bringing together worker and warrior masses of a new type. The shared line of flight of the weapon and the tool: a pure possibility, a mutation.*<sup>252</sup>

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<sup>250</sup> Reid, “Deleuze’s War Machine,” 72.

<sup>251</sup> Reid, “Deleuze’s War Machine,” 74.

<sup>252</sup> Deleuze et al., *A Thousand Plateaus*, 445 (emphasis added).

It is in this light that we might look at the transformations of the RMA. Indeed, Eyal Weizman has already begun a military ethnography of the Palestinian-Israeli conflict in precisely these terms. Not only has he examined the logic of Israel's security policy through the spatiality of the built environment but he has also interviewed Israeli Defense Force strategists who *explicitly* draw on Deleuze-Guattarian language to form their tactical approach.<sup>253</sup> The IDF, considered one of the most 'networked' and advanced military powers, explicitly seeks to capture the creative powers of *projection* and *speed* through behaviours such as 'mouse holing' (literally walking through walls by blowing holes in the adjoining walls of houses inside the Palestinian territories, thus avoiding the striated spaces of the streets and alleys).<sup>254</sup> On discussion with a leading IDF general, Weizman notes that:

... his position is that the IDF must replace *presence* in occupied areas with the capacity to *move through* them, or produce in them what he calls "effects."<sup>255</sup>

Weizman notes the devastating effect violence of this kind has on Palestinian communities: the surgeon-like ability to remove walls – or entire floors – of buildings

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<sup>253</sup> Eyal Weizman, "Strategic Points, Flexible Lines, Tense Surfaces, Political Volumes: Ariel Sharon and the Geometry of Occupation," *The Philosophical Forum* 35, no. 2 (2004); Eyal Weizman, "Walking Through Walls" (paper presented at *Urbicide: the killing of cities*, Durham, November 24-25, 2005); Eyal Weizman, "Lethal Theory" (Center for Research Architecture, Goldsmiths College, University of London, 2006), <http://roundtable.kein.org/node/415>.

<sup>254</sup> Note that the speed of IDF operations is precisely the kind of absolute speed referred to by Deleuze and Guattari: in 'actual' terms (in 'counted' time), the tempo of operations can be slow, but it is the absolute speed of *becoming* rather than the relative speed of teleological time that is important to the IDF. Compare the following statement made by Weizman to that of Deleuze and Guattari:

In contrast to the traditional military paradigm, IDF operations in urban areas are not based on speed and do not seek fast and decisive results. Operations are days if not weeks long, and operate at a rather slow pace as the infiltrated forces spend most of their time waiting for opportunities or for the enemy to make mistakes.

Weizman, "Lethal Theory," 64.

The nomad knows how to wait, he has infinite patience. Immobility and speed, catatonia and rush, a 'stationary process,' station as process – these traits of Kleist's are eminently that of the nomad.

Deleuze et al., *A Thousand Plateaus*, 420.

<sup>255</sup> Weizman, "Lethal Theory," 60 (emphasis original).

does not make violence less ‘violent,’ rather it leads to the alteration of the Palestinian community’s way of life in entirely different ways.<sup>256</sup>

Here we see the *political* potential of Deleuze and Guattari’s conception of violence fulfilled. Violence in their account is organised as (part of) an assemblage, an assemblage that must be understood spatially. Importantly, the ‘kind’ of spatiality in which the assemblage is enrolled has important effects on the *nature* of the violence. The political potential lies in the constant possibility for assemblages to become-other, to become enrolled in different rhythms. It is important, however, that nomadic, creative expressions of violence are not confused with ‘better’ violence: it may be that creative violence upsets a tyrannical regime, or it may be that it renders further dysfunctional a persecuted community such as the Palestinians. The question is not ‘better’ or ‘worse’ violence, but rather a way of interrogating the different outcomes of different assemblages. To put it another way, the ethical impulse comes from ‘outside’ the critical process (as exemplified so vividly by the IDF’s appropriation of Deleuze and Guattari), but the *political* must be thought of in terms of the possibilising of becoming that results from the creative possibilities of affect.

Deleuze and Guattari offer a way of thinking the spatial operation of violence that provides possibilities for a politics of change. While the following chapter will ‘read down’ the scope of their claims, their articulation of a vocabulary for understanding the spatial operation of violence through the figure of the assemblage provides a highly important innovation that rounds out the accounts of the spatiality of violence given by Foucault and Lefebvre above.

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<sup>256</sup> Note that Israel’s recent incursions into Lebanon were markedly less successful in a context where their ability to project themselves was limited by both military and political realities, and the demand for speed in counted time was paramount.

## Conclusions

This chapter proposes that the operation of violence should not be understood in simply instrumentalist terms, but rather should be understood as a flexible and emergent process in which violence alters and is altered by its own conditions of possibility. It proposes that one way of gaining critical access to this process is through an examination of the *spatial* operation of violence, and proceeds to explore the ways in which space proffers such access.

The work of Michel Foucault illustrates how spatiality is crucially implicated in ordering power/knowledge relationships. While Foucault conceives of violence as derivative of power/knowledge, his examination of power/knowledge's expression through/implication in appropriate spatial relations opens a novel way of thinking about the organisation of violence. In particular, he establishes a vocabulary that can describe how violence is organised spatially. Foucault both effectively deconstructs subjectivity and identifies power/knowledge/space as establishing the limits of the conditions of possibility of the exercise of violence. In so doing, he makes it possible to break out of agent-centred and structuralist accounts of violence. That is, Foucault makes it possible to think meaningfully of a *spatial operation* of violence at all.

Henri Lefebvre, on the other hand, views space as emerging from a specific, repetitious temporality that defies teleological description. Lefebvre instead provides an account of difference as produced through a dialectical (involuted) process involving the concrete conditions of space (space as produced) and time (the repetitious everyday). He explores the emergence of this difference primarily in terms of the body, itself conceived of as a composition of competing rhythms (some 'passional,' others produced, others 'natural'). Through his rhythmanalysis, Lefebvre provides a vocabulary that can address the spatio-temporal operation of violence.

Lefebvre, then, is significant for injecting mutability into the spatial organisation of violence identified by Foucault.

For Gilles Deleuze (and Félix Guattari), the political impetus to think the ‘untimely’ is met through an examination of (spatial) assemblages, whose (desiring) composition enables an understanding of how the spatiality, mode of movement, and rhythmic composition of an assemblage can alter in a way that unleashes or contains the creative forces of violence. Violence is an assemblage in its own right, one whose appropriation by the State is never complete and always subject to transformation and the emergence of difference.

Utilising this conception, and the spatial vocabulary developed through the iterations of each author, this thesis examines the experimental practices of violence that have taken place in the US military’s intervention in Iraq. In this thesis, violence is experimental in three related senses. Firstly, it is experimental in that, like experimentation in the lab, it produces effects. Secondly, it is experimental in that these effects are not produced on demand, rather (as in the lab) an uncertainty of result is built into the generation of these effects. Finally, violence is experimental in that, although it is sufficiently stable to form the subject of inquiry, it comes and goes and may change its appearance along the way. The following chapter establishes a method for exploring the experimental practices of violence through their spatiality – a method which, it should be added, dramatically reduces the *scale* of inquiry.

## CHAPTER TWO

# A praxiography of the battlespace

Lighten our darkness. Deliver us this day from the obviousness of our simplicities.<sup>257</sup>

### What kind of real?

Let this chapter begin by reprising the account provided in the last, this time with a specific question in mind: what *kind* of real is being explored by Foucault, Lefebvre, and Deleuze? This may seem like a strange question. It may, in fact, be surprising to think of different ‘kinds’ of real: we are accustomed to thinking of the ‘real’ as ‘out there,’ independent from us, singular, definite.<sup>258</sup> The real is the real is the real, the Western scientific argument goes (though which science, which West, are perhaps questions we should ask): we may know it to better or worse degrees, but the ‘real’ itself – the stuff of which it is made – stays the same. Its nature is unchanging.

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<sup>257</sup> John Law, *Aircraft Stories: Decentering the Object in Technoscience* (Durham NC: Duke University Press, 2002), 62.

<sup>258</sup> John Law, *After Method: Mess in Social Science Research* (London: Routledge, 2004), 24-25.

Nevertheless, the previous chapter began, in a way, with an appeal to a different kind of real. It began with an assertion of *openness*, specifically an assertion of the openness of the organisation of violence. As noted, such an assertion flies in the face of conventional understandings of violence, where its organisation is not *open* at all, but is over-determined (by human agency, by social structures, even by anarchy). To undermine these conventional understandings of violence is to undermine our usual account of the real: a suggestion of openness undermines the singularity, the definiteness, the independence (from us, from our accounting) of the reality of violence. Nevertheless, despite the dangers associated with undermining such a persuasive and well-entrenched account of the real, the previous chapter began with the assertion that violence was not determined simply by agency and structures, but could *also* be understood as experimental, undetermined, and creative (note the ‘*also*’ – human agency, structures, anarchy, they all have their place in this story, albeit in rather changed forms).

Such an assertion is not entirely unprecedented. As is explored later in this chapter, there are now entire disciplines devoted to exploring *openness* in its many forms. Material semiotics in Science and Technology Studies (STS), nonrepresentational geography, cyborg feminism: all of these might have sympathy with an assertion of the openness of the organisation of violence. But these can be explored later. Firstly, and not least because it helps us to clarify what *openness* is, we must return to this deceptively simple question: ‘What kind of real?’

John Law fires the opening salvo in the possibilising of different ‘kinds’ of real when he points to a number of ‘things’ (he calls them “textures”) that (academic) accounts following conventional understandings of the real are not good at explaining:

Pains and pleasures, hopes and horrors, intuitions and apprehensions, losses and redemptions, mundanities and visions, angels and demons, things that slip and slide, or appear and disappear, change shape or don't have much form at all, unpredictabilities, these are just a few of the phenomena that are hardly caught by social science methods. ... If much of the world is vague, diffuse or unspecific, slippery, emotional, ephemeral, elusive or indistinct, changes like a kaleidoscope, or doesn't really have much pattern at all, then where does this leave social science?<sup>259</sup>

It is not hard to see how violence might flit among this list: as a pain, as a horror – but also as a mundanity, for example. How might we account for these ‘textures’ of violence? Must we disregard them altogether? Or is there some way of exploring the organisation of violence that can attempt to tell these stories *as well*?

In fact, the composition of this list (open as it is) leads one to wonder whether phrases like the ‘organisation of violence’ and the ‘spatial ordering of violence’ are entirely appropriate in a context that seeks to explore violence’s *openness*. If the *openness* of the world includes its slipperiness, its lack of specificity, its unpredictability, then perhaps this is too coherent. In fact, this is one of the primary arguments of this chapter. Analytical tools like ‘organisation’ still make a certain sense in the context of the accounts of the previous chapter (although at times these logics alter and distort), from here on in, following a more sustained exploration of different kinds of real, it will perhaps make more sense to think, at the very least, of ‘organisations,’ if not in terms of entirely different metaphors altogether. But again, this is a discussion for a later time. For, whatever the inadequacies, the inconsistencies, the incoherency (or, to be more accurate, the over-coherency) of the previous chapter’s accounts of violence, the previous chapter outlines – possibilises – a different kind of real.

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<sup>259</sup> Law, *After Method*, 2.

Spatial orderings, rhythmanalysis, machinic assemblages, differing though these accounts of a ‘spatial logic’ of violence are, share the same basic subversions of the ‘real’ as it is usually understood. This chapter outlines three themes of this alternate real and the methodological steps these authors take to attune themselves to this ‘kind’ of reality. It then explores the ways in which some contemporary social sciences (such as material semiotics and nonrepresentational geography) have elaborated more fully the methods that might assist in accessing alternative kinds of real.

A real that emerges through praxis: unglunking reality

It is Marcus Doel who turns our attention to the Glunk.<sup>260</sup> The Glunk is a creature that cannot be unthunk in Dr. Seuss’s classic tale, ‘The Glunk That Got Thunk,’ and serves as a useful thought experiment for challenging conventional understandings of ‘thing-ness.’ The Glunk is the ultimate ‘thing’: like the ‘real’ that is assumed to exist ‘out there,’ it is immune to the variegating influences of the Cat in the Hat (who once, it must be remembered, turned pink things blue). It may have been thunk, but the Glunk’s immutability once created defeats even the antics of the Cat in the Hat. Yet, on the brink of disaster, the Glunk is unthunk, thanks, as Doel notes, to the contingent alliance and joint action of the Cat in the Hat and his sister.<sup>261</sup>

In their own ways, Foucault, Lefebvre, and Deleuze all participate in unthinking the Glunk. In technical academic terms, they do this by decentring the subject, and decentring agency. In practical terms, they do this by examining how the world and everything in it (including subjectivity, including agency) emerges through practice.

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<sup>260</sup> Marcus A. Doel, "Unglunking Geography: Spatial Science After Dr Seuss and Gilles Deleuze," in *Thinking Space*, ed. Mike Crang and Nigel Thrift, 117-35 (London: Routledge, 2000); Dr. Seuss, *I Can Lick 30 Tigers Today! And Other Stories* (New York, NY: Random House Books for Young Readers, 1969).

<sup>261</sup> Doel, "Unglunking Geography," 118.

In particular, this is the fundamental insight of Foucault's power/knowledge/space: subjectivity, the seemingly intractable rules which order matter, and 'things' themselves, are what power/knowledge/space (*practice*) make of them.<sup>262</sup> There is no external, independent 'real.'<sup>263</sup> It is only *through* the historically specific, highly contingent interactions of power (itself a relation), knowledge (another relation), and space (a materiality, but certainly not a 'thing' – rather an altering and alterable condition of possibility), that man emerges as a political subject capable of action and being acted upon. The peculiarly modern formulation of this power/knowledge/space configuration that Foucault termed biopolitics, for example, rests precisely, on the one hand, on the capacity to invest in modern man a soul which makes it possible to address power to the body *as an individual* (as discussed in the previous chapter), and, on the other hand, on the new power/knowledge/spaces of the 'mass' population:

Western man was gradually learning what it meant to be a living species in a living world, to have a body, conditions of existence, probabilities of life, an individual and collective welfare, forces that could be modified, and a space in which they could be distributed in an optimal manner. For the first time in history, no doubt, biological existence was reflected in political existence ...<sup>264</sup>

This is what is meant by decentering the subject: no longer does the political subject sit at the centre of accounts, explaining action through its agency; rather, it is the political subject and agency itself that are taken to need explanation. In Foucault's account, then, the 'real' emerges through the practice of power/knowledge/space.

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<sup>262</sup> There is, of course, an excess of being over named existence in Foucault's account, as is explored in the following section.

<sup>263</sup> At least, not one that turns its "legible face" to us. See, Michel Foucault, "The Order of Discourse," in *Language and Politics*, ed. Michael Shapiro (Oxford: Oxford University Press, 1984), 127.

<sup>264</sup> Michel Foucault, *The Will to Knowledge: The History of Sexuality, Volume 1* (London: Penguin Books, 1998), 142.

Foucault expresses this insight further (albeit in rather abstract terms) when he describes the varying historical construction of what he terms the modes of being of order (termed here the ‘real’) as emerging out of the “pure experience of order” (practice):

Thus, between the already ‘encoded’ eye and reflexive knowledge there is a middle region which liberates order itself: it is here that [order] appears, according to the culture and the age in question, continuous and graduated or discontinuous and piecemeal, linked to space or constituted anew at each instant by the driving force of time, related to a series of variables or defined by separate systems of coherences, composed of resemblances which are successive or corresponding, organized around increasing differences, etc. This middle region, then, in so far as it makes manifest the modes of being of order, can be posited as the most fundamental of all . . . *Thus, in every culture, between the use of what one might call the ordering codes and reflections upon order itself, there is the pure experience of order and of its modes of being.*<sup>265</sup>

Admittedly, Foucault’s account of the emergence of the real through practice has been criticised for being overly ‘big.’ John Law, for example, argues that, “I am more optimistic [than Foucault] because I take it that the conditions of possibility do not necessarily come in large blocks.”<sup>266</sup> Despite this (apt) criticism, Foucault’s account of the real subverts traditional conceptions by accounting for the creation of subjectivity and agency, order (spatial and otherwise), and things themselves, through the social *practice* of the time.

In fact, if the work of Foucault is taken to its logical conclusion, then this ‘real’ multiplies: unlike in Foucault’s ‘big picture’ accounts, small-scale examination illustrates that practices of power/knowledge/space are not singular, nor are they universal.<sup>267</sup> As Annemarie Mol has shown so effectively, using Foucault as a starting

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<sup>265</sup> Michel Foucault, *The Order of Things* (London: Routledge Classics, 2002), xx-xxi (emphasis added).

<sup>266</sup> Law, *Aircraft Stories*, 53.

<sup>267</sup> Annemarie Mol, *The Body Multiple: Ontology in Medical Practice* (Durham: Duke University Press, 2002), 66.

point, even in a supposedly singular context (a particular hospital) the emergence of a real body, a real disease, is in fact the emergence of multiple reals out of the multiplicity of practices.<sup>268</sup> This is not a simple statement that there are many perspectives on a singular real body, or a singular real disease, but an argument that there are many reals that are lived and experienced. To use Mol's subject of inquiry, atherosclerosis in the patient at home is pain in the leg, while in the laboratory it is plaque coating the walls of the arteries. The two realities are overlapping but distinct. Decentring the subject and decentring agency through examining practice can therefore lead to an acknowledgement of the multiple nature of the real if careful attention is paid to the specificities of practice – a point made later in this chapter with respect to establishing an appropriate methodology.

In contrast to Foucault, Lefebvre's emphasis on the emergence of the real through practice is less concerned with the production of subjectivity and focuses more explicitly on the way in which other aspects of the real are usually assumed to exist unproblematically, such as space, time, and everyday life. However, as we are reminded in the following sections, Lefebvre's account is not a simple Marxist account, in which the real emerges through abstract and *over-determined* processes of production that are structured by the dictates of (teleological) 'history.' Rather, Lefebvre offers an account that allows for the contingency and *openness* of practice, particularly as a result of the complicated and recursive nature of his understanding of the *dialectique de triplicité*. As a result of this perspective, Lefebvre's method, particularly his rhythmanalysis, emphasises exploring practice to access the real. He does this in a specific way: where Foucault largely emphasises historical analysis of institutions and how they work, Lefebvre conducts a micro-scale analysis of the

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<sup>268</sup> Mol, *The Body Multiple*.

bodily practices of everyday life. In fact, both are commonly used ways of exploring the emergence of reality through practice.

Similarly, the influence of Deleuze and Guattari's conception of the assemblage on academics seeking to explore the emergence of the real through practice has been enormous.<sup>269</sup> Assemblage as a concept denies any form of essentialism, arguing that *all things* (people, things, animals) gain meaning, purpose, and form through their enrolment in material assemblages. Its use highlights an important step in critical social scientific inquiry when the real is seen as emerging through practice: assemblages force a move from the prevailing social scientific emphasis on studying *representations* or *meanings* of the real (often through structural or agent-centred accounts). This emphasis has implied that meaning is somehow ontologically superior to other aspects of the real (such as spatiality, temporality, and material form). Assemblage undermines this by showing that meaning (and its correlates, agency and structure) emerges through practice alongside spatiality, temporality, and materiality, thus nothing is ceded ontological precedence. Assemblage as a method, then, is a way of keeping such structuralism at bay. As Marcus and Saka put it:

Indeed, the term [assemblage] itself in its material reference invests easily in the image of structure, *but is nonetheless elusive*. The time-space in which assemblage is imagined is inherently unstable and infused with movement and change. Assemblage thus seems structural, an object with the materiality and stability of the classic metaphors of structure, but the intent in its aesthetic uses is precisely to undermine such ideas of structure. It generates enduring puzzles about 'process' and 'relationship' rather than leading to systematic understandings of these tropes of classical social theory.<sup>270</sup>

The puzzles raised by the radical anti-essentialism of Deleuze and Guattari's conception of assemblage are further explored in the following section, which

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<sup>269</sup> See, George E. Marcus, and Erkan Saka, "Assemblage," *Theory, Culture & Society* 23, no. 2-3 (2006).

<sup>270</sup> Marcus et al., "Assemblage," 102 (emphasis added).

addresses in more detail the complicated relationship between matter and meaning found in alternative accounts of the real.

The commingling of matter and meaning: the necessary existence of mess, multiplicity, and resistance

If the 'real' emerges through practice in these accounts, then practice is understood both more generously and more stringently than might be expected. On the one hand, the understanding is more stringent in the sense that (despite a common criticism of this perspective) such accounts are saying neither that *any* real can be constructed through practice nor that it is 'easy' to create the real.<sup>271</sup> It takes constant work for practice to create the real, and practice is still constrained, still limited in what it can produce (think of Foucault's aphasiac, limited by the spatiality of the table). On the other hand, the understanding is more generous because practice is not limited to the practice of *humans*, as is often the case in social scientific study, but rather incorporates the inhuman, and even the inorganic.

Practice is a nuanced concept, one that does not place materiality outside the scope of the social production of the meaning of material forms, but at the same time allows for the independent operation of materiality in ways that are undetermined by meaning. This, then, is the second theme that ties together the authors' subversion of traditional notions of the 'real.' These authors, to appropriate Lorraine Daston's formulation, "take it for granted that things are simultaneously material and meaningful. [They] assume that matter constrains meaning and vice versa."<sup>272</sup>

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<sup>271</sup> Law, *After Method*, 7-8.

<sup>272</sup> Lorraine Daston, "Speechless," in *Things That Talk: Object Lessons From Art and Science*, ed. Lorraine Daston, 9-24 (New York, NY: Zone Books, 2004), 17.

Daston usefully situates this matter versus meaning debate in the context of competing approaches to the history of science. These tend to side with one or the other of matter and meaning, but fail to comprehend the importance of both. For example, traditional historians of science “have long assumed [things] to be as inexorable and universal as nature itself, ... the history of science has traditionally been narrated as just as inexorable and universal.” This is an account of the triumph of matter over meaning. On the other hand, new studies “emphasize the local character and cultural specificity of natural knowledge,” promoting the supremacy of meaning (however it is formulated – discourse, representations of matter, power/knowledge) over matter.<sup>273</sup> The position proposed by Daston, and endorsed by Foucault, Lefebvre, and Deleuze, as well as by this thesis, is that the truth lies somewhere in the middle.

For Foucault and Lefebvre, this is most apparent in their discussions of the body. The body is a site of both meaning (discursive construction through power/knowledge/space) and (material) resistance (remember Lefebvre’s description of the female body “which occasionally fainted, in order subsequently to *rebel*.”)<sup>274</sup> The excessive (material) qualities of the body have been well-explored in cultural and feminist studies.<sup>275</sup> While Foucault and (to a lesser extent) Lefebvre have been criticised for not fully exploring these excessive qualities, implicit, and occasionally explicit, in their accounts is the body’s capacity to *disrupt* the orderings (the *meanings*) imposed on it from ‘outside.’ Kirsten Simonsen offers a compelling reading of Lefebvre in this context. After firstly noting the generosity of Lefebvre’s

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<sup>273</sup> Daston, “Speechless”, 17, 15.

<sup>274</sup> Henri Lefebvre, *Rhythmanalysis: Space, Time and Everyday Life* (London: Continuum, 1992), 42 (emphasis original).

<sup>275</sup> See, in particular, Gail Weiss, *Body Images: Embodiment as Intercorporeality* (New York, NY: Routledge, 1999); Jackie Stacey, *Teratologies: A Cultural Study of Cancer* (London: Routledge, 1997); Mark B. N. Hansen, *Embodying Technesis: Technology Beyond Writing* (Ann Arbor, MI: University of Michigan Press, 2000).

conception of the practice that leads to our experience of the body, she argues that in Lefebvre the attempts of meaning to deprive materiality of all forms of independent expression are consistently denied by the body.<sup>276</sup>

Theoretically, then, the body serves both as point of departure and as destination. It is an intrinsic part of the 'lived experience' – an experience that in modernity, from Lefebvre's point of view, is exposed to a tendency to be drained of all content by mechanisms of language, signs and abstractions, but which cannot be totally erased. As part of the lived experience, the body constitutes a practico-sensory realm in which space is perceived through smells, tastes, touch and hearing as well as through sight. It produces a space which is both biomorphic and anthropological.<sup>277</sup>

Matter and meaning intertwined – resistance, mess, multiplicity, all afforded a place in this alternative real when matter refuses to be determined by meaning. Lefebvre, Foucault, and scholars inspired by them explore these complications (which are fissures in the conditions of possibility) through attending to the body.

Deleuze and Guattari's account of assemblages looks beyond the body but nonetheless locates an *excess of being* that operates alongside structure or meaning in forming the real. This occurs in two ways. Firstly, the very nature of the assemblage does not leave room for the supremacy of structure (meaning) over materiality. This is because materiality gives rise to (and emerges from) the assemblage that gives rise to (and emerges from) structures and agency. For example, the recursive interaction of the materiality of the desert with the social structure of the nomad is not the interaction of two separate systems but a *single entity*: there is simply no conceptual

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<sup>276</sup> On Lefebvre's conception of practice, Simonsen notes that:

Lefebvre's interest in the body is founded on a conception of practice that is complex, open-ended and holding many dimensions. It relates to nature, to the past and to human possibilities, and it ranges in scale from gestures and corporeal attitudes, over everyday activities, to overall social practice in the economic and social spheres.

Kirsten Simonsen, "Bodies, Sensations, Space and Time: The Contribution By Henri Lefebvre," *Geografiska Annaler: Series B Human Geography* 87, no. 1 (2005): 2.

<sup>277</sup> Simonsen, "Bodies, Sensations, Space and Time," 4.

space for an accounting of the real that prioritises meaning over materiality (or vice versa).<sup>278</sup>

This makes possible entirely new ways of thinking the recursive and complicated relationships between what we might (at least partially artificially) designate as ‘matter’ or ‘meaning.’ These ways move beyond the matter-as-resistance model with which we are familiar, rather matter and meaning are bound together in ways that exceed accounts of the stubborn resistance or total subordination of matter to meaning. For example, in their “Treatise on Nomadology,” Deleuze and Guattari describe the operation of the nomadic (or ambulant) sciences, particularly as exemplified in metallurgy. These sciences, as opposed to royal science, are not simply resisted (messed up) by materiality, but are in fact *driven* by material singularities. As Deleuze and Guattari argue:

Due to all their procedures, the ambulant sciences quickly overstep the possibility of calculation: they inhabit the ‘more’ that exceeds the space of reproduction and soon run into problems that are insurmountable from that point of view; they eventually resolve those problems by means of a real-life operation.<sup>279</sup>

Nomadic sciences are incapable of codification, or of being made autonomous of the materialities in which they are exercised. Unlike royal science, they do not attempt to subordinate the operation of materiality to abstract, homogenous laws of nature. They exist in the ‘more’ beyond meaning, and:

... they subordinate all their operations to the sensible conditions of intuition and construction – *following the flow of matter, drawing and linking up smooth space.*<sup>280</sup>

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<sup>278</sup> Gilles Deleuze and Félix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia* Vol. 2 (London: Continuum, 2004), 421, 460.

<sup>279</sup> Deleuze et al., *A Thousand Plateaus*, 412.

<sup>280</sup> Deleuze et al., *A Thousand Plateaus*, 412.

Materiality in this example *creates* meaning, but not in the universalising, singular way assumed by many of the modern physical sciences and conventionalised in traditional conceptions of the real. It is a localising, specifying materiality that generates ‘at the coalface’ meanings – understandings in response to particular problems, rather than an impulse of general inquiry. Indeed, these understandings cannot be generalised, and as such, cannot be made safe in general – as the collapse of two churches at Orléans and Beauvais built at the end of the 12<sup>th</sup> century attest.<sup>281</sup> This gives insight into the nuance of the alternative conception of the real presented here. *Sometimes* matter acts to resist, disrupt the orderings imposed on the real by *meaning* (by power/knowledge, by structure, by agency). *Sometimes*, however, matter and meaning intertwine in an entirely different way, with matter *giving form* to meaning, but only under local and specific conditions.<sup>282</sup>

This example also emphasises the second and related way in which Deleuze and Guattari conceptualise the excess of being as interacting with meaning. This is through the impersonal role of affect in enrolling ‘things’ in machinic assemblages. Affect, in their account, is thoroughly material (in that it is removed from attachment to an individual person or any distinctive social logic as traditionally understood). However, it must also be thought of as meaningful, in the sense that it is an *organising* force (but one that does not respond to any universal natural laws).<sup>283</sup>

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<sup>281</sup> Deleuze et al., *A Thousand Plateaus*, 412.

<sup>282</sup> This metaphor draws on Daston’s evocative formulation of “things that talk.” Lorraine Daston, ed., *Things That Talk: Object Lessons From Art and Science* (New York, NY: Zone Books, 2004).

<sup>283</sup> This draws on Massumi’s reading of affect as:

asocial, but not presocial – it *includes* social elements but mixes them with elements belonging to other levels of functioning and combines them according to a different logic.

Brian Massumi, *Parables for the Virtual: Movement, Affect, Sensation* (Durham: Duke University Press, 2002), 30 (emphasis original).

This is not the only possible reading of Deleuze and Guattari. In particular, Manuel de Landa argues for a reading of their conception of assemblage that subordinates the excessive materiality of the assemblage to a natural law of complexity. His mathematically and scientifically infused account of Deleuze’s work

Here again is Ansell Pearson's description of Deleuze and Guattari's approach to the body:

The ethological approach seeks to define a body not in terms of organs and functions, and as characteristics of species and genus, but rather in terms of 'affects' (which are not mere feelings or affections, but harmonies of tone, colour, etc.).<sup>284</sup>

Deleuze and Guattari do not emphasise the role of 'simple' materiality (organs and functions) in shaping meaning. Rather they express a concern with the complicated ways in which materialities *are* affective, are enrolled in assemblages through affect, and gain meaning through affect:

Assemblages are passional, they are compositions of desire. Desire has nothing to do with a natural or spontaneous determination; there is no desire but assembling, assembled, desire. The rationality, the efficiency, of an assemblage does not exist without the passions the assemblage brings into play, without the desires that constitute it as much as it constitutes them.<sup>285</sup>

For example, Deleuze and Guattari's account of the weapons-assemblage *vis-a-vis* the tool-assemblage emphasises their differences along a number of different trajectories *including* different desiring tonalities, and further itself relies on an overall affective 'pull' that ties these trajectories together. These affective relations are not over-determined, teleological, or even rational. They are inhuman and multi-directional, possibly even schizophrenic:

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argues that the operation of affect and desire is precisely within an (admittedly expanded and highly recursive) mathematical framework: desiring-machines, for example, thus become "quasi-causal operators." No matter the openness of the science of this account, it is apparent that by appealing to a singular scientific voice, and in particular, by excluding 'desire,' de Landa excludes the "textures" John Law argues we should possibilise in our accounts of the real. See, Manuel de Landa, *Intensive Science and Virtual Philosophy* (London: Continuum, 2002), 205.

<sup>284</sup> Keith Ansell Pearson, *Germinal Life: The Difference and Repetition of Deleuze* (London: Routledge, 1999), 179.

<sup>285</sup> Deleuze et al., *A Thousand Plateaus*, 440-41.

A worker-soldier, weapon-tool, sentiment-affect affinity marks the right time, however fleeting, for revolutions and popular wars. There is a schizophrenic taste for the tools that moves it away from work and toward free action, a schizophrenic taste for the weapon that turns it into a means for peace, for obtaining peace.<sup>286</sup>

Affect, the desiring machine, and the passionnal nature of assemblages are all concepts used by Deleuze and Guattari that indicate a fundamental alterity in their conception of the real. Rather than traditional accounts of physical science in which brute materiality or universal laws of nature control the ordering of our world, or newer social scientific accounts which emphasise the ways in which the meaning gives form to materiality (be it through power/knowledge narratives, human agency, or structure), Deleuze and Guattari propose a materiality which *is* meaningful, in which there is no purpose in thinking them separately.

Yet it is this desiring composition of assemblage that leads to Mark Hansen's engaging critique of Deleuze and Guattari. Hansen otherwise applauds Deleuze and Guattari for liberating materiality from the dictates of meaning and vice versa, arguing that they "develop a general machinic ontology capable of displacing the binary opposition (vitalism vs. mechanism) underlying the machine metaphor ... ."<sup>287</sup> For Hansen, however, subordinating the functioning of the machinic assemblage to affect leads to an inability to explain the material autonomy of technology, or:

'technology creep' or 'technology drift,' [which is] the liability for technology to deploy itself and thus to impact experience along pathways that cannot be predicted from or limited to the synchronic standpoint of governing social forces.<sup>288</sup>

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<sup>286</sup> Deleuze et al., *A Thousand Plateaus*, 444.

<sup>287</sup> Hansen, *Embodying Technessis*, 186.

<sup>288</sup> Hansen, *Embodying Technessis*, 193. 'Social' here refers not to narrow, structuralist accounts of the social, but to the much more nuanced, materially inflected account of the social-as-assemblage presented in Deleuze and Guattari.

In particular, Hansen argues that the real-as-emerging from the practice of technology should not be subordinated to the affective real of the desiring-machine or machinic assemblage. This is because in this concept technology acts as cipher for the real rather than an autonomous agent in its own right. For example, in relation to nomadic science Hansen argues that:

Within nomadology, technology remains an operation to be performed on the real – *a mere vehicle for translating the real into a form (e.g. writing) – and not an operation of the real itself.*

Accordingly, the material autonomy D+G [Deleuze and Guattari] attribute to metallurgy remains a merely relative autonomy, one generated only through a socially rooted correlation of an act with a context. The configuration of an assemblage by the metallurgist (not technology itself) comprises what D+G call the ‘veritable invention.’ The assemblage remains primary in relation to the material phylum.<sup>289</sup>

For Deleuze and Guattari the technologies by which nomadic sciences attempt to track the singularities of materiality are always/already enrolled in the affective assemblage that creates them. For Hansen, however, this overlooks the autonomous agency of the materiality of technology, ignoring one of the most profound influences on human experience in human history. By contrast, Hansen sees technology as emanating its own rhythms, enacting its own distributions that disrupt and counter existing organisations and tendencies (assemblages):

Becoming, as D+G develop it, cannot encompass the transformational connections where the human terms cannot but remain passive, where the human agent must let itself be invaded by the inhuman rhythm of material exteriority . . . With this limit on the scope of affirmative becoming, we encounter the theoretical imperative that underlies my critical study: *the imperative to lend our embodied experience a distinct autonomy by divorcing our processing of the alien material*

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<sup>289</sup> Hansen, *Embodying Technesis*, 200 (emphasis added).

*rhythms from any moment of (cognitive) recognition that would precondition or actually cause the movement of becoming.*<sup>290</sup>

Hansen's assertion of the distinctive autonomy of the materiality of technology finds echoes in some of the efforts of nonrepresentational geography to understand the inhuman impacts of technology on the way in which we move through space. These analyses have referred to this phenomenon through such terms as the "automatic production of space," "movement-space," "the technological unconscious," and "software-sorted geographies."<sup>291</sup> Thrift, for example, refers to the technological unconscious as being 'outside' of meaning because its experience is entirely backgrounded, without meaningful content.<sup>292</sup>

For the moment, however, while perhaps not endorsing the precise thrust of Hansen's argument, this thesis draws from his work the insight that there are multiple ways in which materiality interacts with meaning, including: interrupting, resisting and making a 'mess' of meaning through the resistance of the body, as in Foucault and Lefebvre; through the affective operation of machinic assemblages, where matter might direct meaning, in partial and locally specific ways; and through the autonomous operation of technology. No doubt there are other ways, but these are just a few. Significant for the purposes of specifying (possibilising) the alternative

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<sup>290</sup> Hansen, *Embodying Technesis*, 210 (emphasis added).

<sup>291</sup> Nigel Thrift, and Shaun French, "The Automatic Production of Space," *Transactions of the Institute of British Geographers* 27, no. 3 (2002); Nigel Thrift, "Movement-Space: The Changing Domain of Thinking Resulting from the Development of New Kinds of Spatial Awareness," *Economy and Society* 33, no. 4 (2004); Nigel Thrift, "Remembering the Technological Unconscious by Foregrounding Knowledges of Position," *Environment and Planning D: Society and Space* 22, no. 1 (2004); Stephen Graham, "Software-Sorted Geographies," *Progress in Human Geography* 29, no. 5 (2005). It should be noted, however, that many of these accounts from non-representational geography still refer to notions of 'writing' space which Hansen would reject, given his attempt to move beyond immaterial, discursive metaphors for understanding the impact of the autonomous materiality of technology. The book's title, *Embodying Technesis: Technology Beyond Writing*, for example, refers precisely to an attempt to move beyond the metaphor of 'writing' for evaluating the impact of technology on human experience.

<sup>292</sup> Thrift, "Movement-Space," 585.

account of the real that emerges from the work of Foucault, Lefebvre, and Deleuze, is the acknowledgement of the complexity of the relationship between meaning and matter. This includes the multiple ways in which materiality interacts with meaning and the *subsequent multiplicity of ways in which the real emerges from practice*.

This has a specifically methodological consequence: accounts which gain coherence through focussing on one method of allowing materiality to 'speak' (for example, the body) while excluding the possibility of others risk losing depth. Rather, accounts looking to speak to the nuanced interaction of matter and meaning should look to the excessive nature of reality as a guide, in particular the real's complexity, multiplicity, and mess. As John Law argues:

Events and processes are not simply complex in the sense that they are technically difficult to grasp (though this is certainly often the case). Rather, they are also complex because they *necessarily exceed our capacity to know them*. No doubt local structures can be identified, but, or so I want to argue, the world in general defies any attempt at overall orderly accounting. ... Regularities and standardisations are incredibly powerful tools but they set limits. Indeed, that is part of their (double-edged) power.<sup>293</sup>

This, then, is one of the first lessons in committing to an alternative real: if the alternative real is constructed through practice, if it is a real in which matter and meaning commingle, restructure, and are brought together in logics that include those which are *other* to our traditional understandings of order (through affect, for example), *then listening to materiality speak may require us to listen in more than one way*.

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<sup>293</sup> Law, *After Method*, 6 (emphasis original).

This questioning can be understood as part of the shift in contemporary social thought from conceiving of society as a thing, to thinking about the social as a process. This in turn involves a move away from the idea of a static and monolithic social *order* to the idea of social *ordering* as a fluid, open and many-stranded activity. Following on from this interest in *ordering*, in my account questions of *agency* gain prominence beside, if not over, ones of *representation*, and a concern with what things *mean* (representation) cedes some precedence to how they *work*. At various times I am concerned with the sorts of agency that need to be brought into play in order for things to work in the way they do. Parallel to this I am interested in seeing the social world in terms of action or doing, in terms of practice, of what I later call the *performance* of people, but also of things.<sup>294</sup>

Patrick Joyce's statement of methodological intent usefully illustrates a number of points regarding the possibilising of accounts of an alternative kind of real. In particular, his concerns with accounting for practice (performance) and the ability to act over, or at least alongside, representation and meaning are familiar from the preceding sections. However, he highlights another significant aspect of the alternative account of the real being provided by Foucault, Lefebvre, and Deleuze: its *temporality*. Joyce, as with the authors discussed in the previous chapter, emphasises *process*, *ordering*, *action* (all verbs, all doing words), illustrating his concern with an account of the real that *unfolds in time*.<sup>295</sup>

Of course, traditional accounts of the real also unfold in time. It has, in fact, been critical theory that has been accused of emphasising space (materiality) at the

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<sup>294</sup> Patrick Joyce, *The Rule of Freedom: Liberalism and the Modern City* (London: Verso, 2003), 6 (emphasis original).

<sup>295</sup> Note here the resonance with this thesis, whose use of the word 'space' has slowly been replaced and/or infiltrated with the term 'spatialising practices.'

expense of time.<sup>296</sup> However, the temporality of most conventional understandings of the real is linear (most often, teleological), singular, and universal. We have already seen in detail how the authors discussed, in particular Lefebvre, reject these assumptions about time. Whereas time in conventional accounts fails to unfold radical difference, hitching change to a certain destination (for example, thermodynamic equilibrium in some forms of physics, the ‘fittest’ species in Darwinian evolution), in each of the three accounts given above, time is an active participant in the structuring and restructuring of the real. While for Foucault temporality is a component of the spatial structuring of the disciplinary relation (although an often over-determined one), for Lefebvre and Deleuze the creative possibilities of open-ended duration (as opposed to metricised time) are integral to understanding the emergence of difference. In particular, the openness of time is apparent in Lefebvre’s formulation of the *dialectique de triplicité* as a complicated recursive interplay *over time*. This interplay interrupts Marxist (and Hegelian) notions of linear history. For Deleuze and Guattari’s account, the ephemerality and contingency of assemblage emphasises time’s unfolding and variability.

While these conceptions of temporality are opposed to traditional views of linear time, they are also opposed to the singularity and universality of traditional conceptions of time (the view of time as an arrow that impersonally draws all things in its wake). If duration unfolds creative difference in Deleuze and Lefebvre, it is precisely because duration is *not* impersonal or unconnected to that which is evolving. Rather, as Grosz points out, the duration of something emerges through “the very movement of differing *from itself*.<sup>297</sup> Tying temporality to what are usually supposed to be its ‘subjects’ multiplies the possibilities of time. There is no longer a

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<sup>296</sup> However, for a compelling rebuttal to this criticism, see, Doreen Massey, *For Space* (London: SAGE Publications, 2005).

<sup>297</sup> Elizabeth Grosz, *The Nick of Time: Politics, Evolution, and the Untimely* (Durham, NC: Duke University Press, 2004), 159 (emphasis added). This is Lefebvre’s notion of involution. See, previous, 56.

single, impersonal time, but many times, tied to concrete but multiple expressions of practice (multiple reals, as identified above).

Let us return for a moment to Deleuze and Guattari's description of the patience of the nomad: "Immobility and speed, catatonia and rush, a 'stationary process,' station as process – these traits ... are eminently those of the nomad."<sup>298</sup> Such a temporality is at odds with the measured time of the State form marching to the drum of logistics. These two assemblages perform two entirely different reals – with different spatialities, different desiring tonalities, and different temporalities. Yet the openness of Deleuze and Guattari's account allows for the alteration, collapse or reworking of these temporalities, for example, in the emergence of the fleet-in-being through the previously striated space of the sea.

Such a view of time(s) not only creates the openness necessary for "a politics which can make a difference," as Massey argues, but it also multiplies the possibilities for exploring the emergence of the real.<sup>299</sup> For, as Lefebvre begins to do with his rhythmanalysis, we can now begin to consider another way in which things impact on one another. To the ever-growing list of power, knowledge, force, spatial distributions, bodies, and affect, we can add rhythm as a way of understanding how the real emerges from practice.

The openness asserted to exist in violence requires, at least in the accounts of Foucault, Lefebvre, and Deleuze, an openness of temporality that allows for the production of difference. However, traditional accounts of violence have assumed a number of things that have limited violence and the temporality in which it operates. They have assumed, for example, that violence is *either* fully commanded by agents,

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<sup>298</sup> Deleuze et al., *A Thousand Plateaus*, 420. See n. 255, above.

<sup>299</sup> Massey, *For Space*, 11.

or that it emerges through structures (such as geopolitical arrangements, the competition for resources, the clash of cultures). In either case, however, violence is purposive – it has maintained its Clausewitzean sense of being politics pursued by other means. The temporality of such an account is linear and closed: violence follows the path dictated by the logic of the agent/structure. Violence is constrained, and if it exceeds the boundaries set by agents and structures, then there is no accounting for this excessiveness, except to say that this excessiveness is anarchical, destructive, and otherwise ‘bad.’ Yet, as Julian Reid notes in relation to Deleuze’s reading of Clausewitz, even Clausewitz actually conceived of war as subject to the contending forces of violence, reason, and chance, citing Clausewitz’s reference to “the play of chance and probability within which the creative spirit is free to roam.”<sup>300</sup> That is, theorists of war have often recognised in violence a creative, productive potential, one that plays out through time (“the play of chance and probability” is precisely a reference to the nonlinear temporality of battle).<sup>301</sup>

This thesis contends that we should view this creative potential of violence not simply through the lens of its tendency to escape and *destroy* (as in the Cossack warriors), but also through its tendency to produce and *create*. This tendency is shown through both the creative possibilities opened by destruction, and the creative action of the forces that accompany violence into being (forces that cannot be

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<sup>300</sup> Carl von Clausewitz, *On War* (London: Everman’s Library, 1993), 101, cited Julian Reid, “Deleuze’s War Machine: Nomadism Against the State,” *Millennium: Journal of International Studies* 32, no. 1 (2002): 67.

<sup>301</sup> This is not to enter into the popular debate that has emerged in light of the RMA about whether what Clausewitz termed the “friction of war” can ever be managed or overcome. For a summary of this debate, see, John F. Schmitt and Gary A. Klein, “Fighting in the Fog: Dealing with Battlefield Uncertainty,” *Marine Corps Gazette* 80, no. 8 (1996). Further, it is not to seek to engage with RMA proponents who have attempted to read into Clausewitz a scientifically nonlinear (i.e. ‘complex’ or ‘chaotic’) understanding of battle. Such accounts have rightly been decried as both anachronistic and scientifically determinist. For an example of this literature, see, Barry D. Watts, *Clausewitzian Friction and Future War: McNair Paper* 52 (Washington, DC: Institute for National Strategic Studies, National Defense University, 1996).

separated from violence, as in the nomadic war machine, which produces both violence and the desert, both metallurgy and the speed of the warrior).

It is this tendency that creates a need to make possible accounts of a different kind of real, ones that incorporate a different kind of temporality. Following Whitehall's description of music, we might think that Foucault, Lefebvre, and Deleuze enable "the paper to treat [violence], not as a thing, but as an active force imbued with transformative political potential."<sup>302</sup> The spatial vocabulary of violence provided in the previous chapter – Foucault's distribution of bodies, Lefebvre's rhythmanalysis, the smooth and striated spaces of Deleuze and Guattari's assemblages – all open up avenues for exploring the ways in which violence contends with (incorporates/is affected by/creates from) materiality, affect, multiple temporalities, the agency of the inhuman, and more. Traditional accounts of violence simply do not contend with such 'textures,' reliant as they are on traditional versions of the real, where 'things' stay constant no matter the stuff of their relations, where destruction is creative only in the sense of creating absence, and where agency and structure reign supreme – or are subordinated entirely to a kind of naïve but brute materiality.

By pushing the commonalities underlying the accounts of Foucault, Lefebvre, and Deleuze as far as they will go, this chapter makes possible a strongly plausible account of an alternative *kind* of real. This real is not singular, universal, or anterior

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<sup>302</sup> Geoffrey Whitehall, "Musical Modulations of Political Thought," *Theory & Event* 9, no. 3 (2006): 1. It is worth drawing attention to music as a point of comparison for violence, because, in an analogous way to the manner in which violence is conceived, Whitehall notes that music has also been viewed as *either* thoroughly autonomous from society *or* thoroughly socially determined. Whitehall suggests instead that music has the capacity to subvert these either/or accounts, by "breaking for the virtual" – that is, by moving beyond the over determination of state music, harmony, and rhythm into a plane of excess, difference and repetition. In this, Whitehall is strongly influenced by Deleuze and Guattari's account of music. See, Whitehall, "Musical Modulations of Political Thought," 46, 44.

to us. Instead, this real and, in particular, agency and subjectivity emerge *through practice* in a way that denies the singularity of the real, or its supposed ahistorical qualities, and implies instead *the existence of multiple reals* responding to *multiple temporalities*. This alternative real emerges from a *complicated and non-deterministic interaction of matter and meaning* (practice as interpreted most generously and most stringently), which, it has been argued, leads to reals that respond to a number of orderings (some of which are not orderings at all, but affects).

All of these insights into an alternative account of the real demand a method that can address the multiplicity, the mess, and the slipperiness of reality without either losing critical insight in a jumble of detail, or gaining critical insight through the violent suppression of multiplicity via the imposition of a grand narrative. As Donna Haraway argues:

So, I think my problem and 'our' problem is how to have *simultaneously* an account of radical historical contingency for all knowledge claims and knowing subjects, a critical practice for recognizing our own 'semiotic technologies' for making meanings, *and* a no-nonsense commitment to faithful accounts of a 'real' world, one that can be partially shared and friendly to earth-wide projects of finite freedom, adequate material abundance, modest meaning in suffering, and limited happiness.<sup>303</sup>

This chapter now turns to the work undertaken by material semiotics in STS and nonrepresentational geography to address precisely these concerns.

## A Methodology for an Uncertain Real

The view of reality as composed of matter and meaning held together in tension, without the resolution of one into the other, reflects a growing political project under

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<sup>303</sup> Donna Haraway, *Simians, Cyborgs, and Women* (London: Free Association Books, 1991), 187 (emphasis original).

way in the social sciences. This project draws on a so-called “minor tradition” in philosophy (from Spinoza and Leibniz through to Nietzsche and Foucault) that takes seriously questions about the ‘nature of nature’ (materiality, historicity) and its political import.<sup>304</sup> Taking up the challenge of this minor tradition have been two ‘disciplines-within-a-discipline,’ material semiotics and nonrepresentational geography.<sup>305</sup> This section will explore how these disciplines have grappled with the slipperiness of the alternative real presented above. As urged above, the emphasis is on maintaining an awareness of the need to listen to the real in more than one way.

What becomes clear through this exploration is that method is something that cannot be placed at the beginning of a paper only to be ‘backgrounded’ in following chapters. The kind of method proposed here is not a ‘framework’ in any traditional sense. If anything, it is an orientation, with some accompanying tools and hints and openings which can be used to grapple with the story that emerges through research. These tools have to be picked up as the story emerges, and cannot be decided in advance in case unexpected textures are excluded from consideration. As Annemarie Mol says in reference to this kind of mode of enquiry:

... in the philosophical mode I engage in here, knowledge is not understood as a matter of reference, but as one of manipulation.<sup>306</sup>

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<sup>304</sup> See, William E. Connolly, *Neuropolitics: Thinking, Culture, Speed* (Minneapolis: University of Minnesota Press, 2002), 2-3.

<sup>305</sup> For an account of material semiotics in STS, see, Law, *After Method*. For an account of nonrepresentational geography, see, Nigel Thrift, *Spatial Formations* (London: Sage Publications, 1996), Chapter One. However, the phrase ‘non-representational theory,’ while useful, does not begin to cover the range of interesting geographic work exploring the alternative real outlined in the previous section. The work of Doreen Massey, for example, draws on but goes beyond nonrepresentational theory in both its theoretical scope and its politics. See, Massey, *For Space*, 75. Similarly, material semiotics in STS works alongside branches of feminist (techno-)cultural studies, including cyborg feminism, which challenge conventional accountings of the matter/meaning relationship. See, for example, Sarah Kember, *Cyberfeminism and Artificial Life* (London: Routledge, 2003).

<sup>306</sup> Mol, *The Body Multiple*, 5.

The manipulation of objects to produce knowledge is not only performed by those that we, as academics, observe, but also by us, as academics ourselves. We must therefore be very cautious about what we make absent, other, or as John Law terms it, what we put in “the hinterlands.”<sup>307</sup> Overly rigorous method which holds fixed what is being studied from the beginning, which assumes the *kind* of answer it should return (a structure, an agent, or even a specific desiring machine), which fixes a specific subject (a political project, a technology, even a battle), might very well continue to miss the complexity, the multiplicity, the mess of the real – the openness of violence. Hence, this section acts as nothing more than a brief listing (and the method of the *list* is important here) of some ways of approaching this alternative kind of real. Methodological tools, as with all theoretical tools, will be made to earn their passage inside the accounts of the real of the US military battlespace that follow.<sup>308</sup>

An attitude of openness and doubt: sketchbooks, lists, and pinboards

Annemarie Mol’s book *The Body Multiple* is a beautifully-written exploration of the enactment of a single disease, atherosclerosis, in a single hospital somewhere in the Netherlands. Despite the singularity of her object of study, Mol demonstrates effectively the ways in which the disease, the patient’s body, and the hospital itself are enacted as multiple realities, responding to multiple concerns and organising principles. While multiplicity is addressed below, what is significant for the moment is the way in which Mol formulates her study. Her book is not primarily an exercise in medical anthropology, despite its subject matter, but rather an exercise in what she terms “empirical philosophy.”<sup>309</sup> Empirical philosophy attempts to articulate a

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<sup>307</sup> Law, *After Method*, 42.

<sup>308</sup> This expands on Patrick Joyce’s demand that “theoretical approaches work their passage.” Joyce, *The Rule of Freedom*, 2.

<sup>309</sup> Mol, *The Body Multiple*, 1.

philosophical (ontological) account of the nature of the alternative real (hence the philosophy), while maintaining an emphasis on its material, praxiographic origins (hence the empirical).

One of the most significant results of Mol's empirical philosophy is her advocacy of what she terms an "ontological politics." An ontological politics has a number of elements, but it is marked by an orientation of *doubt* toward asserted ontological coherence and totality, and an *openness* toward the existence and possibilities of alternative (material, ontological) ontologies. It is about promoting alternative processes of enacting reality, but importantly it is also about acknowledging the partial nature of such promotions, the contingent nature of their enactment, and their own ongoing and open nature.<sup>310</sup> As Mol notes:

... the world we live in is not one: there are a lot of ways to live. They come with different ontologies and different ways of grading the good. They are political in that the differences between them are of an irreducible kind. But they are not exclusive. And there is no *we* to stand outside or above them able to master them or choose between them: we are implied. Action, like everything else, is enacted too.<sup>311</sup>

Ontological politics, then, is a political way of thinking multiplicity, a way of embracing the political possibilities presented by the multiplicity that emerges if we attend to this alternative real.

A primary feature of this ontological politics is *doubt*, which promotes the multiplication of reality. For example, medical sociology has long argued that conventional medicine (detrimentally) ignores the experience of the patient's disease by prioritising pathological understandings of disease. As a result, it is argued, patients are made the subject of power/knowledge relations that ignore their own

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<sup>310</sup> Mol, *The Body Multiple*, 184.

<sup>311</sup> Mol, *The Body Multiple*, 181 (emphasis original).

capacity for agency within the disease. Yet, as Mol notes, such an argument can be self-defeating:

When critics ... say over and over again that medicine silences the objects of its knowledge, the irrelevance of what patients have to say is restated as many times as a fact. Thus, the fact is strengthened. There might be better ways of escaping. ... It might then be a good way to escape from a medicine founded on pathology to wonder whether, in practice, medicine is indeed founded on pathology. This implies that instead of *criticizing* pathology's foundational role, we raise questions about it, we *doubt* it. ... Is pathology indeed foundational if we no longer investigate medicine as if there are knowing subjects on the one hand and objects to be known on the other?<sup>312</sup>

Mol is not saying that we can doubt pathology's damaging relations with the patient out of existence: it cannot be denied that doctors can and do ignore what patients say about their bodies in favour of the knowledge they have gained from textbooks. But they also ignore textbooks in favour of 'experience' or 'intuition' – or maybe even as a result of the patient's own actions. Further, sometimes (most times), it is not the doctor who 'acts' at all, but the laboratory, or the hospital process, or the government health benefit scheme. What Mol is saying is that the real of disease operates in complex ways that are not covered completely by any single account. Mol's doubt is that there is any single ontology (a world in which knowledge cleanly determines practice, for example) which explains things entirely. Doubt is not a form of the denial of reality, but a means of its *multiplication*. Similarly, we might doubt the often asserted relation between Orientalism and Western violence, and in so doing, multiply the realities across which violence is deployed.<sup>313</sup>

This is where the second aspect of an ontological politics comes into play.

*Openness* is about embracing the possibilities of multiplication. Multiplication and

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<sup>312</sup> Mol, *The Body Multiple*, 47-48 (emphasis original).

<sup>313</sup> See, Derek Gregory, *The Colonial Present* (Malden, MA: Blackwell Publishing, 2004), Chapter 2.

the acknowledgement of complexity have the paradoxical effect that the possibilities for ethical action seem both worse (no single revolutionary impulse can overturn a tyrannical order) and better (possibilities and locations for interference multiply, the coherence of power has fractured, other realities exist that might be less damaging).<sup>314</sup> As Mol argues: “An analysis like this opens up and keeps opened up the possibility that things might be done differently.”<sup>315</sup> Doreen Massey makes a similar point rather differently, when she argues against utilising traditional spatial terms of analysis – the local, the global, the openness and closure of boundaries – to guide one’s analysis. Massey argues for an emphasis on understanding (and attempting to impact) how our “throwntogetherness” in spaces makes necessary the constant *negotiation* of the open-ended real.<sup>316</sup>

All of this makes for what Marcus and Saka term, in a different context, a “nervous condition for analytic reason.”<sup>317</sup> If one sets out to doubt coherence, to be open to multiplicity and change, then one must be not only ‘generous’ in method, as John Law espouses, but capable of holding the various ‘reals’ that emerge in tension with one another, so that they do not collapse into another singular account. One of the ways in which Law and Mol suggest that we might begin to do this is through using different methods of telling stories.

In particular, when reality is thought of as enacted multiply and complexly the singularity of narrative prized by (social) science over the centuries becomes impossible. This much has been argued above, but is also apparent in Chapter One, which highlighted different ways of telling the same story (think of Lefebvre and Foucault’s quite different accounts of dressage). The tone of that chapter was

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<sup>314</sup> See, Law, *After Method*, 155-56.

<sup>315</sup> Mol, *The Body Multiple*, 164.

<sup>316</sup> Massey, *For Space*, Chapter Fifteen.

<sup>317</sup> Marcus et al., “Assemblage,” 102.

permissive, and stories were held together not by their internal coherence but through their ‘addition’ to each other’s insights. However, addition is not quite the right word:

Imagine, then, not a grid drawn in ever more detail, with ever more subdivisions; imagine, instead, turning the pages of a sketchbook. Imagine looking at different pictures, one after the other. *Each orders and simplifies some part of the world, in one way or another, but what is drawn is always provisional and waits for the next picture, which draws things differently.*<sup>318</sup>

Here, Law and Mol are describing the way in which *a list* can hold things together without striving for the coherence of an overall ‘order,’ that is, without losing an orientation of doubt and openness. Not only are lists works-in-progress – never completed (perhaps not even seeking completion) but their elements do not always refer to the same order of logic. This is particularly useful if one considers the alternative real, which contains elements that operate according to entirely different logics (power/knowledge, affect, force, and so on).

In another context, Law refers to possibilities opened up by a “pinboard” approach. In contrast to narrative, Law argues that a pinboard performs our knowledge in a way that allows us to hold different accounts of the real “*in tension*” in order to “secure other knowing effects.”<sup>319</sup> Similarly, Mol and Law refer to the possibilities of performing our knowledge in a non-narrative form, by discussing the possibilities opened by ‘walking through’ rather than making a ‘mapping of a particular real.’<sup>320</sup> This thesis uses such an approach – a discussion of the coordination of multiplicity here, a description of absence and presence there.

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<sup>318</sup> Annemarie Mol and John Law, “Complexities: An Introduction,” in *Complexities: Social Studies of Knowledge Practices*, ed. Annemarie Mol and John Law, 1-22 (Durham: Duke University Press, 2002), 7 (emphasis added).

<sup>319</sup> Law, *Aircraft Stories*, 191 (emphasis original).

<sup>320</sup> Mol et al., “Complexities,” 16-17.

However, there are problems posed by the permissive nature of such methodological tools. As Law asks in *Aircraft Stories*, “what would count as *rigor* in the mode of the pinboard?”<sup>321</sup> This is an important question, because there are unfamiliar dangers in speaking so permissively of the provisional nature of academic work. In addition to the dangers of conclusion and of attaining to coherence, outlined above, there are dangers of becoming lost in the wilderness of ever-expanding detail.

As Mol argues: “Blow up a few details of any site and immediately it turns into many.”<sup>322</sup> The modes of assembling stories outlined in this chapter may be permissive, allowing sites to be explored from any number of angles (as in a sketchbook), but ultimately there has to be a *purpose* to this permissiveness. For Mol, for example, her first purpose is simply to illustrate the ontological fact of the *existence of multiplicity*.<sup>323</sup> Her second purpose is to illustrate some of the ways in which multiple realities are coordinated to enact a ‘singular’ object (the body, the disease). So her account included much that would usually be bracketed in the sociological or otherwise study of disease, but still excluded much more (there was little discussion of epidemiology, or public health policy, for example). What guided Mol’s exploration, then, was the formulation of an *ontological politics*. This politics was both specific (locating junctures in the enactment of disease to allow an interference on behalf of certain realities), as well as general (presenting a persuasive argument for maintaining an open academic attitude toward the multiplicity of reality).

Rigour, then, is being able to hold in tension the impetus to illustrate multiplicity and resist coherence, and the need to *say something*. Academic rigour, so apolitical in traditional methodologies, becomes a political act. What is othered, excluded, made

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<sup>321</sup> Law, *Aircraft Stories*, 191 (emphasis original).

<sup>322</sup> Mol, *The Body Multiple*, 51.

<sup>323</sup> “So what I am trying to relate is not that there are two, five, or seventy variants of atherosclerosis, but that *there is multiplicity*.” Mol, *The Body Multiple*, 51 (emphasis added).

absent in the account must be acknowledged as such. Methods of bringing stories together must be acknowledged as being partial and contingent, and not least as a way of enacting (in the academic's own small way) a new kind of real.

### Praxiography: the study of practice

Studying something through the lens of this alternative kind of real is a difficult, doubt-ridden exercise. It is also a playful process in which we turn an object around and around to describe the different reals we find. This opens out possibilities for critical action through thought. Lists, pinboards, and sketchbooks all play a role in allowing for the study of this alternative kind of real.

Yet there is more substance to the method proposed by material semiotics and nonrepresentational geography than an orientation of openness and doubt. One of the ways in which rigour is introduced is through the study of things through *praxis*. As argued above, practice is what makes reality multiply, and by emphasising practice (rather than 'knowledge' or 'power' or even 'spaces,' as things that exist on their own) we illustrate the contemporaneous existence of competing realities (objects, systems, things) of greater-or-less coherence.<sup>324</sup> As anyone who has worked in a large bureaucratic environment will attest, the study of practice undermines what narrative makes coherent.

However, the study of practice – praxiography – is not a singular process. In Mol's book *The Body Multiple* praxiography is performed through ethnography, a

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<sup>324</sup> For an extended exploration of theories of practice in the context of nonrepresentational geography, see, Thrift, *Spatial Formations*, 6–30. This section clearly identifies at least four modes of thought that emphasise practice as a mode of study: phenomenological and associated approaches; Bourdieu's historical sociology of *habitus* and de Certeau's associated work on the (spatial) practice of everyday life; actor-network theory (a cousin of material semiotics); and non-representational post-structuralism (such as that found in Foucault and Deleuze).

close study of the practice of people (what people do) in a given context. However, she notes that there are ways of studying praxiography. For example, there is the study of the “*materials and methods* section of scientific articles,”<sup>325</sup> and Nigel Thrift explores practice *through the body* (the “sensuousness of practice”), asking questions such as, ‘How do people perform their bodies?’, and ‘How do they experience their bodies?’<sup>326</sup> This is what Foucault does with his study of dressage; it is partly what Lefebvre is doing in his rhythmanalysis; and it is even part of Deleuze and Guattari’s exploration of desiring machines. Lefebvre also studies the practice of everyday life, a topic he shares with Michel de Certeau, whose study *The Practice of Everyday Life* famously explores the possibilities for resisting capitalism through the ‘tactics’ of walking in the city against the grain of capitalist rhythms and patterns.<sup>327</sup> As Amin and Thrift note, however, “we do not have to take on the romanticism of de Certeau’s notion of tactics to validate everyday life because large parts of what goes on in the city are still uncontrolled, a part of the city’s processual excess.”<sup>328</sup> The practice of everyday life can be unintentional and unconsidered, and the study of practice should allow for that to speak.

What these studies of practice (ethnography, materials and methods, bodily practices, the practice of everyday life) share is their emphasis on the complex ways in which reality is enacted through material practices that are uncontrolled by grand narratives. Note the use of the word *enacted*: it hints at the multiple, ongoing, processual creation of reality, and leaves “open *who* or *what* the actor is.”<sup>329</sup> By emphasising praxis and enactment, authors like Mol hope to undermine the universal,

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<sup>325</sup> Mol, *The Body Multiple*, 158 (emphasis original).

<sup>326</sup> Thrift, *Spatial Formations*, 1 (emphasis removed).

<sup>327</sup> Michel de Certeau, *The Practice of Everyday Life* (Berkeley and Los Angeles, CA: University of California Press, 1984), Chapter Seven.

<sup>328</sup> Ash Amin and Nigel Thrift, *Cities: Reimagining the Urban* (Cambridge: Polity Press, 2002), 46.

<sup>329</sup> Mol, *The Body Multiple*, 143 (emphasis original).

immaterial claims of traditional ontology. As Mol suggests at one point: "The praxiographic 'is' is not universal, it is local. It requires a spatial specification."<sup>330</sup> The specifically spatial consequences of this insight are explored in the following section. What is apparent here is that praxiography can but be limited in scope: not *all* bodies, but *these* bodies; not *all* disease, but *this* disease, *here*. In the case of this thesis, this means that the (spatial) practice of violence becomes time and place specific. No longer the spatiality of US military violence, then, but the practice of violence by a particular group of people in a particular battlespace.

This thesis draws on an ethnography of the use of the Command Post of the Future (CPOF) by the 1<sup>st</sup> Cavalry Division in 2004-2005. Further, this study is a specific ethnographic study of *spatial praxis*. This means that what is examined is the practice (of violence) in relation to space. While certainly not the only way of approaching the study of the praxis of violence (the possibility of studying the bodily practices of violence springs to mind), considering the spatial practices of violence allows consideration of the open and experimental qualities of violence in a non-subjective, multi-spatial and temporal, but still recognisably ordered context. Further, as Patrick Joyce notes, spatial practice offers the opportunity to sit between 'micro' narratives such as those of the body and the family and 'macro' narratives such as those of society and the economy.<sup>331</sup>

### Interrogating the alternate real

This section outlines briefly three kinds of question one might ask in order to approach the study of a spatial praxis of violence with a doubtful and open mind. It does not offer a comprehensive analysis of the questions because these are questions

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<sup>330</sup> Mol, *The Body Multiple*, 54.

<sup>331</sup> Joyce, *The Rule of Freedom*, 8

that do not, *cannot*, exist in the abstract. The answers to these questions must instead be thought alongside/next to/inside of that which is being studied. What this account emphasises instead is how asking these questions allows a critical perspective on the kind of real that is being studied. There will be other questions, and further answers, but they are for another time.

Firstly, one of the consequences of thinking of the world as made up of objects and subjects that are multiple (multiple bodies, multiple diseases, multiple US Armies) is a consequent need to explain how things ‘hang together.’ Or at least there is a need to explain how multiplicity does not overwhelm us with a cacophony of overlapping realities. As Annemarie Mol notes, one of the most amazing things about atherosclerosis is not that it is multiple, but rather that multiplicity underlies a world nominally predicated on singularity.

Atherosclerosis enacted is more than one – but less than many. *The body multiple* is not fragmented. Even if it is multiple, it also hangs together. The question to be asked, then, is how this is achieved. How are the different atheroscleroses enacted in the hospital related? How do they add up, fuse, come together?<sup>332</sup>

Mol examines a number of different mechanisms that enable multiplicity to coexist in its sometimes contradictory state. From the use of ‘gold standards’ to rank the worth of different realities, to the spatial and temporal distribution of alternate enactments of the disease, to the use of ‘covering’ mechanisms that unify realities by bracketing out their contradictions (written reports, for example): all of these are implicated in helping multiplicity hang together.

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<sup>332</sup> Mol, *The Body Multiple*, 55 (emphasis original).

In the following, it is argued that multiplicity is enacted in forms that are not simply unrelated or simply related, but rather fall somewhere in between. It may not be possible to gain an overall picture of the way in which multiple reals assemble themselves, but that is not to say that there is no point in exploring this process. At the very least, identifying the processes that enable the seeming coherence of multiplicity helps explain the orderings we see when we look at the world as a whole, and gives us tools for undermining the coherence and power of the seemingly singular orders we identify. Further, Law suggests that strategies for the coordination of the noncoherent also *themselves enact difference and multiplicity*. That is, coordination actually multiplies noncoherence. For example, in the following chapter, one coordinating strategy is the use by the 1<sup>st</sup> Cavalry Division of a *mode of encountering* to coordinate (navigate) the complex spaces (reals) of Baghdad.<sup>333</sup> Such a strategy itself then becomes enmeshed in the production of multiple reals. The creativity – the openness – of violence might lie in the altering strategies of coordination utilised by the US military as it attempts to reconnect itself to an increasingly complex and varying real.

Secondly, the emergence of the real from practice raises questions about the relation between absence and presence implied in any given arrangement of ‘things.’ Spatial practices imply the material configurations of things that are by definition present, yet it is possible (indeed, increasingly common) to think beyond the strict dimensionality of Euclidean space when thinking about the nature of this presence. Deleuze and Guattari, for example, discuss the absolute movement of a ‘thing’ in terms that do not relate to that thing’s discrete location at any given moment but to its occupation of a non-striated, non-demarcated space. What does it mean to be present in such a space? Exploring absence and presence opens up a series of related

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<sup>333</sup> For more on encountering, see, Michel Callon and John Law, "Absence-Presence, Circulation, and Encountering in Complex Space," *Environment and Planning D: Society and Space* 22, no. 1 (2004).

questions. What is here? What is not here? What is not anywhere much? *How* are things here and there? What, indeed, is the meaning of *here*?

Mol and Law suggest that we might consider a number of kinds of spatialities in which and through which things are enacted. These include Euclidean space, network space, and fluid spaces. These spatialities by no means form an exclusive list and are joined by others.<sup>334</sup> Further, they engage in complex interactions with one another. As Amin and Thrift put it:

We need to be careful about space. There are many different kinds of space, not just one, and the smallest spatialities can also have the largest social consequences. The different kinds of spaces are legion: there are, to name but a few, continuous, planar regions that emphasize exclusiveness and borders; there-and-back again networks; fluid spaces that emphasize interaction and proliferate; more than one place at once spaces that mix up proximity and distance, and so on.<sup>335</sup>

One of the most interesting things is to see how different configurations of absence and presence – different spatialities – interact.

Finally, attending to an alternate real raises questions about the emergence of agency. The fourth chapter identifies how the altering relations of absence and presence brought about by the CPOF's enrolment in the US military war machine are implicated in enacting US military units as agents with a particular kind of agency, one that is neither necessarily intended by the US command structure, nor necessarily easily controlled.

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<sup>334</sup> Indeed, Mol and Law themselves suggest alternative 'social topologies,' including distinguishing between regions, networks, and fluids, and expressing a concern with different 'kinds' of boundaries (permeable, blurred, mobile, folded, and so on). See, Annemarie Mol and John Law, "Regions, Networks and Fluids: Anaemia and Social Topology," *Social Studies of Science* 24, no. 4 (1994); John Law and Annemarie Mol, "Situating Technoscience: An Inquiry into Spatialities," *Environment and Planning D: Society and Space* 19 (2001). See, also, Tiago Moreira, "Surgical Monads: A Social Topology of the Operating Room," *Environment and Planning D: Society and Space* 22, no. 1 (2004).

<sup>335</sup> Amin et al., *Cities*, 40.

How is agency produced? (Remember Foucault's description of the soldier as a "fragment of mobile space, before he is courage or honour.")<sup>336</sup> How is it distributed among both human and non-human actors? What *kind* of agency is produced? Law and Callon, for example, distinguish between a 'quaculative' mode of agency and the strangely actively-passive mode of agency of a Quaker at a meeting.<sup>337</sup> Exploring these questions helps explain ways in which violence emerges as a novel and differentiating force.

## Conclusions

The previous chapter explored the ways in which spatiality and violence might be linked through spatial orderings, through rhythms, and through the composition of desiring-machines, opening up a vocabulary and an avenue for thinking of violence "not as a thing, but as an active force imbued with transformative potential."<sup>338</sup>

However, as this chapter has argued, in linking spatiality and violence, Foucault, Lefebvre, and Deleuze also begin to make it possible to think of an alternative *kind of real*. This real, and the things, subjects, and agency that people it, are marked by their emergence *through practice*, in a way that denies the singularity of the real and its supposedly ahistorical qualities. This has the effect of undermining traditional academic accounts of violence: when the real emerges through practice, violence becomes a part of the set of practices that demand examination in the specific. As a result of this, these accounts possibilise (though, it must be acknowledged, have not definitively argued for) a way of thinking of the existence of *multiple* reals responding

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<sup>336</sup> Michel Foucault, *Discipline and Punish: The Birth of the Prison* (London: Vintage Books, 1995), 164.

<sup>337</sup> See, Michel Callon and John Law, "On Quaculation, Agency, and Otherness," *Environment and Planning D: Society and Space* 23, no. 5 (2005).

<sup>338</sup> Whitehall, "Musical Modulations of Political Thought," 1.

to *multiple* temporalities.<sup>339</sup> This alternative real emerges from a complicated and non-deterministic interaction of matter and meaning *in practice*, responding to a number of different ordering principles (including affect, the resistance of bodies, and the materially autonomous operation of technology).

This chapter opens out the question of how to explore the spatial logic of violence if this alternative account of the real is to be taken seriously. As Haraway puts it, the problem is, on the one hand, how to provide an account of the emergent and contingent nature of the real, avoid narrative coherence and acknowledge the role our accounts as academics play in shaping the real, while at the same time still saying something *positive* and *concrete* about the world.<sup>340</sup> This thesis has argued that this complicated and difficult task can be attempted (though never completed) if the author maintains an orientation of *doubt* toward ontological coherence, and *openness* toward the possibilities opened out by the existence of ontological noncoherence, complexity, and multiplicity. This orientation makes possible an *ontological politics*, which looks to promote the already-existing, but potentially marginalised, alternative processes of enacting reality, while acknowledging the partial, contingent, and ongoing nature of such interventions. It is this ontological politics which guides the selection of material and methodological tools.

This thesis explores the spatial practices of violence in the context of the study of a particular kind of practice (the ethnography of a command technology). In so doing, it maintains an awareness of the kinds of problems raised at the end of this chapter that are unique, perhaps, to the praxiographic mode of study. How does the multiplicity of objects, subjects, reals, hang together? In what 'way' (In what kind of

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<sup>339</sup> In particular, Lefebvre's Marxist humanism shies from the decentring of agency implicit in this account.

<sup>340</sup> Haraway, *Simians, Cyborgs, and Women*, 187.

space? Through which time?) are things made absent and present in this set of practices? How (Through what entities? In what relations?) is agency distributed? What *kind* of agency results? These are just a few of the questions that open out if the real is viewed as emergent, responding to complicated and recursive relations between matter and meaning, and dependent on time to unfold difference. There will be others.

As the real emerges in multiple ways, so too does violence, undermining ambitions to locate a singular spatial practice of violence. As Mol would argue, however, this is not a problem but an opportunity, for the enactment of war in the streets of Baghdad, particularly during the time period covered by this thesis, was the enactment of a real in which the US forces played a central role in perpetrating and continuing cycles of destruction. This is the nature of war, of course. What the analysis above suggests is that there is a possibility that one might look for 'edges' of the orderings of such violence (and its associated productive forces) where these orderings overlap and interfere with others, and where it is possible to interfere on behalf of one's own sense of the good – not a universal sense of the good, however (a trap much commentary on the war in Iraq falls too easily into), but one that understands that the good, as with all else, emerges out of practice.

## INTERLUDE

### The (not-so-)distant roar of battle

On the contrary, [this mode of study] is interested in defining and discovering, beneath the forms of justice that have been instituted, the order that has been imposed, the forgotten past of real struggles, actual victories, and defeats which may have been disguised but which remain profoundly inscribed. It is interested in rediscovering the blood that has dried in the codes, and not, therefore, the absolute right that lies beneath the transience of history; it is interested not in referring the relativity of history to the absolute of the law, but in discovering, beneath the stability of the law or the truth, the indefiniteness of history. It is interested in the battle cries that can be heard beneath the formulas of right, in the dissymmetry of forces that lies beneath the equilibrium of justice.<sup>341</sup>

As Foucault so evocatively termed it, beneath the polite discussion of ontological realities, there is a distant roar of battle. Beneath discussion of the relation between spatial orderings and violence, there is the dried blood on the streets of Baghdad. This interlude, then, begins with the ‘stability of the law or the truth’ – the doctrines and concepts of war-making that attempt to contain and describe the spatial organisation

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<sup>341</sup> Michel Foucault, *Society Must Be Defended* (London: Allen Lane, Penguin Books, 2003), 56.

of violence – before listening to the battle cries that can (still) be heard coming from Baghdad today.

By sketching some of the US military's spatialising practices in Baghdad in this way, this interlude illustrates something about the practice of violence in Iraq that can be lost in critical reflection on the war, and on the contemporary security problematic in general. That is, it notes how spatialising practices of violence in Baghdad are a result of *both* the hybridisation *and* the separate operation of different military concepts and behaviours, particularly the concepts of Network-Centric Warfare and urban warfare. This point is significant as it establishes both the multiplicity of the battlespace and undermines the supposed singularity of the operation of violence (and of security discourse) in Iraq, a point often assumed by critical security theorists and traditional military analysts alike.

### **Network-Centric Warfare, urban operations, and spatialising the battlespace**

The US military is undergoing a complicated process of transformation, one strongly contested both from within and outside the military. Further, it has recently been declared dead on arrival by some critics, due in part to difficulties in matching the force transformation agenda to the situation in Iraq, and in part to the precipitous departure of one its most zealous advocates, Secretary Rumsfeld.<sup>342</sup>

One Network-Centric Warfare critic argues that:

Terrorists ... do not fear 'network-centric warfare' because they have already mastered it for a tiny fraction of one cent on the dollar, achieving greater relative effects with the Internet, cell phones,

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<sup>342</sup> See, David S. Cloud, "Pentagon Review Calls for No Big Changes," *New York Times*, February 2, 2006; Fred Kaplan, "Rumsfeld Surrenders: The QDR Dashes His Dreams of Military Transformation," *Slate* (2006), <http://www.slate.com/id/2135343/>.

and cheap airline tickets than all of our military technologies have delivered. Our prime weapon in our struggles with terrorists, insurgents, and warriors of every patchwork sort remains the soldier or Marine; yet confronted with reality's bloody evidence, we simply pretend that other, future, hypothetical wars will justify systems we adore – purchased at the expense of the assets we need.<sup>343</sup>

However, despite the attempts of sceptics of network-centrism to write off the impact of transformation on US military behaviour, or the converse attempts of network-centric advocates to ignore the ongoing influence of competing approaches (in particular, urban warfare and counterinsurgency), US military behaviour in Iraq has been inflected by both.<sup>344</sup>

This section explores the spatialising practices envisioned by the two central concepts of warfare informing US military behaviour in Iraq, Network-Centric Warfare and urban warfare, before exploring the ways in which US military behaviour in Baghdad has been implicated in multiple as well as hybridised spatialising practices.

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<sup>343</sup> Ralph Peters, "The Counterrevolution in Military Affairs," *The Weekly Standard* 11, no. 20 (2006), <http://www.weeklystandard.com/Content/Public/Articles/000/000/006/649qrsob.asp>. For a discussion of the institutional factors influencing the failure of cross-pollination between NCW, urban warfare, and counterinsurgency doctrines, see, Caroline Croser, "Organising Complexity: Modes of Behaviour in a Networked Battlespace," *Australian Army Journal* (2007), (forthcoming).

<sup>344</sup> There is a complicated relationship here between concepts and doctrine. NCW is a general concept for the future operation of armed forces (a suggestive description), integrated into the *Capstone Concept for Joint Operations*. Urban operations has both its own concept (which according to the US military hierarchy of concepts should respond to the *Capstone Concept*) and specific doctrine within each of the Services (a prescriptive range of activities to be undertaken in specific circumstances). For a description of the relationship between concepts and doctrine, see, Director for Operational Plans and Joint Force Development, *Capstone Concept for Joint Operations* (Washington, DC: Department of Defense, 2003), 3-4.

## The battlespace of Network-Centric Warfare

Warfare is about human behaviour in a context of organized violence directed toward political ends. So, network-centric warfare (NCW) is about human behaviour within a networked environment.<sup>345</sup>

As promulgated by its adherents, Network-Centric Warfare (NCW) – subsumed now within US doctrinal-speak under the broader theme of Force Transformation – is about taking the information-driven changes of our time and making them central to the changing of the US military. No mere advocacy for the adoption of new technologies (although these play their role), NCW and Force Transformation are nothing less than an attempt to shift the entire footing of the US military: all facets of operation – logistical, doctrinal, strategic, training, technological, and organisational – are to be altered to reflect their involvement in a networked environment (or, to use the words of Cebrowski and Gartska, to reflect their role in a “continuously adapting ecosystem”).<sup>346</sup>

Network-centric warfare brings together the description (and prescription) of a number of behaviours and outcomes that are possibilised in a networked environment. These include:

- gaining and maintaining information supremacy;
- increasing the speed of command;
- increasing shared situational awareness;
- enabling the coordination of physically dispersed forces through the battlespace;
- developing self-synchronisation during battle;

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<sup>345</sup> Vice Admiral Arthur Cebrowski (ret.), in, Office of Force Transformation (OFT), *The Implementation of Network-Centric Warfare* (Washington, DC: Office of Secretary of Defense, 2005), i.

<sup>346</sup> Arthur K. Cebrowski and John J. Gartska, "Network-Centric Warfare: Its Origin and Future," *Proceedings of the U.S. Naval Institute* January (1998), <http://www.usni.org/Proceedings/Articles98/PROCebrowski.htm>.

- developing high rates of change within one's own forces and in the broader environment;
- enhancing jointness of operations (that is, the removal of structural barriers between the Services); and
- compressing previously separate levels of warfare (the strategic, tactical, and operational), such that actions in one may directly impact on others.<sup>347</sup>

Or, to cite the description of NCW provided by one of its greatest proponents, (retired) Vice Admiral Arthur Cebrowski:

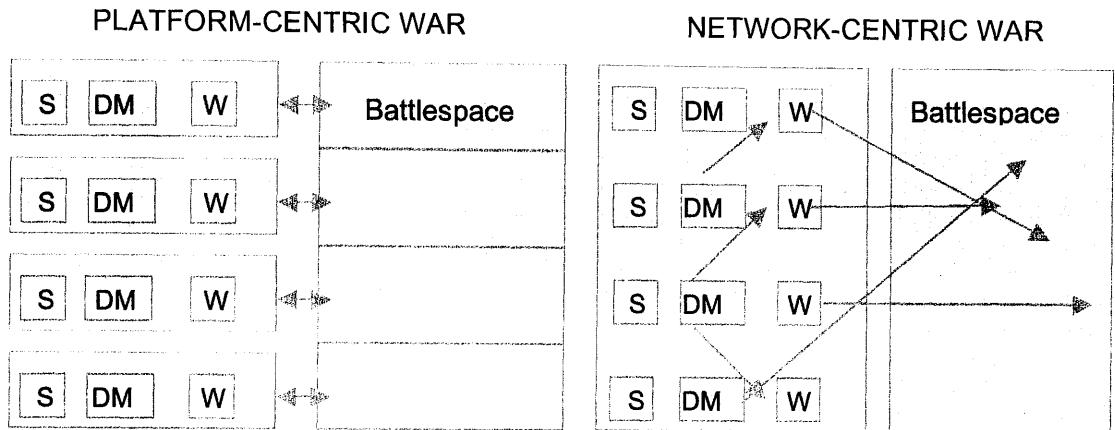
NCW is characterized by the ability of geographically dispersed forces to attain a high level of shared battlespace awareness that is exploited to achieve strategic, operational, and tactical objectives in accordance with the commander's intent. This linking of people, platforms, weapons, sensors, and decision aids into a single network creates a whole that is clearly greater than the sum of its parts. The results are networked forces that operate with increased speed and synchronization and are capable of achieving massed effects, in many situations, without the physical massing of forces required in the past. This increased speed and synchronization directly impacts operations across the battlespace, from support areas through combat zones.<sup>348</sup>

NCW deals in explicitly spatial terms: it is the distribution of forces *through* the battlespace, using modes of coordination and movement that were previously impossible, and the ability to generate a speed of action that defies the usual spatial limits of 'remoteness,' distance, and separation that sets NCW apart from its unnetworked counterpart.

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<sup>347</sup> See, Office of Force Transformation (OFT), *Elements of Defense Transformation* (Washington, DC: Office of Secretary of Defense, 2004); Office of Force Transformation (OFT), *The Implementation of NCW*, 7-10.

<sup>348</sup> Vice Admiral Cebrowski, in, Office of Force Transformation (OFT), *The Implementation of NCW*, i-ii.



**FIGURE 1. Sensor—Decision-maker—Weapon chains in traditional and Network-Centric Warfare.** (Adapted from W. Perry, “Network-Centric Warfare: Measuring the Effectiveness of Networked Forces,” paper presented at RAND New Securities Forum, Washington DC, September 2004.)

This is apparent even in the more technical rendering of NCW as the networking of the sensor-to-shooter chain (this is the chain whereby the sensor identifies enemy; a decision-maker allocates a weapon to target the enemy; a weapon attacks the enemy). In this rendering networking technologies enable decision-makers to pass off sensor information to more proximate weapons out of their chain of command. This results in NCW acting to ‘de-linearise’ and de-compartmentalise the battlespace. This phenomenon is illustrated in Figure 1.

All of this implies a profoundly new ordering of the designated space of military violence. In particular, critical theorists use the network’s role in ordering space in this military concept to highlight the possible penetration of the ‘pipelines’ and ‘flows’ that constitute our increasingly networked society by US military violence – that is, the space of networked warfare is seen as coterminous with the space of networked society. In one of the earliest articulations of this perspective, Michael Dillon argues that:

The many theatres of this network-centric warfare will be as virtual as they will be geographic, coursing through the capillaries and conduits that comprise network society itself. Conflict will

newly configure and exploit these virtual spaces of encounter: re-routing, re-regulating and re-engineering global flows through them.

The duration of hostilities threatens to be just as indeterminate as the new battlespaces. The tempi of operations will also be diverse with speed, lethality, range and duration modulated. Or so it is idealized in the new strategic literature.<sup>349</sup>

This expanded battlespace is distinct from the 19<sup>th</sup> century “battle-field,” or the mid-20<sup>th</sup> century “theater of operations” or “combat zone.”<sup>350</sup> The battlefield, for example, is a site which sees civilian geographies disappear under the brute materiality of violence. It is not like the battlespace, which is a (securitised, often semi-civilian) space *through* which military practices flow. Think for a moment of Erich Maria Remarque’s descriptions of soldiers lolling in empty French villages, whose existence in the middle of the battlefield is without consequence, except in terms of the dubious comforts and safety the buildings left behind might provide.

The village gradually vanishes under the shells and we lead a charmed life. So long as any part of the supply dump still stands we don’t worry, we desire nothing better than to stay here till the end of the war.<sup>351</sup>

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<sup>349</sup> Michael Dillon, "Network Society, Network-Centric Warfare and the State of Emergency," *Theory, Culture and Society* 19, no. 4 (2002): 74.

<sup>350</sup> See, Francis Lieber, "Instructions for the Government of Armies of the United States in the Field (Lieber Code)" (Avalon Project, Yale Law School, 1863), <http://www.yale.edu/lawweb/avalon/lieber.htm>; United States War Department, "Field Service Regulations: Operations" (ibiblio, 1941), <http://www.ibiblio.org/hyperwar/USA/ref/FM-100-5/FM-100-5-1.html>.

<sup>351</sup> Erich Maria Remarque, *All Quiet on the Western Front* (London: Pan Books, 1987), 156. The complete disregard for civilian geographies is surely given up by the use of the word ‘and’: “The village gradually vanishes under the shells *and* we lead a charmed life.” Nicholas Saunders explores the close links between the destruction of human (civilian) landscapes and the exercise of violence in World War I further, arguing, for example, that:

The chaos and desolation of the battlefields after battle is often described by such words as ‘skeleton’, ‘gaunt’ and ‘broken’, in such a way that imagery phases in and out between landscape, village and human corpse. The result was ‘a close connection, *an osmosis between the death of men, of objects, of places*’ (Audoin-Rouzeau 1992: 81).

On the other hand, the shift in the focus of military spatiality from the battlefield to the “theater of war,” “theater of operations,” or the “combat zone” by World War II indicates that violence is now understood as being deliberately productive of a series of (spatial) relations that penetrate beyond the specific site of armed combat. The most obvious of these is the interpenetration between the civilian and military economies as a result of the vastly increased use and rationalisation of logistics.<sup>352</sup> For example, the opening provisions of the US Army’s Field Service Regulations from World War II define the relevant geographic areas of activity:

1. The theater of war comprises those areas of land, sea, and air which are, or may become, directly involved in the conduct of war.
2. A theater of operations is an area of the theater of war necessary for military operations and the administration and supply incident to military operations. The War Department designates one or more theaters of operations.
3. A combat zone comprises that part of a theater of operations required for the active operations of the combatant forces.<sup>353</sup>

The *battlespace*, by contrast, makes more complex both civilian *and* military geographies. In fact, it is so inclusive as to disregard them as categories of distinction at all, replacing them both with the broader ordering principles of the networks.

According to the definition of the Joint Chiefs of Staff, the battlespace is:

The environment, factors and conditions that must be understood to successfully apply combat power, protect the force, or complete the mission. This includes the air, land, sea, space, and the included enemy and friendly forces; facilities; weather; terrain; the electromagnetic spectrum; and

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Nicholas J. Saunders, *Trench Art: Materialities and Memories of War* (New York, NY: Berg, 2003), 128 (emphasis added).

<sup>352</sup> For a description of the gradual penetration of logistics into civilian economies, see, Martin van Creveld, *Supplying War: Logistics from Wallenstein to Patton* (2nd Edition) (Cambridge: Cambridge University Press, 2004).

<sup>353</sup> United States War Department, "FM 100-5 (1941)," 1.1-1.3.

the information environment within the operational areas and areas of interest. See also **electromagnetic spectrum; information environment; joint intelligence preparation of the battlespace.**<sup>354</sup>

This Borges-esque definition puts the permissive qualities of the list to good use: the battlespace is not simply a space in and through which brute force is exercised (air, land, sea), but rather is ‘itself’ an active participant in the battle – or, more accurately, comprises such elements. These elements include enemy and friendly forces, “facilities” (also defined through a highly inclusive definition of civilian and military infrastructure), and the weather. These elements also include things that are not traditionally considered ‘spatial’ at all (the electromagnetic spectrum, and, even further removed, the information environment). As Figure 2 indicates, the battlespace is a hybrid entity of the material and immaterial, the civilian and the military. These are pulled together in a manner that is totally foreign to the distinction drawn above between the “theater of war” and the “theater of operations,” which are viewed as geographically distinct (though contiguous) entities.

This extension of the scope and complexity of the understanding of the designated location of military violence responds in part to the concerns of a (part of the) military attempting to deal with a networked world, a world composed of objects held in place (in space) only through their contingent relationships with other objects. The contingency of these relations is emphasised by their biological-like emergence, as though they were components of “ecosystems.”<sup>355</sup>

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<sup>354</sup> Director for Operational Plans and Joint Force Development, *Department of Defense Dictionary of Military and Associated Terms* (Washington, DC: Department of Defense, 2002), 53 (emphasis original).

<sup>355</sup> Cebrowski et al., “NCW: Its Origin and Future”.

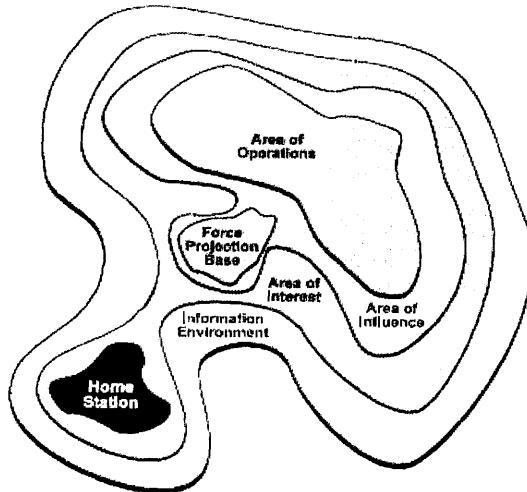


FIGURE 2. **Battlespace components.** [Reprinted from Department of the Army, *Operations: Field Manual 3-0* (Washington, DC: Department of Defense, 2001), 4-21.]

As Michael Dillon and Julian Reid note, such an understanding of the world as being formed of complex and evolving networks (systems) draws in turn on discourses that relate biological life with the digitisation of information implicit in the computing revolution of the 20<sup>th</sup> century.<sup>356</sup> This conflation is noted by scholars as existing in diverse contexts, from the pursuit of artificial life through to the attempt to read the 'book of life' in the human DNA sequence.<sup>357</sup> It leads to the phenomenon of 'informationalisation,' whereby things are understood as essentially comprising and being responsive to the ordering principles of information. 'Life-as-information' is often expressed through the lexicon of complexity science (think of the nonlinear expansion of mould, not to mention the swarming of bees and the growth of crystals – life that responds to the mathematics and topography of complexity), such that organisations like the US military have come to view themselves as part of a complex, constantly mobile, and evolving (biological-style) system. As a result, the ordering of

<sup>356</sup> See, Michael Dillon and Julian Reid, "Global Liberal Governance: Biopolitics, Security and War," *Millennium: Journal of International Studies* 30, no. 1 (2001).

<sup>357</sup> Sarah Kember, *Cyberfeminism and Artificial Life* (London: Routledge, 2003); Lily E. Kay, *Who Wrote the Book of Life? A History of the Genetic Code* (Stanford, CA: Stanford University Press, 2000); N. Katherine Hayles, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics* (Chicago, IL: University of Chicago Press, 1999).

violence results from the novel configuration of networked space in Western society (and an accompanying mode of informationalised subjectivity).<sup>358</sup>

### The multi-dimensional urban battlespace

Proponents of NCW present a confident and all-encompassing understanding of the battlespace, where systems (no matter how complex, seemingly) can be engineered and understood. By contrast, US military concepts and doctrine relating to urban combat illustrate a surprising degree of uncertainty and doubt.<sup>359</sup> Much of this uncertainty stems from the lack of easy routes of penetration (for both forces and intelligence) into densely built urban environments, rendering ineffective the factors on which mid-to-late 20<sup>th</sup> century US military supremacy is built: superior stand-off firepower, and advanced intelligence, surveillance, and reconnaissance (ISR). This lesson was graphically demonstrated during the US military intervention-cum-peacekeeping operation in Mogadishu during 1993. Authors such as Stephen Graham have been instrumental in revealing the ways in which US military discourse is saturated with a fear of the 'dirt,' poverty, and chaos of the city (especially the underdeveloped city).<sup>360</sup> This is true to such an extent that the recently revised US

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<sup>358</sup> Informationalisation is explored in the following, see, 180-83.

<sup>359</sup> For an account of the ad hoc manner in which the US Army has formulated its urban combat doctrine, see, Roger Spi Her, "Sharp Corners: Combat Operations in Urban Areas," in *Future Armies, Future Challenges: Land Warfare in the Information Age*, ed. Michael Evans, Russell Parkin and Alan Ryan, 82-95 (Crows Nest, NSW: Allen & Unwin, 2004).

<sup>360</sup> See, for example, Stephen Graham, "Cities as Strategic Sites: Place Annihilation and Urban Geopolitics," in *Cities, War, and Terrorism: Towards an Urban Geopolitics*, ed. Stephen Graham, 31-53 (Malden, MA: Blackwell Publishing, 2004). For a discussion of these discourses in the context of the Western city's vulnerability to terrorism, see, Jon Coaffee, *Terrorism, Risk and the City: The Making of a Contemporary Urban Landscape* (Aldershot: Ashgate Publishing, 2003). For an exploration of these urban discourses in a non-military context, see, Nigel Thrift, "But Malice Aforethought: Cities and the Natural History of Hatred," *Transactions of the Institute of British Geographers* 30, no. 20 (2005).

Army Field Manual on Urban Operations conceptually distinguishes between the negative effects of urbanisation and the threats posed by the enemy.<sup>361</sup>

The anxiety of urban conflict is apparent in the Army's ongoing discussion of the *three-dimensional nature* of the city (the “multi-dimensional battlefield”), a topography that is full of places to hide, that blocks some of the more sophisticated electronic intelligence-gathering devices, and that disguises and places civilians between the enemy and the Army.<sup>362</sup> This final factor also emphasises one of the US Army's strongest concerns in the urban environment: its usefulness for enemies prosecuting an asymmetric war.<sup>363</sup>

There is, then, a concrete US military concern with the geographic complexity of the urban environment. For example, US Army Field Manual 3-06, a complete statement of Army doctrine relating to urban warfare, emphasises the complexity of urban environments as sites of military operation:

The *urban environment* includes the physical aspects of the urban area as well as the complex and dynamic interaction and relationships between its key components – the terrain (natural and man-made), the population, and the supporting infrastructure – *as an overlapping and interdependent system of systems*.<sup>364</sup>

Note here that urban warfare doctrine overlaps with Network-Centric Warfare in viewing the environment as a network, but this time, implicitly at least, one into which it is difficult for the US Army to ‘plug’ itself in order to form key nodes of force and security.

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<sup>361</sup> Specifically, the Field Manual raises concerns under the categories of “general instability,” “food and water shortages,” “disease and pollution,” and “competing power structures,” including urban insurgencies, merchant classes, criminal organisations, and warlords. Department of the Army, *Field Manual 3-06: Urban Operations* (Washington, DC: Department of Defense, 2003), 3-34-3-56.

<sup>362</sup> See, Department of the Army, *FM 3-06*, 2.8.

<sup>363</sup> See, Department of the Army, *FM 3-06*, Chapter Three.

<sup>364</sup> Department of the Army, *FM 3-06*, 1.3 (former emphasis original, latter emphasis added).

This ‘network emphasis’ emerged in the recently revised FM 3-06, regarding the need as a response to the perceived need to refurbish ‘traditional’ US Army approaches to urban war. Conventional approaches, dating back to before World War II favoured a “systematic linear approach” using stand-off weapons and firepower in order to achieve territorial dominance.<sup>365</sup> FM 3-06 instead emphasises close combat (accepting the likelihood of casualties as a result), arguing for the effectiveness of inserting forces into the battlespace at “essential” points (ranging from holding key strategic terrain through to the provision of infrastructure rebuilding).<sup>366</sup> The US Marine Corp’s “Three Block War” concept is, in many respects, the equivalent of the Army urban warfare concept. James Szepesy argues that three-block warfare and NCW intersect in the figure of the “strategic corporal,” a reference to highly decentralised command and control and the importance of small-scale human networks in successful operations.<sup>367</sup> As with US Army doctrine, the emphasis is on inserting (potentially small) groups of networked forces into key sites of the urban battlefield in order to achieve maximum effect.

Urban warfare doctrine emphasises an overlapping but different kind of space to that of NCW. NCW, with its emphasis on a spatiality comprising contingently arranged, highly mobile and mutating systems (both civilian and military) contrasts with the more concretely observed doctrine of urban warfare, whose emphasis is on the difficult, impenetrable, and multi-dimensional nature of the city as a site of war.

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<sup>365</sup> Department of the Army, *FM 3-06*, 5.13.

<sup>366</sup> Department of the Army, *FM 3-06*, 5.13-5.14.

<sup>367</sup> The phrase “Three Block War” refers to the possibility of having to fight dramatically different kinds of war (from high-intensity combat through to peacekeeping operations and the provision of aid to civilian populations) within the space of three city blocks. See, James E. Szepesy, “The Strategic Corporal and the Emerging Battlefield: The Nexus Between the USMC’s Three Block War Concept and Network Centric Warfare” (Tufts University, 2005), <http://fletcher.tufts.edu/research/2005/Szepesy.pdf>.

## Urban battlespaces: the spatial logic(s) of US military doctrine meet the experimental space(s) of the city of Baghdad

Baghdad, a city about the size of Chicago in population density, and Austin, Texas, in landmass, divided through the center by the Tigris River, is, like many overpopulated yet underdeveloped cities, subdivided into neighborhoods with distinct demographic divergences, reliant on a social system of governance based on tribal and religious affiliations, and interconnected by modern lines of communication and technology. The neglect by Saddam Hussein and the gray period following initial coalition combat operations created those 'ripe' conditions in Baghdad.<sup>368</sup>

1<sup>st</sup> Cavalry Division, with which the fieldwork which comprises the core of this thesis was undertaken, is one of the US Army's premier Divisions (one of two 'Digital' Divisions). It has been an early recipient of transformational technology, as well as an early implementer of network-centric doctrine. For this reason, it offers a good vantage point from which to explore the spatialising practices of the US Army in Baghdad as related to concepts both of network-centric and urban warfare.

The epigraph to this section is drawn from an article co-authored by 1<sup>st</sup> Cavalry's Commanding General following the Cavalry's deployment in Baghdad from April 2004 to April 2005. General Chiarelli's writings provide insights into the multiple nature of the battlespace confronted by 1<sup>st</sup> Cavalry during their time in Baghdad. In particular, Chiarelli's writings emphasise that the space of the city is multiple. On the one hand, it is three-dimensional, block-like, and creative of vertical and horizontal surfaces with which the Army must contend. As such it is a divided, demarcated space, a space divided by neighbourhood, by demography, by designated Areas of

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<sup>368</sup> Maj. Gen. Peter W. Chiarelli and Maj. Patrick R. Michaelis, "Winning the Peace: The Requirement for Full Spectrum Operations," *Military Review* July-August (2005): 5.

Operations – a space divided by a mobilising friend/enemy distinction.<sup>369</sup> Yet Baghdad is *also* “interconnected by modern lines of communication and technology.”<sup>370</sup> It is a space where streets and highways are always flowing: a site of the excessive intersection of different systems (economic, political, social, religious, and military); a moving background of civilian and enemy activity that disguises what the Army might want to see – and sometimes (reverting to a non-networked mode of operation) actively denies access entirely. In this, the city *also* operates as a networked space of flows, one that might form the subject of the controls and regulations that Deleuze suggests accompany the ‘control society.’<sup>371</sup> In Chiarelli and Michaelis’s analysis, Baghdad responds to different ordering principles, and therefore different modes of power/knowledge/space. Diken and Laustsen make a similar point more generally regarding the multiple logics at play in the contemporary city when they argue that:

Today, disciplinary enclosure seems to be only one among three organizing principles of urbanism. The contemporary city is also organized according to the principles of control, based on the regulation/coding of flows and naked violence, terror.<sup>372</sup>

Interestingly, at an *operational* level 1<sup>st</sup> Cavalry in Baghdad was strongly influenced by the NCW paradigm, approaching the city as a set of regulated flows and complex systems. In particular, General Chiarelli addressed Baghdad as a ‘system of systems,’ simultaneously pursuing five “lines of operation” essential for the successful

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<sup>369</sup> For a discussion of the importance of the friend/enemy distinction in the spatial ordering of contemporary international relations, see, Mitchell Dean, “A Political Mythology of World Order: Carl Schmitt’s *Nomos*,” *Theory, Culture & Society* 23, no. 5 (2006): 2-4; Dillon, “NCW and the State of Emergency”, 74-75.

<sup>370</sup> Chiarelli et al., “Winning the Peace,” 5.

<sup>371</sup> See, Gilles Deleuze, *Negotiations, 1972-1990* (New York, NY: Columbia University Press, 1995), 177-82. See also, above, 67-68.

<sup>372</sup> Bülent Diken, and Carsten Bagge Laustsen, “Zones of Indistinction: Security, Terror, and Bare Life,” *Space and Culture* 5, no. 3 (2002): 291.

functioning of the city. These lines of operation were: running combat operations (search and destroy operations); training Iraqi security forces; providing essential services; promoting indigenous governance; and promoting economic pluralism.<sup>373</sup>

However, at a *tactical* level Chiarelli exposed his ambivalence toward a highly technological version of networked spatiality. In particular, in an article on the use of heavy armour in urban combat (Bradley Fighting Vehicles and M1A2 Abrams tanks), Chiarelli opens with these foreboding words:

The new fight brings to light a cautionary message to the force – be wary of eliminating or reducing the option of heavy armor; it has proven decisive and has been the critical enabler that allowed T[ask] F[orce] Baghdad to win every fight, everyday. The enemy we fight in streets and crypts is not connected by a vast suite of electronics packages; instead, they use proven kinetic techniques, such as the rocket-propelled grenade (RPG), the command-detonated improvised explosive device (IED), the mortar, and the AK47 in an asymmetric fashion, using the concrete valleys of the cityscape to their advantage.

This evolution in warfare is not a side note in history; it is a foreshadowing of operations to come. The mass migration of humanity to cities and the inability of third-world nations to keep abreast of basic city services relative to growth, breeds discontent. It is a harvesting ground for fundamentalist ideologues.<sup>374</sup>

Chiarelli's article emphasises that while networking technologies are important in urban combat, it is combinations of old and new technologies and tactics that enable the successful navigation of the urban battlespace – for example, through the innovative joining of old-style, thick-skinned tanks capable of withstanding

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<sup>373</sup> Chiarelli et al., "Winning the Peace," 7.

<sup>374</sup> Maj. Gen. Peter W. Chiarelli, Maj. Patrick R. Michaelis, and Maj. Geoffrey A. Norman, "Armor in Urban Terrain: The Critical Enabler," *Armor* 114, no. 2 (2005), [http://www.angelfire.com/art2/narod/armour\\_urban\\_terrain\\_iraq/](http://www.angelfire.com/art2/narod/armour_urban_terrain_iraq/).

improvised explosive device (IED) blasts with high-tech vision and communication capabilities.<sup>375</sup>

In the context of Baghdad, 1<sup>st</sup> Cavalry rejected the wholesale use of conventional urban warfare doctrine in favour of an approach that drew on some aspects of the NCW concept, while innovating beyond the bounds of both. For example, traditional urban doctrine argues that tanks should move through urban terrain in fixed column formation, with hatches open to draw fire in order to allow for target identification and easy escape in the event of a catastrophic anti-armour attack. These tactics compensate for the perceived vulnerability of tanks in urban environments, where catastrophic attacks might be launched from hidden locations. Yet the relatively light kinetic impacts of the attacks launched by insurgents in Baghdad (particularly in the early years of the occupation) made it possible for tanks to survive the initial impact of IEDs, while it was open hatches that presented a danger to soldiers inside, due to the sniper firing-angles presented by the verticality of the urban environment. As a result, 1<sup>st</sup> Cavalry reversed its tactics.

In particular for 1<sup>st</sup> Cavalry successful movement of tanks in urban terrain became summarised according to three concepts:

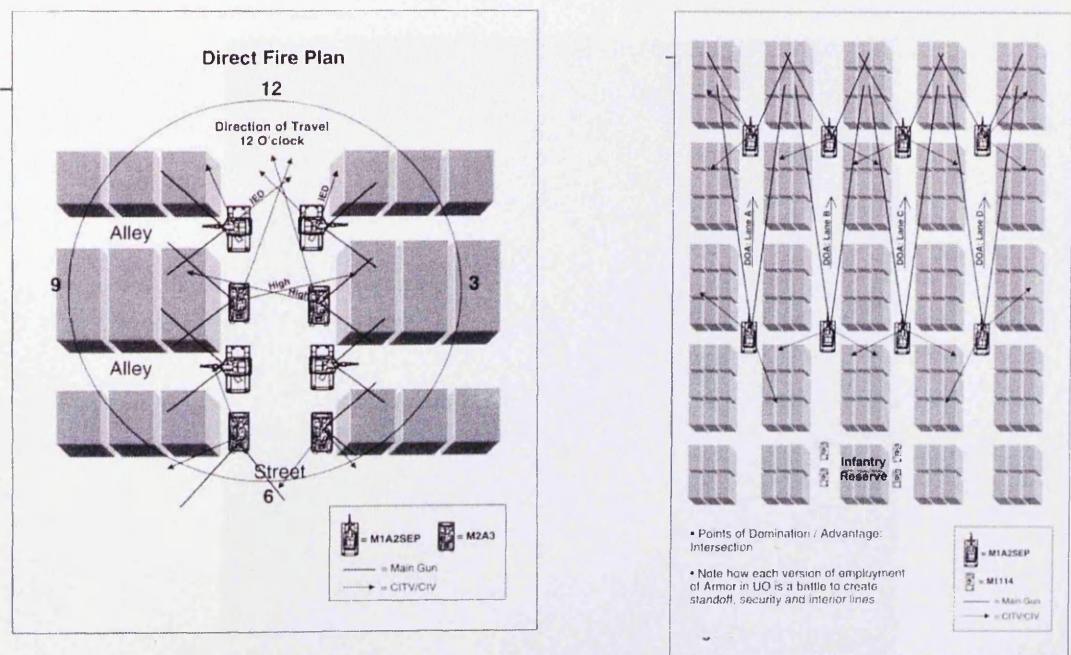
- creating *security*, by travelling 'buttoned up' (with hatches closed) and using the vision technologies of the tanks to enable target identification, and by moving to and occupying points of domination where US weapons worked to their best advantage;

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<sup>375</sup> For a discussion of tank/infantry cooperation in the second battle of Fallujah that emphasises similar points, see, Capt. Michael D. Skaggs, "Tank-Infantry Integration," *Marine Corps Gazette* 89, no. 6 (2005).

- creating “*standoff*” (the capability to create “reaction time to allow servicing of targets”), *either* through strategic stops or through continuous movement; and
- creating *interior lines* (minimising surfaces presented to the ‘external’ battlespace, for example, by travelling in a box-like formation), a tactic which “further offsets the enemy’s propensity to execute simultaneous attacks from multiple surface and elevated avenues of approach.”<sup>376</sup>

Figures 3 and 4 illustrate in some detail the kind of battlespace that is conceived in these urban warfare tactics.



FIGURES 3 AND 4. Effective tank formations in urban warfare, as utilised by 1<sup>st</sup> Cavalry Division in Sadr City (Baghdad) and An Najaf. [Reprinted from Maj. Gen. Peter W. Chiarelli, Maj. Patrick R. Michaelis, and Maj. Geoffrey A. Norman, "Armor in Urban Terrain: The Critical Enabler," *Armor* 114, no. 2 (2005), [http://www.angelfire.com/art2/narod/armour\\_urban\\_terrain\\_iraq/](http://www.angelfire.com/art2/narod/armour_urban_terrain_iraq/).]

The space presented in these tactics is subtly different to that indicated in NCW. Where NCW allows for the coordinated distribution of forces *through* the battlespace, allowing commanders to avoid massing force, and utilising overwhelming speed of

<sup>376</sup> Chiarelli et al., "Armor in Urban Terrain."

action that defies limits of remoteness, this space relies on a deliberate massing of physical objects (tanks in box formation, for example) and the deliberate creation of internal ‘safe’ spaces through spatial configuration. In Baghdad convoys were the name of the game. These are hardly the infinitely mobile units depicted in some of the more imaginative accounts of NCW.<sup>377</sup> Yet this is not a linear form of movement with the sequential domination of demarcated space. Rather, the “standoff” discussed is a form of movement that is perhaps reminiscent of the Israeli Defence Forces discussed in Chapter One, which attempted to gain absolute movement (to *smooth space*) through a seemingly paradoxical waiting game.



FIGURE 5. US tanks moving in ‘traditional’ formation through Sadr City (Baghdad). [Courtesy of Google Earth (2006)].

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<sup>377</sup> In fact, at some points NCW proponents have been actively hostile to increased use of heavy armour in combat. Vice Admiral Arthur Cebrowski, the late head of the Office of Force Transformation, has said that, even in the context of OIF, he tends to “come down more on the speed and information side” over the value of armour:

I look at these marvellous navy and air force munitions and what they do to armour. I look at what one of our own tank rounds does to everyone else’s armour in the world. The notion that steel protects just does not seem to be there because it does not protect in the absolute.

Cebrowski, cited, Frederick W. Kagan, "War and Aftermath," *Policy Review* 120 (2003): 3.

Looking at the history of the US Army's engagement in Baghdad, there are behaviours which both smooth *and* striate space, and, in particular, which respond to the dynamics of either urban warfare or Network-Centric Warfare – or both. For example, the 3<sup>rd</sup> Infantry Division's Thunder Runs on the 5<sup>th</sup> and 8<sup>th</sup> of April, 2003 were classic examples of NCW in operation. Charging through the streets of Baghdad, with no territorial objective in mind other than to see whether it could be done, 3ID's tanks shifted the centre of gravity of the fight for Baghdad through speed of action alone.<sup>378</sup> Never mind that, in reality, the American troops were terrified of the way in which they were cut off from their support base, bloodied from fierce fighting, and only able to stay in Baghdad for only a single night, the image of tanks moving through the city seemingly at will was sufficient to make the Hussein regime's pronouncements of the successful defence of Iraq seem far-fetched, even hysterical.

We see here that “networked forces that operate with increased speed and synchronization are capable of achieving massed effects, in many situations, without the physical massing of forces required in the past.”<sup>379</sup> Yet this “absolute state of a moving body *occupying a smooth space*” is only one of the spatialising practices of the US military.<sup>380</sup> One might alternatively point to the extensive use of roadblocks to check and control the circulation of the city as indicative of a certain striating tendency – one that has sadly been adopted with enthusiasm by neighbourhood militias and death squads. Further, the use of night-time curfews, now common in Baghdad, illustrates the US military's implication in the domination and

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<sup>378</sup> For a detailed account of the Thunder Runs, 3ID's luck in navigating them so successfully, and the haphazard way in which they turned into symbols of the fall of Baghdad, see, Michael Gordon and Bernard Trainor, *Cobra II: The Inside Story of the Invasion and Occupation of Iraq* (London: Atlantic Books, 2006), Chapters 19 and 20.

<sup>379</sup> Vice Admiral Cebrowski (ret.), in, Office of Force Transformation (OFT), *The Implementation of NCW*, ii.

<sup>380</sup> Gilles Deleuze and Félix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia* Vol. 2 (London: Continuum, 2004), 426 (emphasis added).

subordination of rhythms of the city, altering the very fabric of lived time in the city through counting and measuring it.<sup>381</sup>

These brief examples indicate the multiplicity of spatialising practices in place in Baghdad. Despite attempts by critical theorists and military analysts alike to seek one governing discourse, one 'style' of American war, on which to pin disapproval of (or disappointment in) the Iraqi venture, there is no singularity of battlespace. Rather, many different kinds of battlespace are implicated in many different kinds of US military enactments of violence. Sometimes these respond in simple ways to the spatialities constructed through military concepts, although more often they do not. The following chapter addresses the multiplicity of the battlespace, not in terms of the multiple kinds of battlespaces enacted in Baghdad, but rather in terms of *how* the US military addresses that multiplicity. As one of the most significant features of the US military enterprise in Iraq has been the US military's acknowledgement of the multiplicity, mess, and complexity of the situation, it is possible to see its attempt to organise multiplicity as an attempt to operationalise the alternative real outlined previously.

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<sup>381</sup> For a discussion of the impact of the curfew on everyday life in Baghdad, see, Sahira Rasheed, "Midwives Risk Baghdad Curfew" (Institute for War and Peace Reporting, 2005), [http://www.iwpr.net/?p\\_icr&s=f&o=254017&apc\\_state=heniicr2005](http://www.iwpr.net/?p_icr&s=f&o=254017&apc_state=heniicr2005).

## CHAPTER THREE

# CPOF: commanding the future

### Locating spatial practices of violence in Baghdad

This thesis began by asserting that it is possible to explore violence as an experimental and productive force. The first chapter argued that, to explore violence in this way, it is necessary to get 'below' the over-determined level of strategy, where violence is apparently instrumentalised by (political) agency or structural configuration, and 'above' the level of the supposed anarchy of the moment of combat. Rather, the chapter suggested that it is possible to witness in the *spatialising practices* of violence (particularly in the everyday practices of violence) the emergence of novel and competing modes of ordering violence. The nexus between (open formations of) violence and space was explored through the work of Foucault, in which spatial orderings of violence are historically contingent arrangements of decentred subjects and objects (although, in practice, Foucault's assessment tends to affix practices of violence to rigid configurations of power/knowledge/space); through the work of Lefebvre, in which the relationality of Foucault's understanding of space is given real flexibility by including the openness of everyday rhythms to

repetition *and* change; and through the work of Deleuze and Guattari, in which the differentiating (vitalist) operation of spatialising assemblages is shown to be intimately related to shifting 'kinds' of violence.

Taking these insights as a starting point, the rest of this thesis looks to the city of Baghdad to illustrate how the US military engaged in hybridised and experimental behaviour. Specifically, this thesis argues that the spatial practices of violence in Baghdad are a figure of a truly 'new' security problematic that is not easily confined within the "geo-mythography" of contemporary security debates, but which instead is related to the US military's self-reflexive response to a multiple, slippery, and uncertain real.<sup>382</sup>

This chapter outlines the qualitative study on which this thesis is based, exploring 1<sup>st</sup> Cavalry Division's use of a new command and control technology, Command Post of the Future (CPOF, pronounced 'c-pof'). The study consists of interviews carried out with returned soldiers from 1<sup>st</sup> Cavalry who had been operating in Baghdad during Operation Iraqi Freedom Phase II (OIF-II, the phase immediately after the invasion, that lasted roughly from April 2004 to April 2005). These interviews, undertaken at the Cavalry's home base of Fort Hood, Texas during June 2005 (about two months after the Division's return from deployment), took place at nearly every level throughout the Division, from senior members of the Commanding General's staff in the Divisional Headquarters, through to enlisted men who worked in Battalion-level Tactical Operations Centres (TOCs). All of the interviewees worked in some way with CPOF.<sup>383</sup> The interviews also encompassed the civilian contractors supporting CPOF who deployed with 1<sup>st</sup> Cavalry to Baghdad to troubleshoot the new

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<sup>382</sup> For a discussion of the role of "geo-mythography" in shaping contemporary security discourse, see, Mitchell Dean, "A Political Mythology of World Order: Carl Schmitt's *Nomos*," *Theory, Culture & Society* 23, no. 5 (2006): 3.

<sup>383</sup> For a summary of the structure of US Army Divisions, see Figure 10.

system. These contractors had the advantage of having seen CPOF as used by the Cavalry's replacement force, 3<sup>rd</sup> Infantry Division, after 1<sup>st</sup> Cavalry's return home in 2005, providing them with insight into alternative modes of using the technology. These interviews were supplemented by observation of 4<sup>th</sup> Infantry Division (with whom 1<sup>st</sup> Cavalry share Fort Hood) using CPOF in a simulated Iraq-style environment, as well as observation of classes of new soldiers from both 1<sup>st</sup> Cavalry and 4<sup>th</sup> Infantry Division learning to use the technology.

1<sup>st</sup> Cavalry Division is one the US Army's premier Divisions (one of two so-called Digital Divisions), and as such, offers an excellent location from which to study the novelty of the ways in which the US Army has engaged the complex situation in Baghdad. Its situation, however, should not be over-generalised. 1<sup>st</sup> Cavalry entered the war at a precarious stage, and its experience in Baghdad is far from a 'universal' experience of Operation Iraqi Freedom (OIF). Briefly put, when the Cavalry arrived in April 2004 the US military had effectively destroyed the Baathist regime, and was facing only the early stages of an insurgency which was undefined in its scope and ambitions. Parts of the insurgency derived from the (ethnically Sunni but secularly motivated) irregular forces, or Fedayeen, established by Saddam Hussein's regime as a form of civil defence; parts were inspired by a Sunni religious jihad, including those mujahadeen led by al-Qaeda. In Sadr City, meanwhile, an explicitly religious, but at this stage still ostensibly 'patriotic' and 'nationalistic' Shi'ite militia, the Mahdi Army, began resisting the American occupation just as 1<sup>st</sup> Cavalry assumed command.<sup>384</sup> While it was a very dangerous time to be a Westerner on the streets of Baghdad (at least outside of the Green Zone), there were some signs of a 'normal' Iraqi life resuming in the city proper. Politically, during this period, the Coalition Provisional

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<sup>384</sup> For more details of the early composition of the insurgency in Iraq, see, Michael Gordon and Bernard Trainor, *Cobra II: The Inside Story of the Invasion and Occupation of Iraq* (London: Atlantic Books, 2006), Chapters 13-24. For an intimate study of 1<sup>st</sup> Cavalry's first engagement in Sadr City, see, Martha Raddatz, *The Long Road Home: A Story of War and Family* (New York, NY: GP Putnam's Sons, 2007).

Authority transitioned sovereignty to an unelected Iraqi government on 29<sup>th</sup> June, 2004, and elections to determine the country's constitution (and subsequent democratic future) were held in November of that year. There were high hopes that a democratically elected, publicly legitimate government would be able to stem the insurgency. Funds for reconstruction, however, continued to be disbursed largely through US military as well as international civilian agencies.

Importantly, none of the concerns that dominate discussion of Iraq (and particularly Baghdad) today – the likelihood of civil war; the formation of rival Shi'ite and Sunni militias (death squads); the dramatically escalating nature and number of deliberately targeted attacks against civilians; the Parliament's inability to form a stable (and united) government; interference by Iran and Syria; mass refugee flows; and the possibility of Iraq becoming a failed state – were dominant in discussion of Iraq at the time. In other words, while it was certainly bloody, the situation did not yet seem as intractably insoluble as it does today (see, in particular, Figure 7).<sup>385</sup> 1<sup>st</sup> Cavalry's form of engagement with Baghdad during this period took a very different form to that taken on its return to Iraq in August 2006.

Further, CPOF is a small technology and does not contain the entire of 1<sup>st</sup> Cavalry's experience of Baghdad. It does not, for example, address important issues such as patrol tactics, taking and dealing with prisoners, and the training of the Iraqi National Guard. It is a technology that is confined to command posts, and does not (explicitly) travel to and with the soldiers on the street. However, CPOF's form as a command and control technology opens it onto a world of spatial practice that is largely ignored by doctrine or concepts of war. Doctrine dictates spatial orderings by

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<sup>385</sup> Raddatz, for example, notes that when 1<sup>st</sup> Cavalry soldiers deployed they believed that in Baghdad they would be engaged in no worse than robust peacekeeping. See, Raddatz, *The Long Road Home*, 32-35.

producing knowledge about the battlespace *in the abstract* (knowledge about a generic battlespace, a generic enemy), which is then routinised through tactics, techniques, and procedures (TTPs). In this, Foucault's discussion of dressage explored in Chapter One of this thesis is a discussion of doctrine, emphasising as it does the routine and pre-determined activities of the 18th-century military. Command, on the other hand, is implicated in spatial orderings through its involvement in the production and organisation of a flow of knowledge about the battlespace *in specific*. To study command practices, then, is to produce an everyday praxiography of power/knowledge/space regarding the battlespace, and one that does not overly circumscribe the similitude of the repetition of the everyday.

Average Daily Casualties – Iraqi (including ISF) and Coalition  
1 Apr 04 – 12 May 06

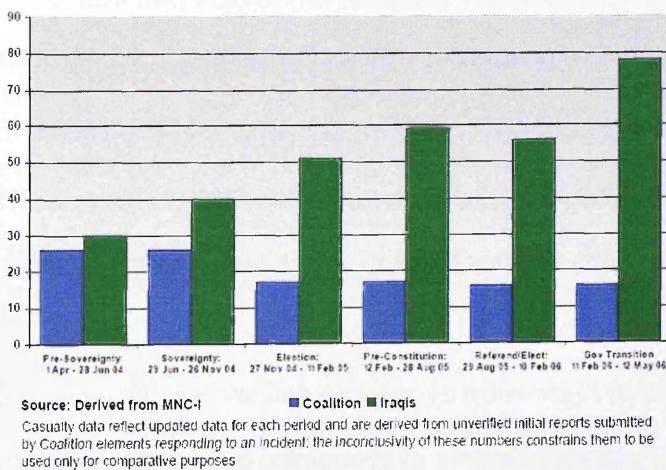


FIGURE 6. Average daily casualties in Iraq, broken down by political event.  
[GlobalSecurity.org, (2006)  
<http://www.globalsecurity.org/military/ops/images/o6512-attacks1.jpg.>]

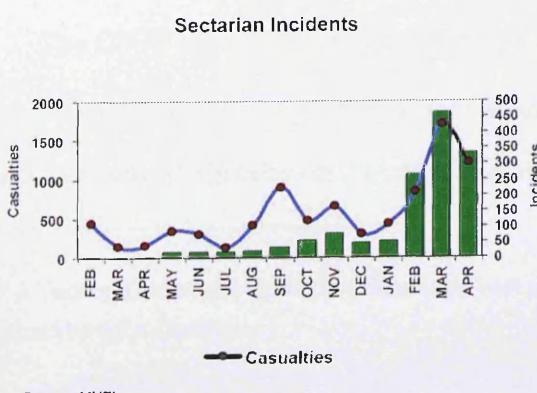


FIGURE 7. The incidence of sectarian violence in Iraq, Feb 2005 – April 2006.  
[GlobalSecurity.org, (2006)  
<http://www.globalsecurity.org/military/ops/images/o6512-attacks3.jpg.>]

This chapter and the following address how CPOF not only is a part of the US military's attempt to operationalise an uncertain and slippery real, but also is implicated in creating the conditions by which that real escapes the US military's grasp. In particular, this chapter and the following explore the consequences of operationalising multiplicity. How does an institution such as the Army produce multiplicity? How does it organise it once it is produced? What happens to the way the Army operates if multiplicity is allowed to exist – or is even encouraged? Answering these questions indicates that in Baghdad the US military is configuring spaces of violence in new and creative ways.

### Using CPOF (1): the hardware and software architecture

Command Post of the Future (CPOF) is a command and control tool used at Divisional headquarters and Tactical Operations Centers (TOCs) throughout a division.<sup>386</sup> It is designed to provide a Common Operating Picture (COP) of the battlespace to users and commanders, and to enable collaborative planning between physically remote locations. In some ways its predecessors are the maps pinned to walls and covered in acetate overlays that have been a common feature of pre-digital headquarters for the last century. In other ways (and particularly because of its communication and collaboration capabilities) it is an entirely new technology.

The CPOF command and control (C2) software and hardware suite was developed by the Defence Advanced Research Projects Agency (DARPA) and deployed brand-new and untested with 1<sup>st</sup> Cavalry on their rotation into Baghdad in 2004. The CPOF system

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<sup>386</sup> A Tactical Operations Center is a Command Post at the lower levels of the military hierarchy, or, as defined by Joint Doctrine:

A physical groupment of those elements of a general and special staff concerned with the current tactical operations and the tactical support thereof. Also called TOC. See also **command post**.  
Director for Operational Plans and Joint Force Development, *Department of Defense Dictionary of Military and Associated Terms* (Washington, DC: Department of Defense, 2002), 434 (emphasis original).

consists of a series of workstations deployed throughout the Division in Divisional headquarters and Brigade TOCs and also deployed down to some Battalion TOCs (see Figure 10 for details of US Army structure).<sup>387</sup> 1<sup>st</sup> Cavalry operated around 75 CPOF units in OIF II, although these were often deployed two or more to a command post. Each workstation comprises three flat-screen computer displays arrayed on a desktop with an ordinary computer hard drive attached. These are connected to a network server, often kept in an adjacent room, that comprises a series of large, washing machine-sized, unfriendly-looking boxes.

The network server's job is to maintain the data within CPOF in a 'liquid format' in a database, and to share this liquid data with other CPOF stations. According to DARPA:

Liquid Information allows the data itself to be separate from the viewing space. This enables the commander to put that data into a number of different displays. In this way, the data becomes modular in that it can be moved and viewed in a number of different ways, depending on the display chosen.<sup>388</sup>

This 'liquefaction' of information resonated with the phenomenon of informationalisation, noted briefly in the Interlude, where information is treated as an ontological category – and an ordering force – in its own right that operates in ways that are entirely independent of its representative or material context.<sup>389</sup> A direct consequence of this information architecture is that data presented on CPOF is "live" – when it is

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<sup>387</sup> The US Army is currently transitioning to a "modular" structure, whereby the traditional Brigade is being replaced by the BCT (Brigade Combat Team). BCTs will no longer be as firmly attached to the Divisional structure, through the placement of key auxiliary functions within their structure, increasing their self-sufficiency and thereby enhancing their rapid deployability. While 1<sup>st</sup> Cavalry is technically participating in this process, the terminology used by interviewees, not to mention the building names and signposts to find interviewees, remains Brigade (Bde). As a result, this is the terminology adopted by this thesis. For more on modularity, see, <http://www.army.mil/modularforces/>.

<sup>388</sup> Defense Advanced Research Projects Agency (DARPA), "Command Post of the Future" (2005), <http://dtsn.darpa.mil/ixo/programs.asp?id=11>.

<sup>389</sup> For a discussion of how this definition of information came to have priority in the field of computer science, as well as an exploration of the different ontological implications of competing definitions, see, N. Katherine Hayles, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics* (Chicago, IL: University of Chicago Press, 1999), Chapter Two.

changed on the screen in one context it is simultaneously changed everywhere.<sup>390</sup> The CPOF system also included a large projection screen which sat at the front of the Tactical Operations Center, onto which the CPOF display was projected.

### Sourcing information for CPOF

Data for CPOF is received in two ways: via direct inputs by the CPOF user, and via the continuous passive reception of information from the Army's latest generation command and control technology suite, Army Battle Command System (ABCS).<sup>391</sup> ABCS is itself an amalgamation of a number of C2 systems, discussed in Figure 8.

As these C2 technologies are deployed to different levels within the Division, the granularity of information differs from source to source. CPOF does not replace ABCS as the primary interface for these C2 systems: indeed, at the time at which CPOF was being used by 1<sup>st</sup> Cavalry, information placed on CPOF did not feed back into the ABCS system. This highlights the intended use of CPOF: CPOF enables a broad (generally operational level) visualisation of, and general communication through, the battlespace, and was not intended to be a tool to enable tactical level management. Despite CPOF's centrality in terms of the placement of the system within the TOC, within that headquarters there would be users working on any number of the component systems of ABCS in a stand-alone format.

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<sup>390</sup> MAYA Viz, "Command Post of the Future Project" (2003),

[http://www.mayaviz.com/web/industries/military/industry\\_mil\\_darpa\\_cpof.mhtml](http://www.mayaviz.com/web/industries/military/industry_mil_darpa_cpof.mhtml), 9.

<sup>391</sup> On this first deployment, CPOF was using ABCS 6.3.6 (on the following deployment it was upgraded to ABCS 6.4).

SYSTEM NAME	SYSTEM FUNCTION	DEPLOYED <sup>392</sup>
<b>BFT/FBCB2</b> (Blue Force Tracker/ Force XXI Battle Command, Brigade and Below)	Automatic location of friendly units (blue forces) on a geographic information system (GIS, or a digital map) via GPS (Global Positioning System) emitter and receiver. BFT is the unclassified version (because of the satellite used to transmit the information), while FBCB2 is the classified version. This system includes a capability for anyone with an emitter to place enemy locations on the map.	Battalion (down) Platoon  (*This means that units from the Bn down have both emitters and receivers. At the time of interview this was true only of the Digitised Divisions, 1 <sup>st</sup> Cav and 4 <sup>th</sup> ID)
<b>MCS</b> (Maneuver Control System)	A general C2 tool, allowing C2 overlays on a digital map (useful for planning), and incorporating general situational awareness (including enemy, or red force, locations).	Corps (down to) Battalion
<b>ASAS</b> (All Source Analysis Systems)	A general intelligence collation and interpretation system for intelligence, target development and target identification.	Division (down to) Brigade
<b>AFATDS</b> (Advanced Field Artillery Tactical Data System)	A tool for organising fire support, including visualising artillery data (such as locations of hostile fire).	Corps (down to) Platoon
<b>AMDWS</b> (Air and Missile Defense Work Stations)	A tool for organising air defence.	Air Defense Artillery Battalion (down)
<b>CSSCS</b> (Combat Service Support Computer System)	A logistics tool.	Division (down to) Brigade

**FIGURE 8. Components of the Army Battle Command System, including the levels at which each system is deployed.** [Adapted from US Army PEO STRI, “Army Tactical Command & Control Systems,” (2004) <http://www.peostri.army.mil/PRODUCTS/ABCS/atecs.jsp.>]

### The CPOF screens: using CPOF

The three screens of each CPOF workstation, what people usually call the CPOF, materialised Liquid Information from ABCS and user inputs for the commander's benefit.<sup>393</sup> The software design of CPOF largely determines the presentation of this data, but users have the ability to tweak their display further.

<sup>392</sup> This refers to the deployed levels of the original ABCS component systems, which gives a sense of the granularity of the information provided in any given system. A system deployed to platoon level, for example, has much greater granularity than one deployed to Brigade level.

<sup>393</sup> It is technically inaccurate to refer to the workstations themselves as CPOF, as it is only when the workstations form an integrated network that they gain functionality.

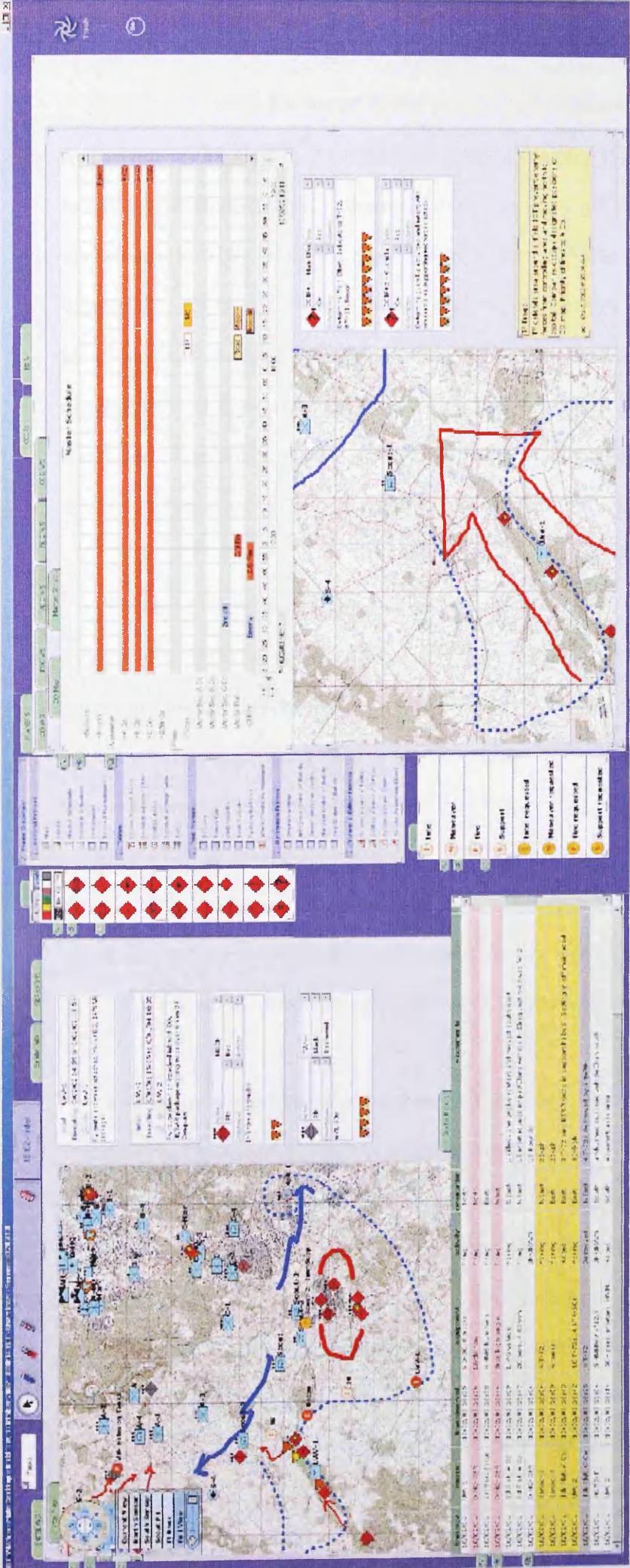
Each of the three screens has a specific function, as well as allowing access to usual functions associated with the Windows platform (internet access, email, word processing, PowerPoint). For a sense of the layout of the central and right-hand screens, see Figure 9.

### **The far left screen**

This screen is ostensibly dedicated to Oculus, a three-dimensional topographic visualisation tool that allows a user to fully tilt and rotate an image of a specified area (often at quite high levels of resolution). This is useful for determining whether, for example, tanks will be able to navigate berms, such as those that are common along the edge of the canals that run through Baghdad, or angles of potential sniper fire. However, Oculus is very processor-intensive and slows other programmes when running, such that 1<sup>st</sup> Cavalry users (with the exception of the Aviation Brigade – 4<sup>th</sup> Brigade) were reluctant to use it, leaving the left-hand screen free for usual work functions (email, PowerPoint, and so on). (Oculus is not shown in Figure 9.)

### **The central screen**

This is where the visualisation enabling the immediate command and control of a TOC's area of operations takes place. The screen consists of a two-dimensional map (with clickable zoom down to a detailed level of satellite imagery of the area, rather like Google Earth), which is usually focused on the user's Area of Operations (AO). The satellite imagery forming the basis of this map is updated three to four times a month. Located on this map are icons known as PLIs (Position Location Identifiers), which mark the known location of blue forces and known/suspected red force locations, either from a direct feed from BFT/FBCB2 through ABCS, or as inputted manually by the user. The legend for these icons is given in a side window that shows the PLI count, as well as information about each unit represented through an icon.



#### Personal Work Area [central screen area]

Each user's personal work area contains a shared pasteboard. The main element of the pasteboard is the user's map. A SALUTE or Situation Reports that get sent to the user appear automatically on his map. Users can add assertion icons, drawings, stickies and task icons to the map. A user's pasteboard can also contain other frames and elements that support this view of the battle space.

#### Shared View Area [right-hand screen area]

The shared view area displays the collection of the team's shared pasteboards. Users can quickly cycle through these views by clicking on individual tabs. Team members can collaborate over the shared pasteboards using voice communication in combination with ink and flashlight gestures.

FIGURE 9. CPOF middle and right-hand screens. (Reproduced with captions from MAYA Viz, Command Post of the Future Project: Full Project Description, (2003), [http://www.maya-viz.com/web/industries/military/industry\\_mil\\_darpa\\_cpoft.html](http://www.maya-viz.com/web/industries/military/industry_mil_darpa_cpoft.html).)

Also on the map are ‘event’ icons, chosen and dropped on the screen by the user from a narrow toolbar to the right-hand side of the map itself. Icons are designed to easily convey their distinct category of meaning (enemy fire, friendly dead, hijacking, and so on). Further, as they are placed there is an opportunity to attach extra information that is accessible through clicking on the icon. Finally, there are two small toolbars containing drawing tools – basic shapes, lines, colours, an area highlighter and so on – that allow the user to configure areas for display, either for short periods of time or permanently. These are particularly used when planning, or when in conference with other users watching your map on their screens.

In addition to strictly topographic depictions of the AO, users can choose from overlays that indicate social and cultural aspects of the city, such as ethnic population densities, mosque locations, or even density of incidents (some of these overlays may be available through the ABCS, while others have to be created by a user – often a time-consuming and laborious process).

It is usual to create more than one map, emphasising different scales, features, or areas, and to flick between them using tabs akin to those available on some internet browsing software. These are visible in green on the screen displayed above.

Finally, on the middle screen, there is a separate, non-geographic piece of software that is bundled together with the Geographic Information Systems (GIS) to enhance CPOF’s effectiveness (this is not shown in Figure 9). This is the Ventrilo VO/IP (voice over internet protocol) software, that operates as a hybrid between a radio and an instant message chat room. Here, each user is attached to the computer via a headset akin to hands-free devices used by mobile phone users, and using Ventrilo they can speak to other CPOF users. Depending on your rank and the location from which you are working, you have access to particular chat rooms (which

look just like instant message chat rooms – a list of names under a heading, each of whom can hear everything you say). The small Ventrilo window lists chat rooms available, shows who is present in a chat room at any given time, and provides a couple of spare chat rooms for private or extraneous conversation. Users with sufficient privileges can also exclude other users from chat rooms. In some cases, the clarity of the VO/IP format meant that Ventrilo replaced other forms of audio communication between TOCs altogether.

### **The right-hand screen**

This is the shared view area, where collaborative planning and the dissemination of commander's intent take place (see the right-hand side of Figure 9). This area has tabs for each of the maps being utilised by other CPOF users. CPOF was distributed to enable communication between Division and Brigade level, with some Brigades also having access to sufficient CPOFs to be able to distribute them down to Battalion level (a luxury that would become standard when 3<sup>rd</sup> ID replaced 1<sup>st</sup> Cavalry in Baghdad). Hence for 1<sup>st</sup> Cavalry there were, at any given time, at the very least six to nine shared 'pasteboards' from which a viewer might choose, and usually more.

Users of pasteboards, depending on their privileges, can alter and update other people's screens with their own information. For example, this happens if a TOC wishes to resolve conflicting information regarding their Area of Operations (AO). Privileges are granted by the creator of the pasteboard, often after a request from the other party via Ventrilo. Alternatively, a user (with or without privileges) can 'clone' a window into their central screen and alter it for their own use, creating a new pasteboard.

It is this ability to share information that is coordinated in both content and (re)presentation that allows a key feature of CPOF: the vastly increased ease of

(digital) communication between the command levels of the Division. For example, each day for 1<sup>st</sup> Cavalry in Baghdad began with a briefing by the Commanding General, the Commander's Update Briefing, in which the commanders of each of the Brigades would conference with General Chiarelli. Such briefings were hosted by the Division HQ on a CPOF screen, with Brigade level commanders monitoring the Division's presentation via CPOF. Previously, such meetings would have required physical travel across hostile territory, wasting commanders' valuable time and/or scarce airlift resources.

At a lower level, the ability to act as a central repository of information (information about events reported on the radio, via email, even information gleaned from the ubiquitous CNN) saw CPOF act as an interface for much of the flow of information up the chain of command. It also acted as a valuable tool for horizontal information sharing between CPOF users.

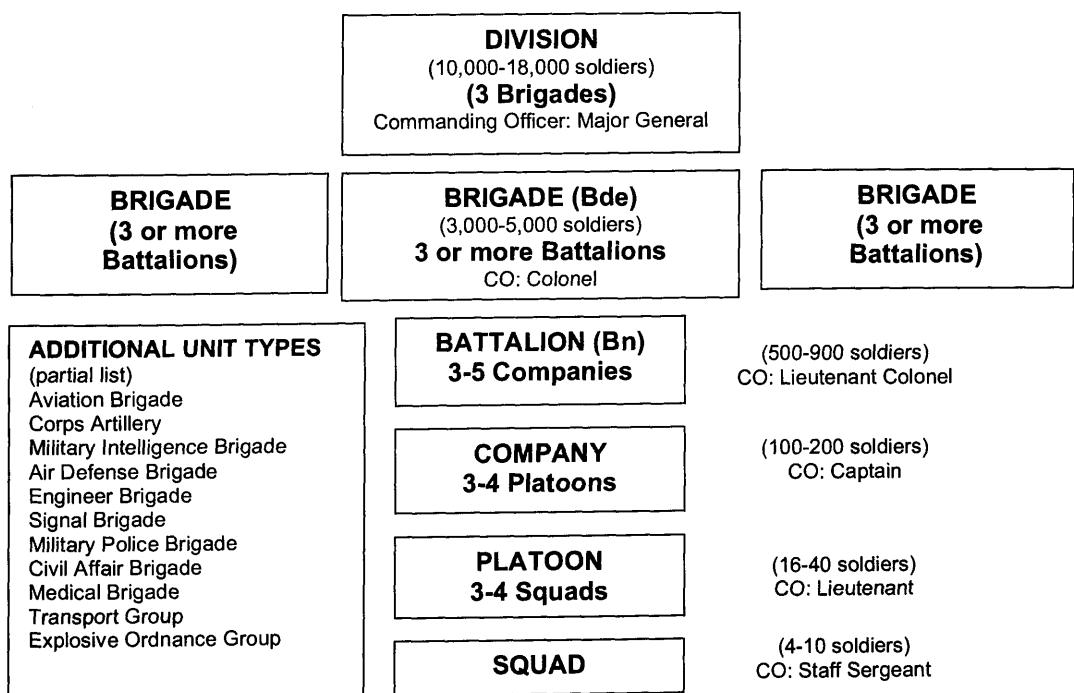


FIGURE 10. US Army organisation chart. [Adapted from US Army, "Operational Unit Diagram," (no date) <http://www.army.mil/organization/unitdiagram.html>.]

## Introducing multiplicity (in theory, in the TOC)

The previous chapter argued that there is multiplicity where the real is understood as emerging from practice. As Annemarie Mol notes, if subjects and objects are viewed as contingent assemblages, or *enactions*, then what it means to exist, (to be) alters.

Somewhere along the way the meaning of the word ‘is’ has changed. Dramatically. This is what the change implies: the new ‘is’ is one that is situated. It doesn’t say what atherosclerosis is by nature, everywhere. It doesn’t say what it is in and of itself, for nothing ever ‘is’ alone. *To be is to be related*. The new talk about what is does not bracket the practicalities involved in enacting reality. ...

The praxiographic ‘is’ is not universal, it is local. It requires a spatial specification. In this ontological genre, a sentence that tells what atherosclerosis is, is to be supplemented with another one that reveals *where* this is the case.<sup>394</sup>

This chapter discusses the praxiographic ‘is’ of the battlespace. As in Mol’s analysis, this praxiographic ‘is’ is multiple: the battlespace is enacted at different sites, according to different organising principles, responding to different textures of the world. This opens many fronts for analysis, and this chapter explores just one. Specifically, this chapter discusses how it is possible for CPOF to enact multiple battlespaces at all.

There are some initial problems associated with viewing the battlespace as multiple. As in Mol’s analysis of atherosclerosis, the battlespace is a hidden phenomenon that can only be accessed indirectly. Only here, this hidden thing is not accessed through blood pressure readings or patients’ complaints about walking, but through pictures of the battlespace garnered through intelligence, surveillance, and

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<sup>394</sup> Annemarie Mol, *The Body Multiple: Ontology in Medical Practice* (Durham: Duke University Press, 2002), 54 (emphasis original).

reconnaissance (ISR), or through situation reports (SITREPs) from troops on the ground. When the subject of analysis is hidden, there is a temptation to analyse the various enactments of the battlespace as though they were simply different representations of a single 'real' battlespace, as though there were an underlying reality to which alternative representations do a lesser or greater degree of justice. In the case of atherosclerosis, this underlying reality is often argued to be thickened walls of arteries, which cause pain on walking. Yet, as Mol shows so effectively, thickened arteries are not what organises the clinical structure of the treatment of atherosclerosis – such arteries are not screened for in the manner of mass screenings for cervical cancer; rather, it is pain-on-walking that forms a condition of possibility for the enactment of atherosclerosis in the clinical setting.<sup>395</sup> To think of thickened arteries as the underlying reality of atherosclerosis is to ignore the way in which multiple enactments of atherosclerosis (including, but not limited to thickened arteries *as enacted in the pathology lab* – but nowhere else, except textbooks) play roles in disrupting and re-casting the ordering of the 'real' of atherosclerosis.

Similarly, the battlespace is not the underlying reality of friendly soldiers making contact with enemy soldiers. Such a battlespace exists, certainly, but it is distinguishable from other enactments that have discrete, and often contradictory, impacts on the 'real' of the battlespace. For example, 1<sup>st</sup> Cavalry's focus on pursuing multiple "lines of operation" (LOOs) enacts a variety of battlespaces relating to different organising principles (economic, institutional, infrastructural).<sup>396</sup> These battlespaces have varying scales of operation, different targets of intervention, and even different criteria for their successful navigation. Acknowledging the multiple nature of battlespaces is particularly relevant given the expanded definition of

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<sup>395</sup> Mol, *The Body Multiple*, 46-48.

<sup>396</sup> Maj. Gen. Peter W. Chiarelli and Maj. Patrick R. Michaelis, "Winning the Peace: The Requirement for Full Spectrum Operations," *Military Review* July-August (2005): 7.

‘battlespace’ discussed above, which can be seen as part of the US military’s attempt to articulate and therefore control a real operating in more registers than previously imagined. This thesis, then, does not view ‘boots on the ground’ as the authentic perspective of war. Although it is true that soldiers at the lowest levels often have a more highly textured understanding of the battlespace in terms of ‘civilian’ geographies (for example, they are more likely to be aware of the impact of US patrol tactics on the everyday driving practices of people living in Baghdad), it is also true that they ‘miss’ a lot of the textures that inflect the battlespace. These textures are (to paraphrase Mol) the battlespace multiple.

As Mol points out, however, “blow up a few details of any site and immediately it turns into many.”<sup>397</sup> To treat each enactment of the battlespace as singular is itself a simplification.

The atherosclerosis enacted in the outpatient clinic contrasts with the thick vessel wall that can be observed through a microscope. But the outpatient clinic is no natural unity. It forms a unity in *contrast* to pathology. When it is approached a little more closely, the clinic appears to be full of contrasts that, in their turn, may be singled out for further investigation. The clinic is not a single site.<sup>398</sup>

The rest of this thesis explores the enactment of the battlespace through CPOF, treating CPOF as *both* a unified site for the enactment of the battlespace in contrast to alternative enactments of the battlespace at different sites *and* as a site in which multiple enactments of the battlespace are brought into messy correlation. Both of these aspects help illustrate the ways in which the US military has become implicated in the production of, and coordination of, an uncertain real.

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<sup>397</sup> Mol, *The Body Multiple*, 51.

<sup>398</sup> Mol, *The Body Multiple*, 50-51 (emphasis original).

It is, however, the role of CPOF in correlating multiple battlespaces that forms the emphasis of this chapter and the next. Specifically, the rest of this chapter explores the complicated relation of multiplicity and singularity in CPOF. In so doing, it illustrates the way in which 1<sup>st</sup> Cavalry operationalised the idea of a messy real in its engagement in Baghdad, and, as a result, possibilised new and creative spatial practices of violence.

### **Using CPOF (2): the human dimension**

CPOF was deployed to Baghdad almost brand new with 1<sup>st</sup> Cavalry, which had very little time to establish routine protocols regarding its use. The use of the system evolved instead through the practical constraints of what could be achieved with limited personnel, along with imitation and adaptation of the 'best practices' of other users. Thus, by the end of the Cavalry's deployment there was a certain regularity involved in its use, albeit of an ad hoc and malleable kind. The following is a description of the generic set-up of CPOF's use, although it is important to remember that this generic operation was neither homogenous through the Division nor carried over to 3<sup>rd</sup> Infantry Division, which followed 1<sup>st</sup> Cavalry Division in Baghdad.<sup>399</sup>

On arrival in Baghdad, commanders were faced with a decision regarding who would use the system. This decision was significant in establishing not only *how* the system would be used but also the priority its enaction of the battlespace would be given within the Tactical Operations Centre (TOC). For example, a number of interviewees mentioned that the 5<sup>th</sup> Brigade did not have an officer working the system, an indication that the system was a low priority in the operation of the TOC. That was, however, unusual as the Commanding General had made it clear that he

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<sup>399</sup> It is for this reason that almost all descriptions of CPOF, following, are phrased in the past tense. It acts as a reminder of the specificity (historicity) of their application.

expected the system to be used to its fullest extent. In the words of one interviewee, "If it wasn't on CPOF then General Chiarelli wasn't interested."

As a computer interface with fully functional Windows facilities, CPOF tended to end up as a workstation in its own right, 'owned' by particular users in the TOC. There were usually two users of the CPOF: a 'battle captain' (usually a captain, but sometimes a first lieutenant) and a supporting non-commissioned officer (NCO). The battle captain is a specialised position in command staffs that is held by a junior captain (usually with no experience of direct command of a company) who is responsible for tracking and monitoring all information coming into and emerging from the TOC.<sup>400</sup> This includes monitoring compliance with orders, paying attention to the progress of action toward plans, and making sure that all units under the TOC's direction are given consistent information. The battle captain is not an active decision-maker, but acts as a centralised information point for the commanding officer and his chief of staff.<sup>401</sup> Information is reported to the battle captain vertically from units below and command levels above via radio, telephone, and sometimes email, and horizontally from specialised areas within the TOC such as intelligence or fire support, as well as from remote sensing apparatuses and TV news images. As a result of the significance of this position in coordinating information (the bread and butter of the TOC), the battle captain, the supporting NCO, and the CPOF were usually situated centrally within the TOC, often directly behind the commanding officer (see Figure 11).

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<sup>400</sup> For a detailed description of the role of the battle captain, and the problems with its contemporary use in the US Army, see, Capt. Marcus Oliviera, "What Now, Battle Captain? The Who, What and How of the Job on Nobody's Books, But Found in Every Unit's TOC," *Combat Training Center Quarterly Bulletin* 2nd Qtr (1995),

[http://www.globalsecurity.org/military/library/report/call/call\\_2qfy95\\_ctechap1.htm](http://www.globalsecurity.org/military/library/report/call/call_2qfy95_ctechap1.htm).

<sup>401</sup> All interviewees at 1<sup>st</sup> Cavalry were men (as were all relevant commanders in the Division), and thus the male pronoun will be used throughout this thesis.

Usually, CPOF ended up being the primary focus of the battle captain's day-to-day existence. This is not to say that CPOF usage replaced the previous functions of his position in the TOC, rather that CPOF dovetailed easily into his existing workload. Users generally were physically situated at or next to the CPOF, and utilised CPOF's tools in addition to or to carry out their usual workload. Sometimes CPOF functionality reduced other types of work – for example, it was commonly noted that radio traffic between the Brigade and Divisional level was reduced as a result of the Ventrilo software (it being a clearer audio signal and a more intuitive format). This doubling up of functionality (email was also accessed through the CPOF screen) ensured that CPOF was generally well attended in the TOC.

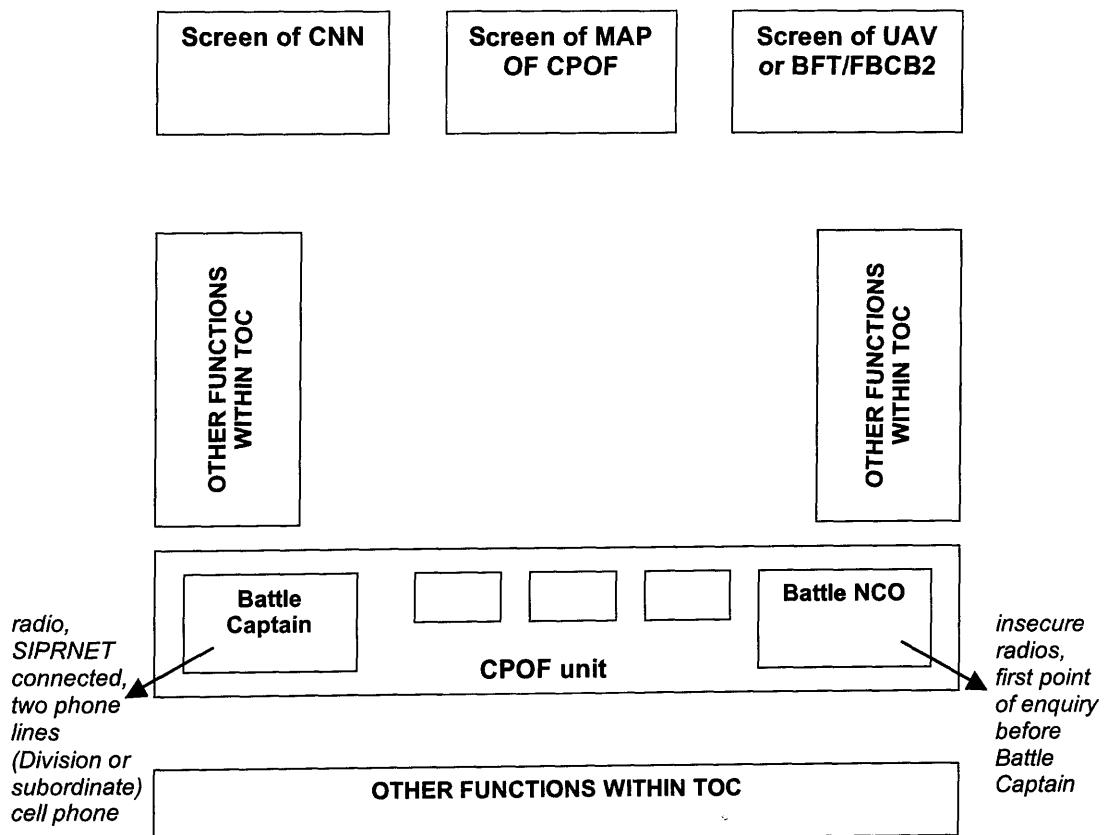


FIGURE 11. Diagram of positioning of CPOF and battle captain within TOC of 1<sup>st</sup> Bde, 1<sup>st</sup> CD, showing communication lines into and some functions of battle captain and assisting NCO. (Diagram by author).

Additionally, the main screen of CPOF acted as a focal point for the TOC more generally. Generally, large screens at the front of the TOC displayed three things: CNN on the first; the CPOF screen being used by the battle captain on a second; and possibly a direct feed from either an unmanned aerial vehicle (UAV) or from BFT/FBCB2 (see Figure 8) on the third.

The battle captain's stated purpose is to compile a picture of the battlespace to present to the commanding officer while excluding matters that are too insignificant to demand high-level command attention. However, the picture presented on CPOF was far from the unified picture implied by this description. It was, in fact, a nuanced and complex series of different versions of the battlespace. The multiple versions of the battlespace presented in the CPOF came from two sources: the incorporation of other users' constantly changing CPOF maps, and the multiple maps from which a single user operated at any given time. In fact, the only time when the CPOF came close to presenting a unified picture was twice a day at Commander's Update Briefings, when all users were focused on a single map at a time (although even during this, users confessed to flicking through other maps to keep track of force movements and the like, while simultaneously watching the posting on the collaborative screen).

These multiple maps enabled a diverse range of spatialising practices to be presented to the TOC. For example, a user might have a map devoted to charting the sewerage system reconstruction of a particular area, while another might detail the information collection facilities being used to monitor the battlespace (locations of hidden and visible cameras, for example), while still another might chart IED

placements along major routes over a period of time.<sup>402</sup> Given General Chiarelli's campaign plan that called for the simultaneous pursuit of the five lines of operation mentioned previously (combat operations, training security forces, providing essential services, promoting indigenous governance, encouraging economic pluralism), multiple use was not only possible but necessary.<sup>403</sup> The battle captain, then, had a function that was not really to compile a single picture of the battlespace on CPOF, but to compile many such pictures, and present them as appropriate to the commanding officer. (See Figures 12 and 13, below, for a sense of the kind of multiple trackings made possible by the system.)

The rest of this chapter explores whether this multiplicity is, in fact, ontological multiplicity and, if so, the implications that flow from this. Multiplicity, to recap, is not to be confused with a multiplicity of 'perspectives on' an external reality. Rather, as suggested by John Law, instead of thinking about how multiple perspectives emerge from a single 'real,' it might be useful to think of how these different versions are implicated in the enactment of a supposedly singular object. Thus in relation to divergent accounts of a single defence procurement decision, Law argues:

There is also the alternative multiple possibility, the proposal made by Mol. This is that the different participants were making *different* decisions, and that they simply thought they were making a single decision. Then, somehow or other, they co-ordinated themselves. Imagined

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<sup>402</sup> The author has seen screen shots from CPOF for each of these examples from 1<sup>st</sup> Cavalry's deployment in Baghdad.

<sup>403</sup> In describing his campaign plan, Chiarelli notes:

What became clear to the task force during mission analysis and mission preparation was that to achieve the operational goal the task force had to simultaneously work along all five equally balanced, interconnected lines of operations. What also became clear was that the traditional phased approach, grounded in U.S. doctrine, might not be the answer; rather, an event-driven "transitional" approach might be more appropriate based on a robust set of metrics and analysis.

themselves to be making the same decision. Displaced the possible difference, kept them apart. Perhaps we might call this 'virtual singularity.'<sup>404</sup>

## Ontological singularity and multiplicity in CPOF

This section contrasts the seemingly singular informational basis of the system with its messy and multiple enactment in practice.<sup>405</sup> It establishes that 1<sup>st</sup> Cavalry's intervention in Baghdad was premised on an engagement of its many faces.

### Liquid Information and ontological singularity

CPOF's functioning is premised on the notion of Liquid Information. To repeat from above:

Liquid Information allows the data itself to be separate from the viewing space. This enables the commander to put that data into a number of different displays. In this way, the data becomes modular in that it can be moved and viewed in a number of different ways, depending on the display chosen.<sup>406</sup>

This assumption of the essential fungibility of informational inputs and informational displays is related to the phenomenon of informationalisation.<sup>407</sup> In particular, the CPOF system relies on 'liquefied' information – information unmoored from its point of origin and insertion in the data stream which flows rapidly and easily, avoiding the friction attendant to alternative knowledge systems that require the *context* of information to accompany its *content*.<sup>408</sup> This liquefaction is achieved through the

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<sup>404</sup> John Law, *After Method: Mess in Social Science Research* (London: Routledge, 2004), 58 (emphasis original).

<sup>405</sup> Here, multiplicity refers to the possibility of enacting different (not necessarily compatible or coherent) textures of the battlespace.

<sup>406</sup> Defense Advanced Research Projects Agency (DARPA), "Command Post of the Future."

<sup>407</sup> 'Fungible' is defined as: "of such a nature that one unit or portion may be replaced by another in respect of function, office, or use." *The Macquarie Dictionary*, 3<sup>rd</sup> ed., s.v. "fungible."

<sup>408</sup> See, Hayles, *How We Became Posthuman*, Chapter Two.

ability of digitised information to form seemingly endless combinatory organisations for different effects. In the context of CPOF, some of these recombinations even result from the operation of the system itself rather than the conscious intervention of its human operators (the shifting location of PLIs tracking BFT/FBCB2, for example).

The ideal operation of CPOF vis-a-vis Liquid Information echoes some of the trends critical security theorists identify in the evolution of the contemporary security problematic. Dillon and Reid argue, for example, that the conflation of the two great information revolutions of the past few decades – the digitisation of information technologies, and the molecularisation of the life sciences – has led to the incorporation of a discourse of complexity into the contemporary Western security problematic. In particular they identify global liberal governance's mobilisation of a:

... biophilosophical discourse of complexity [and] 'recombinant biopolitics'. Here, the power of recombination is said to be the means by which life, conceived to be comprised of open complex adaptive systems, exploits connectivity to evolve recombinant forms of organisation capable of meeting the changing demands of rugged fitness landscapes.<sup>409</sup>

Security, in this discourse, becomes about the re-engineering and recombination of complex systems to increase their resilience to crisis.<sup>410</sup> Informationalisation – the treating of all things as discrete bytes of (digital, molecular) information – is essential to such a perspective because, by removing qualitative, theological, or other aspects of something's existence, life can be understood solely as a complex adaptive system capable of (re)engineering itself (and being re-engineered) as it moves through the capillaries of global liberal governance, rather than something that requires moral or other forms of intervention. Without taking a firm position in relation to this

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<sup>409</sup> Michael Dillon and Julian Reid, "Global Liberal Governance: Biopolitics, Security and War," *Millennium: Journal of International Studies* 30, no. 1 (2001): 44.

<sup>410</sup> See, also, Michael Dillon, "Global Security in the 21st Century: Circulation, Complexity and Contingency," in *International Security Programme/New Security Challenges Programme Briefing Paper 05/02*, 2-3 (London: Chatham House, 2005).

argument, which has since been elaborated and adapted by both Dillon and Reid, it is possible to see how CPOF, and NCW more generally, attempt at least discursively to draw on such an ontology of life (think of Cebrowski and Gartska's description of "the shift from viewing actors as independent to viewing them as part of a continuously adapting ecosystem").<sup>411</sup> Liquid Information operates with ontological singularity by enacting a world in which all things are made of essentially the same 'stuff' – (digital) information. An atomism for the 21<sup>st</sup> century, Liquid Information relies on the assumption that things-as-information are fungible and recombinatory – capable of re-engineering according to predictable (if enormously complex) scientific laws.

At a more concrete level, even if Liquid Information is not the dominant ontology throughout the US military (or the 1<sup>st</sup> Cavalry), it could be argued that within CPOF the Liquid Information model leaves no room for enactments of the battlespace (no room for configurations of power/knowledge/space) outside of this version of reality. For things to be displayed on the system they must be capable of being inputted as information, and in particular, they must be capable of representation via the tools available in the system – mostly icons, lines, shading, and photos. According to this argument, the essential fungibility of information in the system is enhanced by the common base of representation (the underlying maps onto which information is projected). Together, these factors arguably ensure that multiple maps on CPOF do not represent multiple reals, multiple 'textures' of the real, or any kind of ontological multiplicity. Rather, different maps on CPOF are simple permutations of the same underlying reality, an underlying reality of bits and bytes flowing deeply and quickly within the server network.

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<sup>411</sup> Arthur K. Cebrowski and John J. Gartska, "Network-Centric Warfare: Its Origin and Future," *Proceedings of the U.S. Naval Institute* January (1998), <http://www.usni.org/Proceedings/Articles98/PROCebrowski.htm>.

This chapter argues however that, in practice, this was far from how CPOF operated. Addressing both the supposedly singular geographic base ‘underlying’ the system and the essential fungibility of information, this chapter argues that multiple maps of CPOF are (at least capable of) enacting multiple battlespaces. In fact, this chapter goes further and argues that one of CPOF’s greatest strengths for 1<sup>st</sup> Cavalry was precisely that it did *not* collapse multiplicity into singularity, enabling the city to be engaged on an increasing number of ‘levels.’ However, the system operated in constant tension between the pull to singularity and the dispersion of multiplicity. This theme recurs throughout this thesis, and reflects a point of difficulty for US military engagement with an alternative real.

#### The geographic base of CPOF

CPOF receives information from both the ABCS and from users layering different kinds of information (often PLIs, but also event icons and ‘drawings’ that indicate lines of operation, points of effort, and more) over a base that serves as a common reference point for all users. Here some limits of multiplicity in CPOF are clear: for battlespaces to be included they must be capable of being represented as icons, lines, shading, or pictures on or attached to this base. The base is the geographic representation (satellite imagery and topographic renderings) of the Area of Operations, which can be as small as just a few streets wide, or as large as the entire CENTCOM region (which at the time encompassed 25 states from the Horn of Africa, through the Arabian Gulf region, and into Central Asia). The ability to alter the scale at which it is used renders this base mobile. However, CPOF users tended to assume a continuity between the base picture they used and the base picture underlying other CPOF maps, in the same way, perhaps, that doctors assume that there is a common (underlying) thickening of artery walls when enacting the multiple faces of atherosclerosis. This narrative singularity founded the possibility for an ‘actual’ multiplicity that did not then threaten the fundamentally singular approach to the

world within which the US Army operated. For example, while commanders are uncomfortable operating from a different set of maps to their subordinates (this increases the possibility of conflicting information and misunderstood communications, not to mention ‘fratricide’), in CPOF the assumed singularity of the map at the base erased concerns regarding the multiple maps used.

While this base theoretically establishes a form of singularity through which multiplicity can be erased, in practice this base was not reliably singular. CPOF users might have assumed they were working from the same backdrop as other users, but in reality this was not necessarily true. To take a simple example, this base depends on the scale at which it is viewed. Further, it contains in itself layers of features (topographic detail, planning features, satellite imagery) which can be clicked on or off at will, in a manner reminiscent of the commercial technology Google Earth. Then there are the more complicated ways in which the base was not singular. For example, interviewees often commented that the satellite imagery underlying CPOF was updated once every three or four months, a standard length of time adopted by data collection agencies because it is usually sufficient to capture the changing geographies of a city in detail. However, the continual destruction and creation of Baghdad’s landscape during OIF II meant that, in this case, users could not (and did not) necessarily trust the satellite imagery presented at the base of the CPOF. Instead they supplemented their use of CPOF with localised knowledge of the existence or otherwise of buildings, infrastructure, and so on – knowledge that could be present in one TOC but not another. It was as much the belief in the singularity of the underlying base as the singular performance of the base itself that made possible the distribution of a (circumscribed) multiplicity of battlespaces within CPOF. In fact, in the practice of CPOF, rather than layers founding ontological *unity* (an underlying base layered with multiple superstructures), layering actually correlated (and thus allowed the exploitation of) ontological *multiplicity*.

## The viscosity of Liquid Information

Nevertheless, even if the geographic base of the system is acknowledged to be multiple, it might be argued that the essentially liquid nature of the information feeding the CPOF (its essential fungibility) ensures that the system responds to singular ordering principles. In this argument singularity is created by the strict limits imposed on the conditions of existence of things (that is, as information) within the system. This section argues, however, that there are a number of ways in which multiplicity was enabled *within* these boundaries of the CPOF system.

### **The tools of CPOF: fungible or context dependent?**

One way of demonstrating that the different maps of CPOF responded to multiple spatial orderings, multiple rhythms, or were implicated in diverse assemblages, is to explore the supposed fungibility of the tools used to input information onto the system. In the theory of Liquid Information, these tools are assumed to produce essentially fungible inputs (in this ontology information is determined by content and not context). In practice different tools represented the same information in ways that enacted quite different textures of the battlespace, and, in a related way, different tools represented quite different modes of operating within the battlespace.

For example, CPOF commonly contained digital photographs emailed through by troops on the ground, who were either issued with a digital camera by their unit or (just as commonly) carried their own. These photos were then attached to SITREPs on a CPOF map to illustrate a particular incident or battlespace feature. When questioned about the phenomenal rate of use of this feature by 1<sup>st</sup> Cavalry, interviewees expressed the view that pictures provided 'intangibles' to the map which could not be incorporated within the simpler (and more user-determined)

information inputs of icon, texts, and drawing tools. As a reflection of the regard with which this function was held, by far the most common complaint about the system was the inability to attach digital video in a similar fashion.<sup>412</sup>

Sometimes the choice of tool profoundly impacted a map's use, even if the information content carried was technically identical to information represented on another tool. For example, 1<sup>st</sup> Cavalry users derided 3<sup>rd</sup> Infantry Division's use of PowerPoint. Third Infantry Division were reputed to attach PowerPoint slides to maps to represent information that might have been directly inputted onto the system, albeit with more difficulty. For example, a user might directly create a demographic overlay on CPOF using drawing tools, or they might do one in the more familiar PowerPoint programme and then attach it to a map of the same AO. To the extent that this happened in 1<sup>st</sup> Cavalry (this practice was minimised by General Chiarelli's renowned dislike of PowerPoint), other users would treat these maps as a low priority, failing to look at and engage with them in a timely manner. This reduced the offending map's 'reach' beyond the TOC in which it was created. Whereas photos gave rather more to the system in terms of additional textures of the battlespace, PowerPoint gave rather less. Multiple maps demonstrated the high viscosity of Liquid Information, despite claims to the contrary. In CPOF, information would 'stick' to its representative tool.

#### **The mode of information display: alternate grids of power/knowledge/space**

Further, different tools, or using tools in different ways, could be strongly associated with different modes of behaviour in the battlespace. To put it more precisely, different tools were implicated in different arrangements of

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<sup>412</sup> The widespread use of digital video by US troops in Iraq has attracted much attention in the academic and general community. Such videos, often produced for tactical purposes within a unit, can be re-cut and re-cast over soundtracks of rock or metal music to form 'trophy videos,' or 'war porn.' See, for example, <http://www.militaryvideos.net>.

power/knowledge/space. For example, the use of drawing tools to represent statistical patterns (such as the placement of IEDs over a period of time, see Figure 12) represents a different configuration of power/knowledge/space to a map illustrating incident reports in real time.

Recall for a moment Foucault's description of order as "the grid created by the glance, an examination, a language."<sup>413</sup> This grid varies from war to war, and, according to the argument presented in this chapter, within the practice of each war as well. In CPOF, the tools used to make sense of the diverse range of information create their own 'grid' – their own relations between subjects and objects – and hence their own power/knowledge/space.

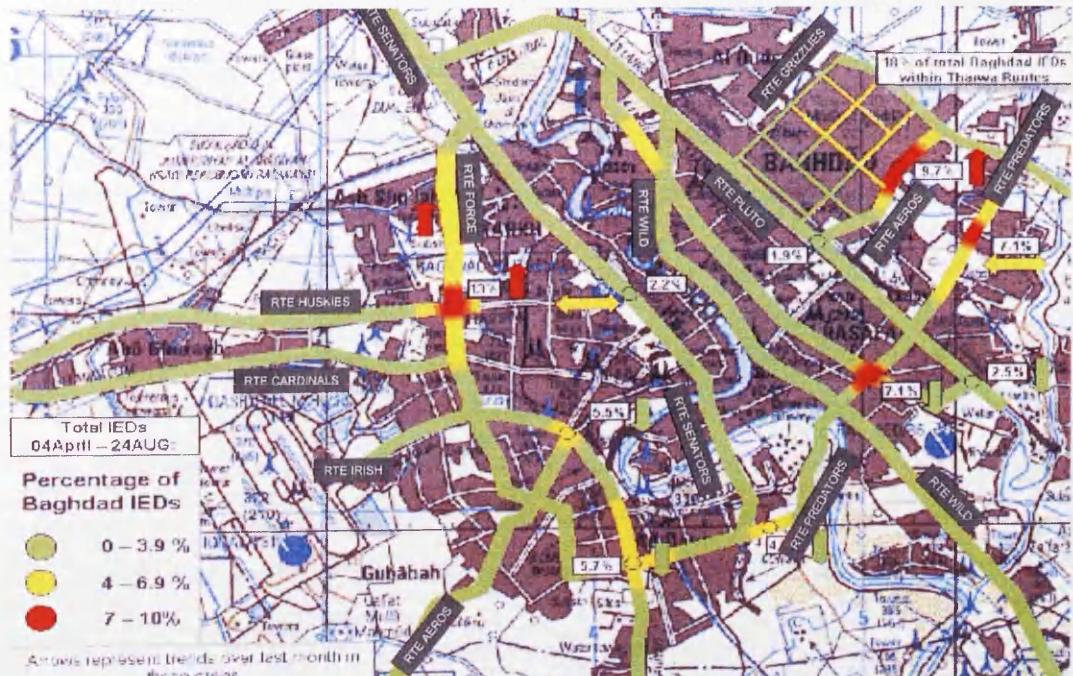


FIGURE 12. Diagram illustrating Improvised Explosive Device placements along major routes in Baghdad, 4<sup>th</sup> April – 24<sup>th</sup> August 2004. (Compiled by 1<sup>st</sup> Cavalry Division. Figure in author's possession.)

<sup>413</sup> Michel Foucault, *The Order of Things* (London: Routledge Classics, 2002), xxi.

Van Creveld examines the use of statistics by the US during the Vietnam War, arguing that statistical orderings of the battlespace were a factor in distorting US military behaviour in that conflict. US reliance on statistics during that war was taken to the rather bizarre extent that, in the face of the torrent of information produced by all levels of the military, the upper echelons of command began to count messages rather than reading them.<sup>414</sup> Here, statistics were not a *grid* that classified and separated, but a *graph* that conglomerated things, reducing qualitative difference to quantitative calculation.

In one sense, the US military's reliance on statistics in Vietnam was a rational response to the nature of the conflict. Unlike recent wars in US history, territorial control – or “arrows or colored patches on a map” – gave little indication of the success of the political battle for ‘hearts and minds.’<sup>415</sup> Statistics allowed a view of these aspects of the battlespace which did not correlate neatly with direct territorial control. However, they also enforced a quantified notion of otherwise qualitative (spatial) relations, where a political result was deemed to be achieved through meeting numerical targets. It is worth quoting van Creveld at length on this issue:

Progress toward either [garnering the allegiance of a people or the building of a nation] being difficult to determine, indirect means had to be substituted: the percentage of the population in ‘pacified’ areas as measured by the Hamlet Evaluation System (HES), the economic activity as measured in tons of rice brought to the urban markets. The enemy situation in its turn was measured by the number of incidents and the body count, and the performance of friendly troops was put in terms of kill ratios. ...

Statistics, even when accurate, can never substitute for in-depth knowledge of an environment, a knowledge that the Americans in Vietnam were almost entirely without. The lack of it tends to convert genuine political and military problems into bogus technical ones. Though the reams of figures in a computer printout may appear impressively comprehensive and accurate, their

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<sup>414</sup> Martin van Creveld, *Command in War* (Cambridge, MA: Harvard University Press, 1985), 254.

<sup>415</sup> Creveld, *Command in War*, 253.

meaning is often ambiguous: for example, a drop in the incident rate may signify (among several other things) either that the enemy is being defeated or that friendly forces are less than successful in locating him and bringing him to battle.<sup>416</sup>

Civilian geographies suffered particularly under this kind of quantification. For example, the binary distinctions required by statistics led to a strict dichotomy between friendly and enemy villages, such that “entire districts were flattened so that they could be saved.”<sup>417</sup>

Similarly, 1<sup>st</sup> Cavalry’s use of different command tools in CPOF created different ‘grids’ (different spatial orderings, different power/knowledge/space) by which the battlespace was (re)ordered. For example, Figure 12 (which relies on statistical conglomeration and the use of drawing tools) implicated the Divisional Headquarters (the site from which this map emerged) in a power/knowledge/space that rendered some routes through the city safe, and others (notably those in Sadr City – named Tharwa on this map) unsafe. In so doing, this kind of map enacted a battlespace that was about ‘safe passage through’ rather than ‘safety within.’ The spatial ordering of this map can be correlated with the largely unsuccessful IED-countermeasure utilised by the US Army at this time, which consisted of driving at high speeds through areas known for their IED placements (and associated ambushes), a mode of behaviour which tended to create fear and opposition within the civilian population who were (sometimes fatally) harassed off their own roads.<sup>418</sup>

The power/knowledge/space enacted by Figure 12 contrasts the maps that predominated in 4<sup>th</sup> Brigade (Aviation), who rarely engaged in such reflections on the nature of the battlespace over time. Rather, and as a result of their specialised

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<sup>416</sup> Creveld, *Command in War*, 253.

<sup>417</sup> Creveld, *Command in War*, 257.

<sup>418</sup> For a discussion of the tactics and counter-tactics of IED placement in the early days of OIF, see, Thomas E. Ricks, *Fiasco: The American Military Adventure in Iraq* (London: Allen Lane, 2006), 217-21.

function within the Cavalry, 4<sup>th</sup> Brigade used the system primarily as a planning tool, with maps that tended to emphasise features useful to air support (vertical elevations, size of clearances that might be used as landing spots, and so on). This was a rigidly ‘forward-looking’ use of CPOF, with little space for the past or the immediate present.<sup>419</sup> Both of these, meanwhile, can be contrasted with maps focused on the immediate present and the placement of incident reports in real time.

Despite the common format of things-as-information inside the CPOF system, then, there was still room for the emergence of multiple textures of the battlespace through the multiple maps of CPOF. This partly resulted from the viscosity of the flow of Liquid Information: liquefied information ‘stuck to the context of its representation (the CPOF tool) more firmly than implied in the informational model. It also resulted from the different *kinds* of things that are done with different tools. Thus, using Foucault’s notion of spatial orderings at the micro as well as macro level, this section has argued that a single stream of Liquid Information can be implicated in multiple configurations of power/knowledge/space. This is not to say that the ‘entire’ multiplicity of the battlespace can be encompassed within CPOF and its stream of Liquid Information. Far from it: much of CPOF’s function is still to exclude those alternate textures of the battlespace presenting themselves to the TOC (itself no mean feat – many such textures, particularly civilian aspects, do not go far through the precarious communications infrastructure of the US Army), but which would not fit within the instrumentalising agenda of the command process.

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<sup>419</sup> However, interviewees from 4<sup>th</sup> Brigade did note that their use of the system adapted throughout the year to include a more active ‘monitoring’ role of troops on the ground in order to more flexibly anticipate and respond to calls for assistance.

## CHAPTER FOUR

# Addressing multiplicity in the event-ful city

One way of addressing CPOF from here would be to look at the different *kinds* of battlespaces enacted by 1<sup>st</sup> Cavalry while using the system, and then, drawing on Mol's notion of ontological politics, to formulate arguments favouring the enactment of particular kinds of battlespace over other, more harmful, enactments of the battlespace. This is an important task, and one which opens the possibilities for more nuanced interventions in the debate about US military behaviour in Iraq than those that have dominated critical studies to date. However, the rest of this chapter adopts a different approach, addressing that which is most novel about CPOF – the greater scope it allows for the coexistence of alternative enactments within the TOC. Law suggests that "the insistence on singularity is productive," allowing things to be done *generally* even if there is no general thing.<sup>420</sup> Perhaps the 1<sup>st</sup> Cavalry's insistence on multiplicity was equally productive, allowing things to be done at a level or in a way not previously possible. Here we begin to see the ways in which violence in Iraq configured itself in altering and novel ways, as a constant and deadly experiment. The

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<sup>420</sup> John Law, *After Method: Mess in Social Science Research* (London: Routledge, 2004), 66.

following section addresses the usual role military command plays in controlling multiplicity, alongside the novel demands placed on command in the context of Iraq. The rest of the chapter then asks how CPOF enabled 1<sup>st</sup> Cavalry to utilise the multiplicity of the battlespace without diffusing its efforts so much that they no longer responded to a recognisable military imperative at all.

### **The role of command in addressing multiplicity**

Command and control, particularly as exercised in the upper echelons of the military, has always played a significant role in dealing with the multiplicity of the battlespace. This results from the nature of the function of command. As described by military historian Martin van Creveld:

The exercise of command in fact involves a great many things, not all of which can be clearly separated from each other. There is, in the first place, the gathering of information on the state of one's own forces – a problem that should not be underestimated – as well as on the enemy and on such external factors as the weather and the terrain. The information having been gathered, means must be found to store, retrieve, filter, classify, distribute, and display it. On the basis of the information thus processed, an estimate of the situation must be formed. Objectives must be laid down and alternative methods for attaining them worked out. A decision must be made. Detailed planning must be got under way. Orders must be drafted and transmitted, their arrival and proper understanding by the recipients verified. Execution must be monitored by means of a feedback system, at which point the system repeats itself.<sup>421</sup>

This description emphasises command's role as a system 'fed' by information, and, indirectly at least, illustrates the way in which command must coordinate (or at least, control) the multiplicity of the battlespace. Even though doctrine, training, established command processes, widely held preconceptions about the enemy, and the nature of information passed by communication devices all act to regularise information coming into the TOC, the varying nature of the inputs of information into

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<sup>421</sup> Martin van Creveld, *Command in War* (Cambridge, MA: Harvard University Press, 1985), 7.

the command system is still substantial: from radio links with troops on the ground to CNN reports, command and control involves addressing a multiplicity of textures of the battlespace. To refer to these textures simply as 'information,' as van Creveld does, is to underestimate the quality, quantity, and diversity of the ways in which the TOC is connected to the battlespace. Nevertheless, van Creveld's description makes it clear that one of the functions of command is to take these multiple enactments of the battlespace and make them simple enough (singular enough) to be capable of purposeful intervention by the military. This simplification (and singularisation) has generally been achieved using a number of mechanisms, particularly processes of ranking and the use of scale. These are explored in the following section using van Creveld's description of US command in Vietnam as a point of reference.

### Gold standards and the distribution of realities

This section discusses one of the primary ways in which hierarchical military structures address multiplicity. That is, this section discusses the exclusion of incompatible realities and their subsequent distribution down the chain of command. For the US in Vietnam, for example, statistics were the gold standard that was capable of effectively subordinating and distributing multiplicity in this way.

Mol describes the use of gold standards in addressing the multiple realities of atherosclerosis in terms of the 'authority' with which particular kind of reals are enacted. For example, in a process with which sociologists of medicine would be familiar, subjective (patient) accounts of the disease are routinely subordinated to the reals produced through clinical and then laboratory practice. As Mol argues:

A hierarchy between subjective ‘complaints’ and objectifying ‘laboratory findings’ is institutionalized in the very routine that says all patients with clinical disease go to the lab before further therapeutic measures are considered.<sup>422</sup>

However, in medicine these rankings are not fixed. As Mol goes on to argue:

And yet it isn’t solid. There are other modes of establishing coherence as well. Sometimes the clinic is on the top of the hierarchy. Pressure measurements are not necessarily ‘believed’ in.<sup>423</sup>

Dealing with multiplicity, then, can also involve the complication of routine rankings. Laboratory practice can be distrusted by some doctors – it does not always ‘win’ in acting as a gold standard of ordering the ‘real’ disease.

In command in Vietnam, statistics were a gold standard that allowed the continual trumping of concerns expressed down the command chain by the dictates laid down further up the command chain. This was particularly significant in a war like Vietnam which was noted for its micro-management of operational and even tactical level engagements by the very highest levels – precisely those levels from which alternate realities were most firmly excluded. The Vietnamese battlespace (the grid according to which the US military operated) was therefore surprisingly singular. The tendency of modern society to accord scientific results with a gold standard quality combined here with the inherent exclusions established in the military system of ranking to compelling, if misguided effect.<sup>424</sup>

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<sup>422</sup> Annemarie Mol, *The Body Multiple: Ontology in Medical Practice* (Durham: Duke University Press, 2002), 63.

<sup>423</sup> Mol, *The Body Multiple*, 63.

<sup>424</sup> In the US military, the Vietnam era is most famous for its Secretary of Defense, Robert McNamara, who attempted to imbue the planning processes of the Pentagon with scientific rigour. See, Michele Chwastiak, "Taming the Untameable: Planning, Programming and Budgeting and the Normalization of War," *Accounting, Organizations and Society* 26 (2001).

Gold standards not only exclude alternate textures, they also have a regulatory effect on other enactments of the battlespace. For example, van Creveld notes that, particularly toward the end of the war, it was common to see troops fighting to increase statistical measures of success (increased body counts, increased firefights, and so on), even if these had little to do with achieving the qualitatively framed mission statements that were intended to guide troop behaviour.<sup>425</sup>

In case this ruthless exclusion of alternate realities from central command posts through the *downwards* dismissal through the military's established hierarchy is thought to be a phenomenon restricted to the US military in Vietnam, it is useful to remember the British experience at the Battle of the Somme. There, troops were expected to (and in many cases, actually did) literally reach and remain at a line drawn on a map at headquarters many miles behind the battlefield, with no regard for the terrain features, number of casualties, or enemy activity being experienced.<sup>426</sup>

### Scaling and issues of complexity

In addition to specific tools that distribute realities using the military's hierarchical structure, the command structure commonly values 'bigger picture' enactments of the battlespace over those focused at a smaller scale. Without addressing too deeply the complexities of scale discussed in Chapter Five, it is useful to note that conventional US military doctrine has unproblematically assumed that the three levels of military operation – tactical, operational, and strategic – act as concentric circles of increasing size (the tactical is smaller than the operational, which is smaller again than the strategic). This assumption is accompanied by a correlated assumption: that the tactical realities add up to the operational realities, which in

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<sup>425</sup> Creveld, *Command in War*, 254-255.

<sup>426</sup> Creveld, *Command in War*, 155-168.

turn add up to the strategic realities. Thus it is that the US military definition of the operational level of warfare is constructed with reference to both the tactical and strategic levels:

These [operational] activities imply a broader dimension of time or space than do tactics; they ensure the logistic and administrative support of tactical forces, and provide the means by which tactical successes are exploited to achieve strategic objectives.<sup>427</sup>

Accompanying these assumptions about the scale of military operations are assumptions about the geography in which the military operates. The layout of a village, for example, would fall within the Area of Operations (AO) of a small unit (perhaps a company), rendering it a tactical geography, whereas the geography of a city is more appropriate for the operational context, and, depending on its size (and level of enemy activity) is likely to form the Area of Operations for a Brigade, a number of Brigades, or perhaps, in the case of Baghdad, an entire Division. In the context of these assumptions, the hierarchical exclusion of multiple realities from superior command structures through the imposition of a singular strategic logic or singular way of viewing the world makes a degree of sense. Alternate textures of the battlespace experienced at the tactical scale (the experience of how civilians 'live' their city, for example) are unimportant at higher echelons of command because they are deemed to be adequately addressed by the tactical level of command, and, importantly, if they are not, then it should quickly become apparent through tactical failures.

Yet the battle in Iraq has rendered issues of scale more complex for the US Army. In particular, there has been what NCW adherents refer to as a 'compression' of the

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<sup>427</sup> Director for Operational Plans and Joint Force Development, *Department of Defense Dictionary of Military and Associated Terms* (Washington, DC: Department of Defense, 2002), 324.

levels of war.<sup>428</sup> In NCW theory, this refers to the ability to utilise the complicated scaling properties of systems exhibiting (properly mathematical) complex behaviour in order to create strategic effects from tactical actions.<sup>429</sup> In practice in Iraq, this refers to the difficulty of aligning tactical and strategic goals. In counterinsurgency operations, tactical goals are usually still presented in terms of familiar military missions (winning firefights, capturing insurgent cells, going on patrol, search and sweep operations, and so on). Strategic goals, on the other hand, are expressed in the political terms of winning the hearts and minds of the population. The mismatch between the two is a result of military command, training, and doctrinal practices too diverse to discuss here (although the practice of general mission statements by strategic level commanders being 'boiled down' into actionable commands for tactical units is important here). What is immediately apparent, however, is that the two do not necessarily add up neatly as foreseen in typical Army conceptions of scaling. A striking consequence in Iraq of this lack of linear scaling properties has been the US military achieving tactical success ('winning the battle ...') with either no benefit for, or explicit cost to, strategic ambitions ('... but losing the war').<sup>430</sup> For example, success in the second Battle of Fallujah was achieved only at enormous cost to both the civilian population and the built environment, leading Jonathan Keiler to argue in the *Proceedings of the U.S. Naval Institute* that: "The Battle of Fallujah was not a defeat

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<sup>428</sup> See, Office of Force Transformation (OFT), *The Implementation of Network-Centric Warfare* (Washington, DC: Office of Secretary of Defense, 2005), 10.

<sup>429</sup> In particular, this is the basis for the principle of Effects-Based Operations. See, Paul K. Davis, *Effects-Based Operations: A Grand Challenge for the Analytical Community* (Santa Monica, CA: RAND, 2001).

<sup>430</sup> See, for example, the scathing assessment of Thomas Ricks on this issue:

It is difficult to overstate what a key misstep this lack of strategic direction was – probably the single most significant miscalculation of the entire effort. *In war, the U.S. military would fight hard and well but blindly ...*

Thomas E. Ricks, *Fiasco: The American Military Adventure in Iraq* (London: Allen Lane, 2006), 129 (emphasis added). See, also, Brig. Nigel R.F. Aylwin-Foster, "Changing the Army for Counterinsurgency Operations," *Military Review* Nov-Dec (2005).

... but we cannot afford many more like it."<sup>431</sup> Traditional command approaches that exclude alternate enactions of the battlespace that take place on a tactical scale, on the assumption that they are adequately captured by simple measures of tactical success, do not seem to apply in Iraq.

Indeed, it was in response to the failure of traditional tactical operations to 'add up' to strategic success that 1<sup>st</sup> Cavalry adopted a campaign plan of the simultaneous pursuit of multiple lines of operation (LOOs).<sup>432</sup> Previously, the Army had adopted a sequential approach to the urban battlespace, which emphasised establishing security *first*, then engaging in reconstruction and development. This traditional approach is a twist on the linear scaling assumptions made about the tactical, operational, and strategic levels. This approach assumes that establishing tactical success first (capturing the streets, patrolling the ground level) lays the ground for operational- and then strategic-level interventions in the battlespace. However, General Chiarelli notes:

The outcome of a sequential plan allowed insurgent leaders to gain a competitive advantage through solidifying the psychological and structural support of the populace.<sup>433</sup>

Without reconstruction and development to win the all-important hearts and minds of the Iraqi people, there was a continuous degradation of the security situation, despite the focused tactical efforts of 1<sup>st</sup> Cavalry. Multiple LOOs subverted the idea

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<sup>431</sup> Jonathan F. Keiler, "Who Won the Battle of Fallujah?" *Proceedings of the U.S. Naval Institute* January (2005), 57, cited in Ricks, *Fiasco: The American Military Adventure in Iraq*, 405. For descriptions of the key tactical aspects of the joint Marine Corps-Army-UK Army assault on Fallujah in November 2004 (one of the most ferocious battles of the post-invasion campaign), see, Capt. Michael D. Skaggs, "Tank-Infantry Integration," *Marine Corps Gazette* 89, no. 6 (2005); Lt. Gen. John F Sattler and Lt. Col. Daniel H Wilson, "Operation AL Fajr: The Battle of Fallujah – Part II," *Marine Corps Gazette* 89, no. 7 (2005); 1<sup>st</sup> Lt. Carin Calvin, "The Assaultman in an Urban Environment," *Marine Corps Gazette* 89, no. 7 (2005).

<sup>432</sup> See, Maj. Gen. Peter W. Chiarelli and Maj. Patrick R. Michaelis, "Winning the Peace: The Requirement for Full Spectrum Operations," *Military Review* July-August (2005).

<sup>433</sup> Chiarelli et al., "Winning the Peace," 4.

that reconstruction and development were things to be added on top of a secure battlespace. Rather, the battlespace came to comprise multiple, interlocking systems. This had the effect of making each layer of warfare more complicated, as well as of making many more enactments of the battlespace at lower levels important to the upper echelons of command. For example, civilian geographies were deemed to be vitally important by upper echelons of command, as they sought to re-establish infrastructure and the general functioning of the city, as well as the lower levels of command looking to navigate the city. Figure 13 (below) illustrates one of the ways in which Divisional Headquarters tracked multiple kinds of information at a high (essentially tactical) level of granularity (the Significant Activities or SIGACTs, sewerage, electricity grid operation in a small portion of the city) in order to achieve strategic effect (an understanding of trigger points of Shi'ite insurgent activity).

1<sup>st</sup> Cavalry's actions suggest that the usual role of command in addressing multiplicity through repressing and/or excluding alternative enactments of battlespace is insufficient to explain command behaviour in the complex circumstances of Iraq. The following sections explore some of the novel ways in which CPOF has gone about addressing this newly militarily important multiplicity in ways that do not simply exclude alternative textures of the battlespace.

### **Taming multiplicity in CPOF through narrative singularity**

While pursuing multiple LOOs made upper echelon commanders receptive to the multiple textures of the battlespace, strong *narrative* singularity remained in this mode of enacting the city. In particular, multiple LOOs were narrated as a preliminary 'untangling' of the systems that comprise the city, with each LOO representing one system essential to the functioning of the well-ordered city. So there was a need to: control *networks* of insurgents (combat operations); establish a

system of law and order (train security forces); regulate flows of garbage, power, and other essential city by-products (provide essential services); organise networks of power and order (promote indigenous governance); and mobilise and proliferate economic systems (promote economic pluralism). Together these systems comprised the city as 1<sup>st</sup> Cavalry understood it, and there was a strong sense that (maps representing) these LOOs added up to a coherent, if highly complex, whole. Figure 13 illustrates this narrative singularity with startling clarity.

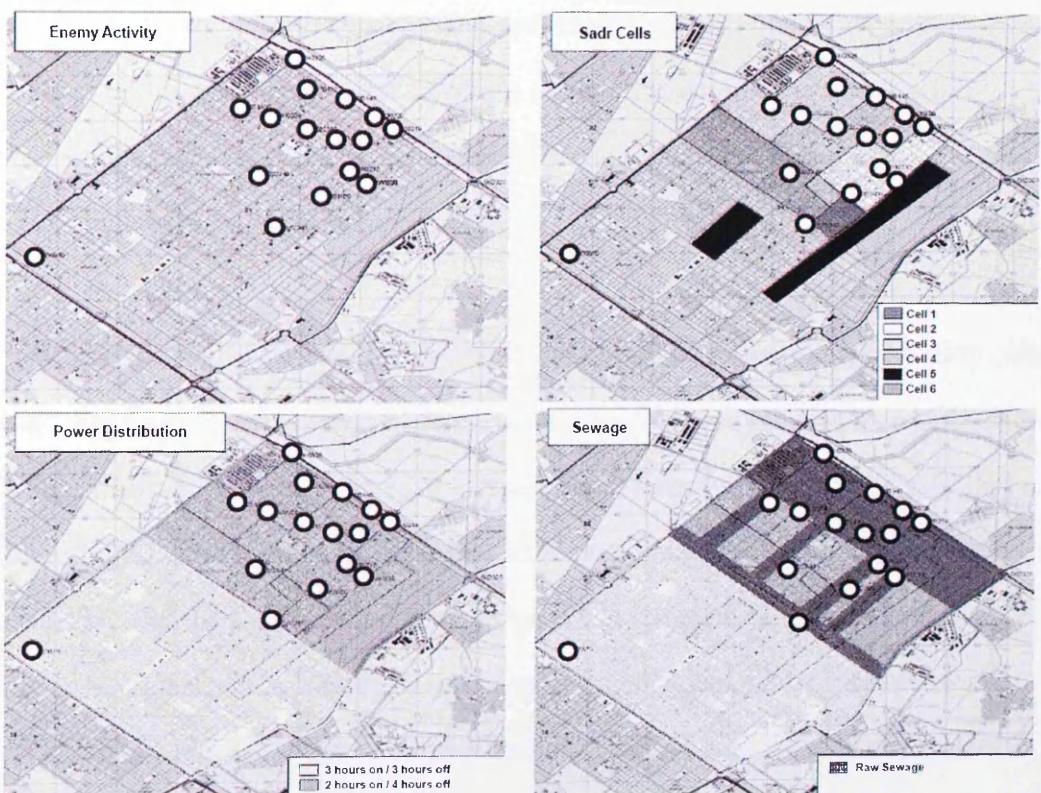


FIGURE 13. Diagram illustrating the correlation between infrastructure failures and enemy activity in Sadr City. [Reprinted from Maj. Gen. Peter Chiarelli and Maj. Patrick Michaelis, "Winning the Peace: The Requirement for Full-Spectrum Operations," *Military Review* July-August (2005): 9.]

Figure 13 proceeds through the sequential layering of information on a map (it should be read left to right, top to bottom). Each new layer adds more 'depth' to the city and to the commander's understanding of the city. The narrative causality is clear: the usual geography of concern to the commander is enemy activity (SIGACTs, represented by circles), which can be explained if the other systems of the city

(sewerage and power distribution) are included in the narrative. In this campaign plan the multiple faces of the battlespace exist within a tightly constrained conceptualisation of linked causality (failures of sewerage and electricity cause enemy activity). The tension between multiplicity and singularity is pulling strongly toward the side of singularity.

However, it was unusual for the battlespace to reveal itself in such linear depth. Consequently, 1<sup>st</sup> Cavalry utilised an alternative and complementary discourse of the city as a system too complex for explanation. The discourse of complexity plays many functions within this thesis. First Cavalry's adoption of complexity as a motif for understanding Baghdad is just one example of the US Army's attempts to operationalise the implications of complexity.

When confronted with something that escapes linear or simple explanation, with things that do not easily add up or that cannot be easily predicted, there are a number of things one might mean when saying 'this thing is complex.'<sup>434</sup> One of these might be that the thing is complex in a way that aligns with the alternative real presented previously, that the thing is messy, noncoherent, and uncertain. Law refers to this as baroque complexity, where complexity is endlessly intricate, highly promiscuous, inarticulable, and incomplete.<sup>435</sup> Such a version of complexity acknowledges that there is no overview possible, no guarantee of coherence, no singular logic at work, only a continuous impetus to look further 'down' into the mess rather than 'over' or 'across' it.

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<sup>434</sup> See, Annemarie Mol and John Law, "Complexities: An Introduction," in *Complexities: Social Studies of Knowledge Practices*, ed. Annemarie Mol and John Law, 1-22 (Durham: Duke University Press, 2002), 1-3.

<sup>435</sup> See, John Law, "And if the Global Were Small and Noncoherent? Method, Complexity, and the Baroque," *Environment and Planning D: Society and Space* 22, no. 1 (2004).

On the other hand, one might mean that this complex thing is an ‘open system,’ displaying properties identified by the branches of mathematics and physics (and later, biology) which responds to ordering (mathematical) principles of chaos and nonlinearity. Such concepts were popularised in the 1990s, and spread throughout the social sciences to establish a firm foundation for understanding the world as fundamentally composed of complex systems.<sup>436</sup> Such systems may not be linear or easily explicable, but they display some regular or predictable qualities, and are capable of rendering as a coherent whole, even if details of their working remain elusive.

This scientific understanding of complexity has been highly influential in the new biopolitical security agenda identified by Dillon and Reid and discussed above. In particular, it has been important in both the NCW and force transformation discourses. In these, the world is viewed as being composed of complex, nonlinear systems that are, given sufficient information, capable of both comprehension and manipulation.<sup>437</sup> The persuasiveness of this view of the world is such that military analysts spent much of the late 1990s arguing about whether Clausewitzian ‘friction’ could be removed (the fog of war penetrated) through a sufficiently sophisticated understanding of the systems underlying the prosecution of war.<sup>438</sup> While enthusiasm for the usefulness of complexity as a tool for commanders has since been dampened

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<sup>436</sup> See, for example, Raymond A. Eve, Sara Horsfall and Mary E. Lee, ed., *Chaos, Complexity, and Sociology: Myths, Models, and Theories* (London: Sage Publications, 1997).

<sup>437</sup> See, for example, David S. Alberts and Thomas J. Czerwinski, ed., *Complexity, Global Politics, and National Security* (Washington, DC: National Defense University, 1997); Thomas Czerwinski, *Coping With the Bounds: Speculations on Nonlinearity in Military Affairs* (Washington, DC: Institute for National Strategic Studies, 1998); John Arquilla and David Ronfeldt, ed., *Networks and Netwars: The Future of Terror, Crime, and Militancy* (Santa Monica, CA: RAND, 2001).

<sup>438</sup> See, Barry D. Watts, *Clausewitzian Friction and Future War: McNair Paper 52* (Washington, DC: Institute for National Strategic Studies, National Defense University, 1996); cf. John F. Schmitt and Gary A. Klein, “Fighting in the Fog: Dealing With Battlefield Uncertainty,” *Marine Corps Gazette* 80, no. 8 (1996).

by an appreciation of the general difficulty of engaging in such complicated calculation and analysis in the time-pressured environment of the battlespace, the idea persists that the battlespace is a complex system that could be understood as such if there was simply a big enough computer or sufficient time.

Figure 13 was compiled using this second definition of complexity, whereby complex behaviours (enemy activity) emerge out of the interaction of complex systems. Yet, in practice, CPOF was rarely used to understand Baghdad through the addition of multiple battlespaces into a complex whole. More often, in practice (as opposed to in the campaign plan) such multiplicity was never expected to add up to a coherent, actionable whole. By asserting the putative (but usually unprovable) existence of a coherent, complex whole, the discourse of complexity could elide the fact of inconsistency and noncoherence in the general narrative of the battle, but did little in practice to assist commanders confronted with multiple battlespaces (particularly in CPOF).<sup>439</sup>

Multiplicity in CPOF was instead addressed through a number of different mechanisms, two of which are discussed in the following section: the mechanism of layering multiplicity; and the creation of “communities of time” that operated to provide temporal instead of spatial coherence. These had the result of creating a particular orientation to the battlespace, one which demonstrates the openness of the spatialising practices of violence by 1<sup>st</sup> Cavalry.

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<sup>439</sup> As an indication that the addition of systems into a larger complex whole is largely a discursive and not a praxiographic enterprise, it is worth noting that Figure 13 was constructed for an article written on return from deployment – an article that attempts to make sense of 1<sup>st</sup> Cavalry’s year in Baghdad.

## Correlating multiplicity in CPOF through layering

In practice, the ‘fractions’ of the battlespace on CPOF were enacted in a way that had little to do with adding them up to form a coherent, if complex, whole. Yet if fractions of the battlespace were not added up, then how were they related? In this, CPOF enacted battlespaces in a mode of ‘dimensionless layering’ that is unique to the cybernetic world. Layering here refers to the map windows layered on top of each other inside the computer screen, while the word ‘dimensionless’ qualifies this because maps are not layered on one another to add depth. Layering through depth is common in both the real world (where acetate overlays add increasing depth to a base map, for example) and in CPOF (where icons are layered onto a digital base to form an increasingly rich picture). However, dimensionless layering is less common and refers to the ability to distribute different layers in a dimensionless space, such that they are kept completely separate, but at the same time, close to each other (the distance of a mouse-click). In keeping multiplicity distributed in the same space, CPOF performs what is perhaps a unique distribution of multiplicity within military command.

This has significant consequences for the behaviour of users of the system. It is common when confronted with multiplicity to attempt to resolve incompatibilities in some way. We have seen already some of the ways in which this can happen: gold standards can be used to determine the ‘real’ real; incompatible realities can be excluded and/or suppressed; strands can be brought together in a ‘covering’ (difference effacing) singular narrative. When alternate realities are nevertheless forced together, as in CPOF, then inconsistency is usually addressed through the mechanism of local controversy. As Mol puts it, in the context of atherosclerosis, the question is not about which real is ‘generally’ right or wrong; instead, the question becomes what to do with *this* patient, how to address *this* circumstance:

Instead of a global controversy or a consensus, this is another distribution of reality over different sites. Over different sites, this time, in the reality of atherosclerosis.<sup>440</sup>

Noncoherence between multiple enactments of atherosclerosis is addressed at intersections (the borders between multiple sites) which play an important translating role. At these borders controversy is resolved to a greater or lesser degree, in a more or less temporary manner.

What happens in CPOF is something quite different. There is no intersection, no overlap where multiple battlespaces meet: instead multiple battlespaces are correlated explicitly by the user's direct movement from one site to another. In fact, it is the ability of the user to maintain this movement that marks their aptitude at using the system. Interviewees consistently indicated that unsuccessful CPOF users were those who could not hack the pace of the system. Those who could not navigate between pages with sufficient speed to keep track of the constantly mutating conditions marked there, those who were insufficiently dexterous to simultaneously update multiple maps (while all the time performing their other functions, including talking on Ventrilo and communicating with their commander) were the users held in contempt by their peers. Interestingly, the spatiality of the CPOF user is akin to the spatiality of the nomad as described by Deleuze and Guattari. It is the spatiality of the intermezzo:<sup>441</sup>

A path is always between two points, but the in-between has taken on all the consistency and enjoys both an autonomy and a direction of its own. The life of the nomad is the intermezzo. Even the elements of his dwelling are conceived in terms of the trajectory that is forever mobilizing them.<sup>442</sup>

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<sup>440</sup> Mol, *The Body Multiple*, 108.

<sup>441</sup> 'Intermezzo': "a short dramatic, musical, or other entertainment of light character introduced between the acts of a drama or opera." *The Macquarie Dictionary*, 3<sup>rd</sup> ed., s.v. "intermezzo."

<sup>442</sup> Gilles Deleuze and Félix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia Vol. 2* (London: Continuum, 2004), 419.

The intermezzo enables mutual incompatibility – there was a working assumption that things would not necessarily add up between maps, nor even within maps. Maps moved too quickly for users to be concerned with the formulation of singularity. The movement of the intermezzo kept incompatibilities apart, it mobilised (added velocity to) the user and allowed them to escape the gravity created by logical inconsistency. That is, CPOF correlated multiple battlespaces according to criteria that were unrelated to the need to maintain logical consistency in the picture of the battlespace, and were instead related to the mobilising impulse of the user.

This meant that CPOF operated quite differently to other means of communication between TOCs, which required a substantial degree of time and effort being spent to translate outside information onto pre-existing representations. That is, traditional methods of communication were ‘borders’ capable of translating and resolving local controversy as described by Mol. By contrast, the common interface of CPOF meant that the work of translation was not required. Of course, this work was replaced with other work, the work of movement – a creative action subject to novel mobilising processes.<sup>443</sup>

The user’s ability to cope with incompatibility did not flow simply from the rapidly changing maps. Information about the battlespace has always changed rapidly. Usually a force either collapses multiplicity into a single battlespace or distributes it vertically within the TOC (between specialised functions of the command structure), and horizontally below the TOC (down the chain of command). It is the user’s ability to move between maps that enables this unique mode of correlating multiple battlespaces. Before CPOF, there were few tools enabling nearly simultaneous and purposeful intervention in multiple battlespaces by the

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<sup>443</sup> One of these mobilising processes was the common temporality that tied the system together and helped govern its use, discussed in the following section.

commander. The ‘nearly’ is significant: it is this delay that is the moment of the movement of the user that adds the pause – the moment of creative possibility. Doctrine and established command processes suggest that the user’s movement should be mobilised by a series of command priorities. However, at a practical level, movement was more inflected by the ‘mode’ of behaviour (an affect of encountering) engendered by the system than by doctrine, a mode that emerges from the temporality that binds the system together.

### **Mobilising multiplicity in CPOF through temporality**

The previous section discussed the way in which in CPOF’s maps were spatially distributed in a way that allowed multiplicity to be held alongside itself in tension, with layers rarely resolving into one another (in this, Figure 13 is the exception rather than the rule). This distribution rested on the ability of the battle captain to move between layers. This prompts further questions about the movement of the battle captain. Why did he move to a particular battlespace? What prompted him to move on?

In other spatial distributions of multiplicity, multiplicity is ‘properly’ separated by spatial distance and noncoherence is addressed through translation effects at the borders of different sites. In these situations, questions of which version of something to enact are built into the fixed spatial relationships between different sites. To use Mol’s study, go to the clinic first (where atherosclerosis is pain-on-walking), then go to the lab (where it is thickened artery walls). In CPOF, the simultaneous presence of multiplicity within one spatial location (the screen) makes it difficult to identify a pattern in the user’s order of enactment (Which first? Then what?). Difficult, but not impossible. This section illustrates one way in which orders of enactment were established in CPOF, not through spatial distribution and regulation (enacting this

here, followed by that there), but through temporal ‘coordination’ (enacting this now, enacting that then).<sup>444</sup> According to this argument, the determination of which enactment of the battlespace is given priority at any given time is connected to the (varying) flow of time inside CPOF. The fluctuating nature of this flow of time engenders an experimental orientation within the battlespace, one best described as ‘event-ful.’

This section discusses how the temporality of CPOF mobilised 1<sup>st</sup> Cavalry to exploit the multiplicity they encountered in a novel way. Firstly, it discusses the two (seemingly opposed) features that inflect the temporality of CPOF: its rhythmic enactment and its constant alteration. It then discusses how this temporality established a “community of time” in 1<sup>st</sup> Cavalry that was sufficiently invested in the system’s commonality to enable it to be used in the mobile way discussed.<sup>445</sup> Finally, the temporal ordering of the user’s enactment of multiple battlespaces will be discussed with reference to the ‘structure of feeling’ it engenders, one that is termed an ‘event-ful’ orientation to the battlespace.

#### The temporality of CPOF: rhythm and change

In part, the hypnotically rhythmic temporality of the TOC embedded an expectation in CPOF users that things would emerge in similar ways to how they had emerged before. Daily life in the command post was often referred to by interviewees as ‘Groundhog Day,’ a reference to the movie in which the same day is lived over and over with only minor variations. Safely enclosed in either the Green Zone or Forward

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<sup>444</sup> Coordination has been avoided in this chapter as a metaphor as it is too structural to describe the use of CPOF. CPOF did not coordinate multiple battlespaces (which implies a kind of resultant coherence), rather it mobilised 1<sup>st</sup> Cavalry to exploit the multiplicity of battlespace in a novel and experimental way.

<sup>445</sup> See, Karin Knorr-Cetina and Urs Bruegger, "Global Microstructures: The Virtual Societies of Financial Markets," *American Journal of Sociology* 107, no. 4 (2002): 928-32.

Operating Bases, removed from the sights and smells of Baghdad, many of the interviewees worked 12-hour days, seven days a week for an entire year, interrupted by only two weeks holiday. Interviewees returned day after day to the same crowded room to perform a distinctly repetitive daily schedule, starting with the Commander's Update Briefing in the morning, and finishing in the evening with a changeover briefing.

But the rhythm of the TOC was not internally determined. Interviewees noted the rhythm of 'hot spots' and 'hot times': here, the rhythm of the *insurgent's* life (in)forms the temporality of CPOF. Lunch, dinner, the call to prayer, all marked lulls in violence and incident reports. These lulls, in turn, allowed more routine, non-combat oriented work to be pursued – work that was deprioritised when troops were engaged in firefights, or when things were exploding. Interestingly, one captain qualified this observation by saying that he wasn't sure you would see this rhythm in statistics: we see here the disconnect between quantitative enactments of the battlespace (the Vietnam-era statistical approach) and qualitative enactments (the intuitive 'sense' of the battlespace). They did not always add up; battlespaces do not always match.

However, the rhythmic environment in which CPOF operated (the daily rhythm of the TOC, the rhythms of Baghdad) acted as a counterpoint to the changing and mobile nature of the battlespace in CPOF. The day might return anew, but it was subtly (or radically) different each time, and the nature of the system meant that the user was required to orient themselves in time to a constantly altering present. CPOF is unlike traditional geographic information systems, which illustrate "static samples, synchronic slices taken out of the flow on rapid but nonetheless individually discrete

data-images of a single moment.”<sup>446</sup> On CPOF, data is “live,” in that the representation onscreen *is* the underlying information (change to one simultaneously alters the other).<sup>447</sup> A unit with a Blue Force Tracker moves, and so does its icon; an Intel officer reports the altered location of an insurgent cell on ABCS and the icon moves as well. As a result, CPOF was a constantly running record of the present.<sup>448</sup> The mobility of its inputs varied from source to source (some of the demographic overlays, for example, were discontinuous in the manner of traditional GIS), but the system as a whole continually updated and altered.

In this, CPOF is like the computer systems explored by Knorr-Cetina which ‘contain’ international monetary exchange markets. As she argues:

As the information scrolls down the screens and is replaced by new information, a new market reality continually projects itself. The constantly emerging lines of text at times repeat the disappearing ones, but they also add to them and replace them, updating the reality in which traders move. The market as a ‘greater being’, as an empirical object of ongoing activities and effects, continually transforms itself like a bird changing direction in mid-flight, creating the anticipation problem traders confront. From one point of view, a defining characteristic of a financial market is its non-identity with itself.<sup>449</sup>

Similarly, the battlespace of CPOF constantly altered. Limited to be sure by the stubborn materiality of the city, the system was nonetheless incapable of being demarcated by fixed markers or definite signposts. The temporality of CPOF, then,

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<sup>446</sup> Sean Cubitt, “Visual and Audiovisual: From Image to Moving Image,” *Journal of Visual Culture* 1, no. 3 (2002): 363.

<sup>447</sup> MAYA Viz, “Command Post of the Future Project” (2003), [http://www.mayaviz.com/web/industries/military/industry\\_mil\\_darpa\\_cpof.mhtml](http://www.mayaviz.com/web/industries/military/industry_mil_darpa_cpof.mhtml), 9.

<sup>448</sup> Indeed, it is for this reason that military analysts are interested in analysing ‘moments’ from the system to seek to understand the operation of command and control in the US Army. See, Kirk Dunkelberger et al., “Command and Control Forensics,” paper presented at *10th International Command and Control Research and Technology Symposium*, McLean, VA, June 2005.

<sup>449</sup> Karin Knorr-Cetina, “From Pipes to Scopes: The Flow Architecture of Financial Markets,” *Distinktion: The Scandinavian Journal of Social Theory* 7 (2003): 15-16.

was not only rhythmic but also fluid and processual. CPOF maps were as marked by their non-identity with their previous selves as they were by their non-identity with other maps.

This non-identity is related to the unfinished nature of the temporality of CPOF: because the temporality of CPOF maps was a running record of the present, the system could be messy in the extreme. For example, while situation reports were a primary method of guiding attention and focus, there were often multiple icons on the screen representing the same event (from multiple reports that were as yet unreconciled). When alterations were made, however, they were made *not* as synoptic overview was gained ('I know this for certain'), but rather as the CPOF user encountered more of the moment ('I think this is right,' 'someone needs to know something about this, accurate or not').

The temporality of CPOF was, then, mobile, but its movement was tempered by rhythm. The following discusses how this temporality created a "community of time" among CPOF users, who were mobilised to navigate multiple battlespaces in a more ordered way than might otherwise have been expected in a system as spatially distributed, highly mobile, and multifaceted as CPOF. However, this order was not a rigid order of sequence or rankings. Rather, thanks to the varying flow of time in CPOF and the 'structure of feeling' it created (an affective affinity for encountering), this order(ing) responded to the 'event-fulness' of the battlespace.

#### Creating a community of time

Knorr-Cetina and Bruegger articulate the concept of "communities of time" in their work on global financial markets.<sup>450</sup> For the authors, shared temporality is key

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<sup>450</sup> Knorr-Cetina et al., "Virtual Societies of Financial Markets," 928-32.

to understanding how highly (spatially) dispersed actors can operate in an orderly way in a system which, as discussed above, is sufficiently fast-flowing that “a defining characteristic ... is its non-identity with itself.”<sup>451</sup>

Knorr-Cetina and Bruegger note a number of features of this temporality which is shared with CPOF. Firstly, there is the *synchronised, continuous* observation of events by all members of the user community. These events are presented in the system with *temporal immediacy*. As with traders, CPOF users watched the system at the same time and in a continuous manner, for example, with users of both systems “having lunch at their desks and asking others to watch when they step out.”<sup>452</sup> Indeed, in some TOCs it was mandated that the CPOF be manned at all times.

Secondly, Knorr-Cetina and Bruegger note a “temporal division of labor, such that the community of time extends around the clock.”<sup>453</sup> In financial markets, this temporal division of labour is achieved by distributing labour across time zones. In command posts in Baghdad night and day staffs (12-hour shifts each) man the system continuously. Handover briefings were intended to create an alignment of understandings of the battlespace between day and night users of CPOF. However, users tended to create and keep their own maps, in addition to sharing some with the maps of the alternate shift-user (with those on night shift generally less involved in the creation of maps), implying a less than fully continuous operation of the system.

Thirdly, and finally, Knorr-Cetina and Bruegger identify the use of “calendars and schedules [which] create an atmosphere of collective anticipation and preparation for specific events that pace and interrupt the regular flow of market

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<sup>451</sup> Knorr-Cetina, “From Pipes to Scopes,” 16.

<sup>452</sup> Knorr-Cetina et al., “Virtual Societies of Financial Markets,” 929.

<sup>453</sup> Knorr-Cetina et al., “Virtual Societies of Financial Markets,” 929.

activities.”<sup>454</sup> For CPOF, the planning processes of the Division imposed an external sense of the passage of time (the Commander’s Update Briefing is but one example of this: smaller scale planning meetings, such as those coordinating the distribution of air support, were also daily occurrences). During 1<sup>st</sup> Cavalry’s deployment in Baghdad, there were also certain dates which were used to mark significant changes in the battlespace and by which 1<sup>st</sup> Cavalry could schedule activities. In particular, these were the handover of sovereignty, the election of representatives to draft a constitution, and the referendum on the constitution (see Figure 7 for an example of the significance of these dates in marking out the battlespace). In interviews, these dates were often used as explanatory mechanisms of some significance.

The creation of a community of CPOF users inculcated in a common temporality had two significant consequences. Firstly, users possessed sufficient trust in the system to overcome suspicion of the incompatibility and multiplicity created by the multiple maps in the system. Without the “community of time” (particularly without the practices of constant attendance and the temporal division of labour), users would have had little faith in the multiple maps presented on the CPOF, and would have placed little reliance on the multiplicity represented therein. In the face of a lack of common spatiality, users sought reassurance in common temporality. Even as it was, however, the changeover from night to day shifts was marked by a distinct period of realignment as day users double-checked the accuracy of maps that had been updated by night users (considered generally to be less adept with the system). Significantly, then, CPOF created a credible (temporally coherent) system within which multiplicity could be contained and not erased. Knorr-Cetina makes a similar point in a different context, when she argues that:

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<sup>454</sup> Knorr-Cetina et al., “Virtual Societies of Financial Markets,” 929-30.

Another implication is that – as a form of coordination – the temporality postulated fulfils some of the functions Weber associated with rational authority structures. In other words, the theoretical argument here is that time-structuring affords a form of coordination that can take the place of institutional control and social authority structures.<sup>455</sup>

Secondly, creating a community of time correlated the actions of users who were spatially dispersed by creating a common ‘structure of feeling’ – an affective affinity that enrolled the users in a novel mode of organising violence. To be involved in the enactment of the battlespace of 1<sup>st</sup> Brigade, for example, it was not necessary for other Brigade commanders to physically *go* to Sadr City and leave behind other enactments of the battlespace (or bring them along in only subsidiary forms, such as in maps, radios, and so on). One could, instead, enact that battlespace and then, with a single click, enact an entirely different battlespace. It was the community of time that mobilised the ‘clicks’ by which users navigated these multiple enactments, by engendering an affect of encountering.

#### Event-ful battlespaces and the affect of encountering

The temporality of CPOF structured (enrolled) the user’s interaction with multiple battlespaces in two primary ways. Firstly, and more simply, the rhythm of CPOF provided a basic structure for the operating the system. For example, rhythm allowed for more predictable interaction with other users (knowing when users were likely to be on Ventrilo, for example). Similarly, it guided users to particular sections of the battlespace at moments when they were more likely to have an impact (the monitoring of trouble spots at known hot times). Rhythm also provided a certain degree of singularity in the use of the system – for example, by focussing all users on a single map during the daily Commander’s Update Briefings. Yet even this common

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<sup>455</sup> Karin Knorr-Cetina, "Complex Global Microstructures: The New Terrorist Societies," *Theory, Culture & Society* 22, no. 5 (2005): 220.

use was often accompanied by the ‘wandering eye’ that marked the effective CPOF user. With one eye on the shared screen, the battle captain kept the other on his own screens: users continued to track multiplicity even when rhythm dictated singularity or predictability.

This ‘wandering eye’ hints at the second way in which the temporality of CPOF structured the user’s mode of interaction with the battlespace – although ‘structure’ implies an overly rigid sense of what is being suggested here. Rather, we might follow Knorr-Cetina, and refer to a ‘structure of feeling’ through which CPOF operates.<sup>456</sup> The structure of feeling of CPOF was precisely that which set the eye to wandering – it was that which mobilises, that which provides an affective relation with the ongoing event. It was, in other words, that which mobilised the user to engage multiplicity as multiplicity, exploiting it for the benefit of the US Army. In an alternative metaphor, we might think instead of the suggestion by Deleuze and Guattari that all assemblages are affective (desiring) assemblages – that “there is no desire but assembling, assembled, desire.”<sup>457</sup> The assemblage of CPOF-1<sup>st</sup> Cavalry-Baghdad assembled (mobilised) the CPOF user according to its own affective orientation, one which did not repress multiplicity, nor elide it, but which mobilised the user through it and across it.

This second argument draws on one made by Knorr-Cetina in her discussion of the operation of al-Qaeda. Knorr-Cetina argues that, like financial market users (and, indeed, CPOF users), members of al-Qaeda are bound together in a community of time, one which uses digital media to overcome the dislocation of spatial distribution. The impact of belonging to this community of time (the impact of ‘having become’ as

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<sup>456</sup> The concept “structure of feeling” is adapted from Raymond Williams. See, Raymond Williams, *Marxism and Literature* (Oxford: Oxford University Press, 1977), Chapter Nine. Cited, Knorr-Cetina, “The New Terrorist Societies,” 218.

<sup>457</sup> Deleuze et al., *A Thousand Plateaus*, 440.

she terms it) on one's 'structure of feeling' subtly alters the way in which al-Qaeda members go about the activities of everyday life:

Thus those who 'have become' will still go about the business of everyday life and attend to what is demanded of them. But they will do so in a different mode; what has changed, in a term borrowed from Williams, is a structure of feeling, and the living of time.<sup>458</sup>

Time, then, is lived by the al-Qaeda member for the coming future (the re-establishment of an Islamic caliphate, the defeat of the American Empire in the Holy Lands). As a result, this futural structure of feeling "grounds modes of affectivity that have served al-Qaeda in the past," such as *patience* and *preparedness*.<sup>459</sup> That is, the structure of feeling for al-Qaeda makes possible their particularly virulent form of violence.

This is quite a different structure of feeling to that created by CPOF's community of time, with quite different modes of affectivity. Yet the process is the same: the structure of feeling is, to use Deleuze and Guattari's terms, that which draws together the untimely assemblage of the war machine.<sup>460</sup> The temporality of CPOF was not 'futural' as is Al-Qaeda's, but was oriented instead to the constantly changing present. This temporality grounded a mode of affectivity that oriented the user to the 'event-ful' battlespace – to a battlespace constantly marked by new events.

CPOF's implication in an 'event-ful' temporality can be connected to both the demand for the constant attention of the user through its running display of the present (its 'present-ing' of the battlespace), and the simultaneous lack of instruction as to which element of the present should be addressed at any given moment. As the icons which represent so much of the changing activity on CPOF are referred to as

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<sup>458</sup> Knorr-Cetina, "The New Terrorist Societies," 218.

<sup>459</sup> Knorr-Cetina, "The New Terrorist Societies," 219.

<sup>460</sup> See, Deleuze et al., *A Thousand Plateaus*, 445.

‘event’ icons, it is appropriate to think of this as an ‘event-ful’ temporality. Users are ‘event-minded’ in a way that stands in contrast to more traditional interactions with command tools, where command staff are more concerned with the fate of pre-existing plans or predetermined points of effort than with navigating the battlespace in search of new events of significance. Where traditional command tools encourage an emphasis on singularity in the battlespace, CPOF actively engages the user in the utilisation of the battlespace’s multiplicity.

For a sense of this change in the ‘tone’ of 1<sup>st</sup> Cavalry’s interaction with the battlespace, it is useful to return to the starting point for much traditional thinking on war, that of Carl von Clausewitz. Clausewitz took rather a dim view of information regarding events in the command process: he described it as “sea [which] breaks its fury” on the commander, whose duty is to stand firm in his intent in the face of its force.<sup>461</sup> By contrast, CPOF does not ‘assault’ the user with reports: its multiple maps are accessed by the user moving *through* them (*to* them) as they alter, and not vice versa. In fact, the battle captain’s experience of reports of the battle through CPOF was more akin to *discovery* (or encountering) than battery. Or, to quote Mol and Law from an entirely different context, “walking … is a mode of covering space that gives no overview.”<sup>462</sup> How, then, did users ‘decide’ to walk between maps? What mobilised them? What arrested their attention? The answers to these questions dictate how effectively, and to what degree, user’s could exploit battlespace multiplicity for US Army success.

Partly, users engaged in a constant surveillance of the changing conditions. Partly, users were flagged to attend to particular areas by external stimuli, including radio calls, CNN reports, or a call via the Ventrilo system. Either way, users

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<sup>461</sup> Carl Von Clausewitz, *On War* (London: Penguin Books, 1968), 163.

<sup>462</sup> Mol et al., “Complexities,” 16.

'encountered' an event in the battlespace and tracked its unfolding in time. This contrasts with the behaviour encouraged by command tools in Vietnam, where information 'in the present' was actually less useful in the established command process than information about the completed event (it is impossible to categorise and form statistics regarding an ongoing event). In fact, in Vietnam, this was such a problem that commanders subverted their own established command tools, and used helicopters to 'directly' witness the battle.<sup>463</sup> Yet even this 'witnessing' of a battle in real time was not the same as the affectivity of encountering engendered in CPOF users. CPOF users were successful insofar as they could encounter and identify *a continuing and simultaneous parade* of events of significance in the constantly permutating maps on their screens: being present in the moment for one event did not give a user licence to ignore others (although it is true that certain non-combat activities, such as reconstruction activity, did tend to be deprioritised during the event of a firefight). Indeed, it was the user's – and, by association, their commander's – ability to enact multiple battlespaces at any given moment that enabled them to intervene in multiple battlespaces at once (nearly), in a way that had previously been impossible.<sup>464</sup>

To give a sense of the nature of event-fulness with which CPOF users were dealing, in August 2004, in the Shi'a slum of Sadr City, the number of SIGACTs in the

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<sup>463</sup> Creveld, *Command in War*, 255.

<sup>464</sup> See, however, other efforts to achieve this effect, including attempts to literally mobilise the body of the commander:

Command and Control On The Move (C2OTM) applications enable commanders to receive data-intensive information via satellite-downlinked feeds, on the move. Utilizing new generation satellite antennae, designed for mobile platforms, Command and control tracked version of the new Future Combat Systems family of vehicles C2OTM introduces tactical commanders with new capabilities to deploy their command elements to the most critical points, without loosing contact with their tactical operations center (TOC).

Defense Update, "Dismounted and Mobile Command and Control Systems," *Defense Update* 5, no. 1 (2005), <http://www.defense-update.com/features/du-1-05/c4-onthemove.htm>.

area was counted at around 160 a week.<sup>465</sup> At over 20 combat incidents a day, the CPOF users of 1<sup>st</sup> Brigade were required to be able to maintain their coverage of combat aspects of the battlespace, as well as to identify and begin to address the other LOOs which formed part of the battlespace in Sadr City. Users then *scanned* the battlespace for emerging events, while accepting that the battlespace with which they were presently dealing was only ever partially enacted and likely to constantly alter.

Gillian Fuller has identified scanning as a new mode of envisioning movement, one that is unique to “a world of movement where variability and instability is constant.”<sup>466</sup> Linking her analysis to Deleuze’s analysis of control societies, Fuller notes that the scan operates in such a way that it is not disciplinary (or concerned with outcomes) but controlling (concerned with process). CPOF users scanning the battlespace were more concerned with maintaining the battlespace in a state in which variations of the battlespace in any given moment (caused by SIGACTs, reconstruction activity, and so on) was controlled, than in locating, identifying and punishing any particular culprits.<sup>467</sup>

It is in this context that we can understand one of the stranger features of CPOF, the collapse of criminal and enemy activity into the single category of SIGACTs. Obviously, in the period after the invasion many incidents likely to be reported on CPOF were as easily attributed to the upsurge in criminal activity following the collapse of effective state institutions as to enemy activity. For example, icons representing enemy fire, friendly Iraqi dead, hijackings, and unidentified explosions,

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<sup>465</sup> Richard Lowry, "What Went Right: How the U.S. Began to Quell the Insurgency in Iraq," *National Review* 57, no. 8 (2005): 29.

<sup>466</sup> Gillian Fuller, "Perfect Match: Biometrics and Body Patterning in a Networked World," *fibreculture: the journal* 1(2003), [http://journal.fibreculture.org/issue1/issue1\\_fuller.html](http://journal.fibreculture.org/issue1/issue1_fuller.html).

<sup>467</sup> See Figure 13, where the primary concern is with altering the conditions that make violence possible rather than locating the perpetrators of violence themselves.

could all refer to activities that were not properly the action of ‘the enemy’ at all. This slippage in categorisation would be problematic for traditional commanders in war, who would be concerned to understand the enemy’s actions and intentions. However, in the context of CPOF, this lack of clarity combined with a mode of interacting with the battlespace that saw the priority lie in navigating the city successfully to produce a spatialisation of violence that was necessarily mobile. In this context, a hijacking became problematic whether it was enemy initiated or not for its impact on traffic flows; an explosion was similarly problematic, whether it was a result of people stealing petrol from pipelines or whether it was from an IED.

Fuller argues that in a world where variability and instability reign, from the point of view of the powerful the smart money is on ensuring that things do not vary too much or become too unstable in any given context. Hence General Chiarelli could note with satisfaction that SIGACTs in Sadr City had dropped to less than 10 a week, “at which point it gets hard to differentiate between crime and insurgent attacks.”<sup>468</sup> It does not matter much whether the activity is criminal or insurgent related: the point is whether the more or less ‘normal’ functioning of the area has been restored. This gives the vital clue to understanding how the user was mobilised to utilise multiplicity for the purposes of military victory: *the CPOF user’s affective response to the constantly altering present was to seek out abnormal functioning and distorted flows.* This is what is meant by a mode of event-fulness: an acute awareness of the events that disrupt the city’s effective daily functioning.

Here we see 1<sup>st</sup> Cavalry operationalising complexity in their campaign plan and experimentalism in their mode of operation by operating in a way that allowed easy, fast access to multiple, conflicting LOOs in the battlespace. It is possible to relate this

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<sup>468</sup> Lowry, “What Went Right.”

mode of operating to the definition of the battlespace that extends its scope and complexity in response to the reformulated contemporary security problematic. CPOF users did indeed subsume the distinction between civilian and military geographies to a broader ordering principle of the ‘event’ (although the event does not necessarily respond to the same ordering principle as adaptable networks).

However, limiting the analytical implications of identifying this mode of navigating (enacting, utilising) the battlespace multiple to a confirmation of the importance of a new security problematic undermines what it is that CPOF enables. According to the argument presented here, one of the fundamental features of CPOF is that it enables *multiple* enactments of the battlespace. This mode of navigating through multiple battlespaces is a unique result of the particular configuration of 1<sup>st</sup> Cavalry and CPOF in Baghdad (which, by all accounts, was not repeated by 3<sup>rd</sup> ID, which followed), and represented a (more or less self-reflexive) response *not* necessarily to the ascendancy of the ‘new’ security problematic in Baghdad, but precisely, as indicated in the first part of this chapter, to the inability of any single spatial ordering to dominate the complicated, messy, and noncoherent spatiality of the city of Baghdad.

### **Conclusions: the experimental quality of event-fulness**

Previously, this chapter has suggested that, following Law, if “the insistence on singularity is productive,” then so might the insistence on multiplicity be deemed productive of new kinds or forms of violence.<sup>469</sup> This chapter has explored the way in which accepting multiplicity (however limited) within its processes led 1<sup>st</sup> Cavalry to engage the city in an entirely different way.

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<sup>469</sup> Law, *After Method*, 66.

CPOF stands, perhaps, at the cusp of being a ‘weapon’ as conceived by Deleuze and Guattari, used in the context of the ‘tools’ of the Army. It is useful here, then, to return to Deleuze and Guattari, who, in a discussion of productive assemblages of violence, discuss the emergence of:

... the new figures of a transhistorical assemblage (neither historical nor eternal, but untimely): the nomad warrior and the ambulant worker. A somber caricature already precedes them, the mercenary or mobile military adviser, and the technocrat or transhumant analysts, CIA and IBM. ... *Martial arts and state-of-the-art technologies have value only because they create the possibility of bringing together worker and warrior masses of a new type. The shared line of flight of the weapon and the tool: a pure possibility, a mutation.*<sup>470</sup>

The use of CPOF to render multiplicity present *as itself* is perhaps one such shared line of flight. The limitations of state violence as identified by Deleuze and Guattari – its reliance on police, its reliance on reason – are hybridised in Baghdad, in CPOF, by a creative war machine that renders violence (potentially) unlimited, (potentially) untamed by reason.<sup>471</sup> Whereas Deleuze and Guattari argue that it is the nomads’ capturing of the animal’s projective capacity that makes nomadic violence “durable,” we might suggest in the animal’s place that the extension of the possibility of violence in CPOF was a result of the system’s *temporality*, of its ongoing presence in the moment, and, importantly, of the affective “idea of the motor” – the ‘wandering eye’ – that results from this assemblage.<sup>472</sup> Similarly, and as discussed above, the spatiality of the system is akin to the nomad in being the spatiality of the intermezzo.

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<sup>470</sup> Deleuze et al., *A Thousand Plateaus*, 445 (emphasis added).

<sup>471</sup> For a discussion of the contrast between state violence and the war machine, see, Julian Reid, “Deleuze’s War Machine: Nomadism Against the State,” *Millennium: Journal of International Studies* 32, no. 1 (2002). See, also, Chapter One.

<sup>472</sup> Deleuze and Guattari discuss this aspect of the war machine when discussing the tendency for weapons toward *projection*:

Whereas in the hunt the hunter’s aim was to arrest the moment of wild animality ... what the warrior borrows from the [hunted] animal is more the idea of the motor than the model of the prey. He does not generalize the idea of the prey by applying it to the enemy; he abstracts the idea of the motor, applying it to himself.

Deleuze et al., *A Thousand Plateaus*, 437.

There are, of course, limitations to the creativity engendered by CPOF. The temporality of CPOF is partially dictated by rhythm. One cannot help but think of Lefebvre here, who argues that: “Space and time thus laid out make room ... for liberty. A little room. More of an illusion: dressage does not disappear.”<sup>473</sup> The narrative singularity of the system, the narrowness of the informational inputs, the continued exclusion of alternate enactments of the battlespace from the TOC, not to mention the CPOF, all continue to limit the open and creative potential of US military behaviour in Baghdad. CPOF may enable the upper echelons of command in 1<sup>st</sup> Cavalry to address multiple textures of the battlespace, but it renders those textures in particular ways, with consequences that can be as singularising as they are acknowledging of multiplicity. One of these consequences, for example, is the increased reach of upper command echelons into levels of the battlespace (or as the people who live in it would put it, into textures of the city) previously impervious to intentional intervention on the part of the military.

This chapter has demonstrated the multiplicity of battlespaces being enacted by 1<sup>st</sup> Cavalry in the city of Baghdad. It has also demonstrated that 1<sup>st</sup> Cavalry operationalise this multiplicity in order to more effectively address the situation in Iraq, which they conceive in complex and multiple terms. However, the complexity of their narrative is the singularising complexity of science, and the multiplicity they embrace is constrained by the power/knowledge/space and rhythm of the system. Nevertheless, using CPOF to navigate this multiplicity resulted in a particular mode of behaviour – an event-ful orientation to the battlespace – that *produced* new kinds of violence (rather as al-Qaeda’s embrace of a futural mode of living produced a patient, watchful, and painfully unpredictable mode of violence).

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<sup>473</sup> Henri Lefebvre, *Rhythmanalysis: Space, Time and Everyday Life* (London: Continuum, 1992), 40.

At this point we might return to Foucault and his concept of power/knowledge/space. Was 1<sup>st</sup> Cavalry remaking the city in the image of the complexity science that so inflects its narrative of the city? Knorr-Cetina makes this argument in relation to al-Qaeda:

A second distinction ... needs to be brought back into the picture here: that between a spatial arrangement where stability resides in fixed categories and traditions distanced from one another, and temporal processing that integrates things into a global stream. The natural history approach, according to Foucault and others, was a spatial arrangement of knowledge. Molecular biology (or an experimental stream within it) appears today to be a strongly globally integrated stream of processes superimposed on any remaining spatial logic. Al Qaeda distinguishes itself from all other terrorist groups that are nationally based by the appearance it gives of having become such a global stream.<sup>474</sup>

However, if it is possible to think of the correlation of the multiplicity of battlespaces within CPOF in these terms at all, then it is still an incomplete “globally integrated stream.” The viscosity of Liquid Information, the failures of its use, and, not least, the stubborn materiality of the city act against such an interpretation. Indeed, to argue that multiplicity is fully correlated, or that it can be fully operationalised for US military purposes, is to miss the point: if multiplicity could be fully correlated, then it would not be multiple anymore.

What we do see, however, is a way of arranging (a partial) multiplicity of battlespaces that created new modes of interacting with the battlespace, in addition to, alongside of, in contradiction to, other methods of interacting with the battlespace. This is but one story among many, albeit one that illustrates the experimental nature of the US military enterprise in Iraq. The following chapter will illustrate other facets

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<sup>474</sup> Knorr-Cetina, "The New Terrorist Societies," 230.

of this experimental quality of operation, this time in relation to the distribution of absence and presence.

## CHAPTER FIVE

### Being present in Baghdad



We need to hold onto the idea that the agent – the ‘actor’ or the ‘actor-network’ is an agent, a center, a planner, a designer, only to the extent that matters are also decentered, unplanned, undesigned. To put it more strongly, we need to understand that to make a center is to generate and to be generated by a noncenter, a distribution of the conditions of possibility that is both present and not present.<sup>475</sup>

Figure 14. 1<sup>st</sup> Cavalry ('First Team') crest. (Courtesy of 1<sup>st</sup> Cavalry Division, <http://www.hood.army.mil/1stcavdiv/>)

#### Introduction: absence and presence in the contemporary battlespace

The previous chapter explored how 1<sup>st</sup> Cavalry turned its face to multiple battlespaces in a novel and experimental way during its engagement in OIF II. This

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<sup>475</sup> John Law, *Aircraft Stories: Decentering the Object in Technoscience* (Durham NC: Duke University Press, 2002), 112-13.

chapter explores a different texture of the spatial operation of violence. Rather than looking at how 1<sup>st</sup> Cavalry engaged 'the battlespace' as a (multiple) whole, this chapter explores the spatial relations of absence and presence in which a given military unit is implicated. Points of presence, and not planes of space, form the subject of this chapter's inquiry.

Specifically, this chapter asks: What does it mean for a unit to be 'here' and not 'there'? As suggested in Chapter Two, the answers to this question may seem straightforward. As Callon and Law note:

In common sense it is obvious: an object or a person is either here or there, and not in two places at the same time. Hard on the heels of this first self-evidence comes a second, the idea that if things are not chaotic then this is because they are contained within something larger, a whole. In which case, complex though it might be, there is indeed an order. Things are somewhere, and some are bigger than others.<sup>476</sup>

However, as noted in the previous chapters, those truths are far from self-evident – tactical levels were not contained within the strategic, complex systems did not add up, and this chapter will show that being here and not there is not straightforward either. Indeed, asking these questions opens up a host of practical and pressing concerns for the US military, whose own intellectual engagement with the information and communication technology (ICT) revolution has seen an attempt to re-engineer their modes of absence and presence in order to move beyond traditional spatialities of military endeavour such as the massing of force and the movement of manoeuvre.<sup>477</sup> This chapter explores a different texture of 1<sup>st</sup> Cavalry's engagement in Baghdad, one which again exposes both the 1<sup>st</sup> Cavalry's attempt to operationalise an

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<sup>476</sup> Michel Callon and John Law, "Absence-Presence, Circulation, and Encountering in Complex Space," *Environment and Planning D: Society and Space* 22, no. 1 (2004): 3.

<sup>477</sup> See, in particular, John Arquilla and David Ronfeldt, *Swarming and the Future of Conflict* (Santa Monica, CA: RAND Corporation, 2000).

alternative real (here, a real with complicated relations of absence and presence), and the continual disruption of 1<sup>st</sup> Cavalry's orderings by those relations.<sup>478</sup>

The idea that the opportunities for 'virtual' presence offered by ICTs might disrupt the traditional orderings of near and far, here and there, absent and present, and so on has not been limited to the military field of endeavour. Geographers of all stripes have attempted to theorise the implications of the ICT revolution in terms of the disruption it poses to the spatial orderings that underpin our society. Stephen Graham, for example, locates at least three schools of thought regarding how virtual presence in ICTs impacts on traditional relations of absence and presence. Firstly, he identifies what he terms a discourse of "substitution and transcendence," by which presence in the medium of an ICT can be taken as negating the necessity (or undermining the possibility, depending on the author's ideological bent) of relations of 'physical' presence.<sup>479</sup> Absence and presence are reconfigured in this discourse solely through the medium of electronic connection. According to this discourse, the complicated everyday relations of absence and presence in the 'real world' lose their meaning in virtual space (being 'here' in Adelaide is unimportant when one is also 'here' on MySpace.com).

Secondly, Graham identifies a strong trend against this simplified understanding of the implication of virtual presence, with more recent work aiming to understand:

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<sup>478</sup> Importantly, whereas the past chapter relied very strongly on a narrative voice of ethnography (1<sup>st</sup> Cavalry did this or that in this circumstance when using CPOF), this chapter is more generic in its phrasing. It performs an analysis that is closer to Mol's description of a praxiography that relies on the "materials and methods section of scientific articles." This chapter brings together the many materials and methods used to keep units present, discussing the interactions and interferences that are kept strictly invisible at the pointy end of practice (logistics chains, for example, are excluded from the TOC). See, Annemarie Mol, *The Body Multiple: Ontology in Medical Practice* (Durham: Duke University Press, 2002), 158 (emphasis added).

<sup>479</sup> Stephen Graham, "The End of Geography or the Explosion of Place? Conceptualizing Space, Place and Information Technology," *Progress in Human Geography* 22, no. 2 (1998): 167.

... how the social production of electronic networks and 'spaces' *co-evolves* with the production of material spaces and places, within the same broad societal trends and social processes.<sup>480</sup>

This discourse emphasises the way in which virtual presence can mimic and inflect more traditional configurations of absence and presence. This body of work often discusses the highly uneven dynamics of ICT infrastructure development, with privileged enclaves of society (certain networked suburbs of a city, for example) able to exploit the advantages proffered by virtual presence in the pursuit of enterprises (particularly economic activities) which have profound impacts on the way in which people carry out their everyday lives. It could be said that in this understanding, virtual presence and absence are another way of transmitting the spatial orderings that dominate our society.

Finally, Graham identifies the response made by Actor-Network Theory (ANT) and material semiotics to the impact of virtual presence. Here, while acknowledging the importance of the claims of the second strand of thought, the emphasis is on socio-technical hybrids which stress the:

... multiple, contingent worlds of social action, underlining the difficulties involved in achieving social ordering 'at a distance' through enrolling complex arrays of technological artifacts. In it, humans emerge as more than just subjects whose lives are to be 'impacted'; as more than bit-players within macrolevels of global structural change.<sup>481</sup>

Virtual presence and absence here are seen as being (only a) part of the highly complicated and emergent spatial assemblages in which, and through which, a slippery and uncertain real is produced. This thesis tends toward the third understanding of the nature of virtual presence as enabled by ICTs, and the main body of this chapter explores some of the ways in which virtual presence disrupts and reorders the spatialising practices of violence.

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<sup>480</sup> Graham, "The End of Geography?", 171 (emphasis original).

<sup>481</sup> Graham, "The End of Geography?", 180.

Issues of absence and presence, virtual or otherwise, are also of primary concern to the US military, which must constantly address practical questions regarding what it means to be 'here' in the everyday life of its operation as a complicated, multifaceted organisation operating in a complex, difficult environment such as Baghdad. Command and control, for example, is always a difficult and contingent process of making the absent commander 'present' to the unit in the battlespace, allowing him to guide and shape events that he cannot physically see and in which he cannot physically participate.

Recent military theorising has suggested that the vastly increased networking capacities of the US military might enable entirely new forms of configuring absence and presence, radically altering the spatial operation of violence. For example, some theorists advocate the use of networking technology to enable 'swarming.' Swarming is promoted by its advocates as an alternative to the clearly defined relations of absence and presence in more traditional military configurations. In particular, swarming is distinguished from the massing of forces, where relations of absence and presence are defined in terms of whether a unit is physically present in a demarcated area, and from manoeuvre warfare, where the mobility of the army demands that a unit's militarily effective presence be determined by a fixed relation to other, more distant, units (for example, present on the left flank, in front, or behind, other units).<sup>482</sup>

Swarming introduces a flickering relation of absence and presence, whereby a unit is 'here' for the purpose of attacking the enemy, but then, (almost?)

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<sup>482</sup> See, Arquilla et al., *Swarming and the Future of Conflict*, Chapter 1.

simultaneously, ‘not here’ for the purpose of evading attack. Arquilla and Ronfeldt put it this way:

[Swarming is] the systematic pulsing of force and/or fire by dispersed, internetworked units, so as to strike the adversary from all directions simultaneously. This does not necessitate surrounding the enemy, though swarming may include encirclement in some cases. Rather emphasis is placed on *forces and fires that can strike at will – wherever they will.*<sup>483</sup>

Absence and presence, then, are not in fixed relation with anything in particular – with either friendly troops, or the enemy, or a particular piece of land. Rather, this approach to war is about configuring absence and presence so that a military force can be ‘virtually’ present anywhere, even if it is only ‘physically’ present in a series of discrete unit locations. The key to enabling such flickering relations of absence is both the extreme mobility of units and their ability to communicate with one another, allowing coordination of effort without the massing of force. While the more extreme predictions of Arquilla and Ronfeldt and their intellectual brethren – including images of a battlespace crawling with semi-autonomous robots swarming like bees on enemy forces – are far from reality, let alone far from being part of mainstream contemporary military doctrine, nonetheless swarming serves as a useful reminder that the military is mindful of rethinking issues of absence and presence as highly practical and significant for the purpose of winning battles.

Following the general methodological impetus of this thesis, this chapter explores how CPOF inscribes a unit in a series of relations of absence and presence that have significant consequences – both intended and unintended – for the behaviour of that unit. This example illustrates that attempts to exclude (to make absent) certain aspects of a unit from meaningful presence in the battlespace are often unsuccessful, and that, conversely, the success of making a unit present in the

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<sup>483</sup> Arquilla et al., *Swarming and the Future of Conflict*, 8-9 (emphasis added).

battlespace for the purpose of command is always a contingent and reversible achievement. It also illustrates how agency emerges through practice in the battlespace, and explores the US military's attempts to self-consciously re-engineer the scope of a unit's agency in response to the elusive and sometimes haunting relations of absence and presence in which a unit in CPOF exists. The previous chapter articulated a texture of CPOF where the behaviour of the CPOF user was key in correlating 1<sup>st</sup> Cavalry's engagement in multiple aspects (and at multiple levels) of the battlespace. This chapter, however, interrogates a different texture of the battlespace, one which explores how (in what ways) the 'unit-in-CPOF' is present in the battlespace in the first place. This opens out a series of insights into the unpredictable and experimental spatial operation of violence in Baghdad.<sup>484</sup>

Throughout this chapter it will become apparent that it is difficult, and no doubt undesirable, to distinguish too firmly between conventional understandings of absence and presence as being physically 'here' or physically 'there,' and the more fluid and/or multifaceted notions of absence and presence proposed by the study of material semiotics (of which the 'virtual' presence created when using ICTs is just one). In particular, it is argued that there are a number of different ways for a unit to be meaningfully present, many of which are acknowledged by apparently conventional organisations such as the military – and some of which form part of their openly stated ambitions for reconfiguring the real according to their need for victory. In this, then, this chapter continues the previous chapter's theme of the US

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<sup>484</sup> The 'unit-in-CPOF' is by no means the only centre of presence on the multiple maps of CPOF as explored in the previous chapter, but is a manageable point of interrogation for understanding how CPOF is implicated in distributing absence and presence in the battlespace. In fact, it is possible to view each of the multiple maps explored in the previous chapter as a point of presence. However, as discussed in Chapter Two, exploring things in one register often precludes their exploration in another, and as a result the previous chapter focused not on what multiple maps excluded, but how they related to each other. The spatial operation of violence in Baghdad emerges from the overlapping (pinboard effect) of all of these textures coming together to form a messy and imperfectly realised world.

military attempting to operationalise the more fluid, textured account of the world outlined in Chapter Two.

### **Actualising a unit in the military: the *enaction of presence***

The epigraph to this chapter suggests that all acts of centring, of present-ing, of making something be 'here' and not there, *generate and are generated by* a distribution of potentialities, virtualities, or conditions of possibility that are not present, are not here, or are necessarily excluded in this particular 'act-ualisation.'<sup>485</sup>

In his work, John Law suggests a number of ways in which 'centres' are always/already implicated in/generated by non-centres, identifying a number of textures and registers in which this process of centring/decentring takes place. For example, in *Aircraft Stories*, Law identifies how the 'centre' that is a written formula used to calculate the wing design of an aircraft is also a decentring of a number of different conditions of possibility. These range from the exclusion of the material networks required to formulate and maintain the validity of the expression, to the Othering of the fear of the Soviet Union that prompted the design of the aircraft in the first place.<sup>486</sup> In later pieces, Law emphasises the way in which these different kinds of absences are held in different *kinds* of relation to the presence (from the fixed patterns of networked relation to the flickering behaviour of the return of the excluded).<sup>487</sup>

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<sup>485</sup> Act-ualisation because each actualisation is an act, an achievement, and not simply a pre-existing condition.

<sup>486</sup> See, Law, *Aircraft Stories*, Chapter Five.

<sup>487</sup> See, in particular, John Law and Annemarie Mol, "Situating Technoscience: An Inquiry Into Spatialities," *Environment and Planning D: Society and Space* 19 (2001); John Law, "And if the Global Were Small and Noncoherent? Method, Complexity, and the Baroque," *Environment and Planning D: Society and Space* 22, no. 1 (2004).

This section describes a similar process by which a unit is ‘centred’ in CPOF. Unlike the previous chapter, which explores the role of CPOF in producing an actionable world out of multiple battlespaces, this chapter does not attempt to draw boundaries between the world ‘in CPOF’ and the world ‘outside CPOF.’ The previous chapter utilises the work of Karin Knorr-Cetina on the flow architecture of financial markets, which emphasises the role the computer system plays as an *interface*. This analysis provides a useful perspective for understanding how users utilised CPOF as a tool of *correlation* (loosely, coordination) for addressing multiple aspects of the battlespace.<sup>488</sup> This chapter, however, examines a different texture of CPOF use, one which turns its attention from the question of what happens where multiple battlespaces meet (a question of boundaries and plane surfaces) to how something in the battlespace becomes present at all. This has the result of focusing attention away from fixed *boundaries* (the screen as interface) toward *points* (and their accompanying field of formation).<sup>489</sup> This moves attention toward the relation between the centre and the non-centre, the relation between the absent and the present. As a result, the boundary between the screen and the world ‘out there’ loses its significance as an analytical tool for the purposes of this chapter.

To enable the discussion of points of presence in the battlespace, this chapter begins with a discussion of the importance of ‘naming’ units to a successful command process, before proceeding to a technical description of the process by which units are

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<sup>488</sup> See, in particular, Knorr-Cetina’s discussion of the screen:

As an omnipresent complex ‘Other’, the market on screen takes on a presence and profile in its own right with its own self-assembling and self-integrating features ... , its own calculating routines ... , and self-historicizing properties ... . *The electronic programs and circuits which underlie this screen world assemble and implement on one platform the previously dispersed activities of different agents; of brokers and bookkeepers, of market-makers (traders) and analysts, of researchers and news agents.* In this sense, the screen is a building site on which a whole economic and epistemological world is erected. It is not simply a ‘medium’ for the transmission of pre-reflexive interactions.

Karin Knorr-Cetina, “From Pipes to Scopes: The Flow Architecture of Financial Markets,” *Distinktion: The Scandinavian Journal of Social Theory* 7 (2003): 13 (emphasis added).

<sup>489</sup> For a discussion of the textures and complexities of boundaries, see, Annemarie Mol and John Law, “Boundary Variations: An Introduction,” *Environment and Planning D* 23, no. 5 (2005).

‘named’ as icons on the CPOF screen. It concludes by exploring the different kinds of relations of absence and presence that are brought about by this naming.

### Making a unit present through naming

The point of presence under investigation in this chapter is the unit. As defined by the Department of Defense, a unit is:

1. Any military element whose structure is prescribed by competent authority, such as a table of organization and equipment; specifically, part of an organization.<sup>490</sup>

Tables of organisation & equipment (TOEs), in turn, are used to describe the ‘go to war’ components of the military, prescribing their normal mission, organisational structure, and personnel and equipment requirements.<sup>491</sup> So, according to the military, a unit exists when it can meet these definitional elements: purpose, structure, and content.

Figure 15, for example, shows an excerpt from a TOE describing the constitution of the company responsible for running a Brigade. Note the way in which the table listing ‘equipment’ draws no distinction between personnel and equipment (an Automatic Chemical Agent Alarm is ‘ontologically equal’ to a Chemical Operations Sergeant). In a TOE, a unit is an amalgam of human and technological components, brought together within a prescribed context of mission and structure. It has certain capabilities (including, for example, the defence of the post in the event of attack by all personnel except the chaplain), certain responsibilities, certain dimensions (35,494 pounds and 2,933 cubic feet), and certain relationships with other units. (Here, note, certain can mean both ‘particular’ and ‘fixed.’)

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<sup>490</sup> Director for Operational Plans and Joint Force Development, *Department of Defense Dictionary of Military and Associated Terms* (Washington, DC: Department of Defense, 2002), 461.

<sup>491</sup> Globalsecurity.org, “Table of Organization and Equipment (TOE)” (n.d.), <http://www.globalsecurity.org/military/agency/army/toe.htm>.

**TOE 87042C100/20/ HEADQUARTERS AND HEADQUARTERS COMPANY, BRIGADE**  
 DESIGNATION: 87042L100 HEADQUARTERS, \_\_\_\_ BRIGADE, \_\_\_\_ ARMORED DIVISION

...

**1. MISSION.**

THE HEADQUARTERS PROVIDES COMMAND, CONTROL AND SUPERVISION OF THE TACTICAL OPERATIONS OF THE BRIGADE AND ATTACHED UNITS. THE HEADQUARTERS COMPANY PROVIDES UNIT ADMINISTRATION AND LOGISTICAL SUPPORT FOR THE BRIGADE STAFF SECTIONS.

**2. ASSIGNMENT.** ORGANIC TO A HEAVY DIVISION, TOE 87000L.

**3. CAPABILITIES.**

A. AT LEVEL 1, THIS UNIT:

- (1) COMMANDS ATTACHED ELEMENTS OF THE DIVISION'S COMBAT AND COMBAT SUPPORT ELEMENTS IN OFFENSIVE AND DEFENSIVE COMBAT OPERATIONS.
- (2) ACCEPTS OR RELEASES ATTACHED ELEMENTS ON SHORT NOTICE.
- (3) CONDUCTS BRIGADE OPERATIONS ON SUSTAINED 24-HOUR A DAY BASIS.
- (4) SUPERVISES THE MOVEMENT AND SECURITY OF ATTACHED OR SUPPORTING ADMINISTRATIVE ELEMENTS.
- (5) CAN BE DESIGNATED TO ACT AS EMERGENCY SUCCESSOR OPERATIONAL HEADQUARTERS FOR THE DIVISION IN THE EVENT OF DESTRUCTION OR NEUTRALIZATION OF DIVISION COMMAND AND CONTROL CAPABILITIES.
- (6) PROVIDES OPERATIONAL CONTROL OF UP TO FIVE MANEUVER BATTALIONS ON A SUSTAINED BASIS. CAN CONTROL UP TO SEVEN MANEUVER BATTALIONS FOR A SHORT PERIOD OF TIME NOT TO EXCEED 24 HOURS.
- (7) PROVIDES FOOD SERVICE SUPPORT FOR ASSIGNED AND SUPPORTING PERSONNEL FROM THE DIVISIONAL MI BATTALION, SIGNAL BATTALION AND CHEMICAL COMPANY IN 87042L100/200. PROVIDES FOOD SERVICE SUPPORT FOR ASSIGNED AND SUPPORTING PERSONNEL FROM THE DIVISIONAL MI BATTALION, SIGNAL BATTALION, CHEMICAL COMPANY, AND BRIGADE RECONNAISSANCE TROOP (17087F000) IN 87042L300/400.

...

E. INDIVIDUALS OF THIS ORGANIZATION, EXCEPT THE CHAPLAIN, CAN ASSIST IN THE COORDINATED DEFENSE OF THE UNIT AREA OR INSTALLATION.

F. THIS UNIT PERFORMS UNIT MAINTENANCE ON ORGANIC EQUIPMENT IN 87042L100/200. AND PERFORMS UNIT MAINTENANCE ON ORGANIC EQUIPMENT AND EQUIPMENT ORGANIC TO THE BRIGADE RECONNAISSANCE TROOP (17087F000) IN 87042L300/400.

G. THIS UNIT IS DEPENDENT ON:

- (1) APPROPRIATE ELEMENTS OF THE DIVISION OR CORPS FOR COMBAT HEALTH SUPPORT, LEGAL, FINANCE, AND PERSONNEL AND ADMINISTRATIVE SERVICES.
- (2) GENERAL SUPPORT AVIATION BATTALION, TOE 01305A, FOR COMMAND AND RECONNAISSANCE HELICOPTER SUPPORT.

**4. BASIS OF ALLOCATION.**

- A. TWO ARMORED BDE, HHC, TOE 87042L100 OR 87042L300 AND ONE INFANTRY (MECHANIZED) BDE, HHC, TOE 87042L200 OR 87042L400 PER ARMORED DIVISION, TOE 87000L100.
- B. TWO INFANTRY (MECHANIZED) BDE, HHC, TOE 87042L200 OR 87042L400 AND ONE ARMORED BDE, HHC, TOE 87042L100 OR 87042L300 PER INFANTRY DIVISION (MECHANIZED) TOE 87000L200.

**5. CATEGORY.** THIS UNIT IS DESIGNATED A CATEGORY I UNIT. ...

**6. MOBILITY.**

- A. THIS UNIT IS CAPABLE OF TRANSPORTING 71,320 POUNDS (3,800 CUBIC FEET) OF TOE EQUIPMENT WITH ORGANIC VEHICLES.
- B. THIS UNIT HAS 35,494 POUNDS (2,933 CUBIC FEET) OF TOE EQUIPMENT REQUIRING TRANSPORTATION.
- C. THIS UNIT REQUIRES 100% OF ITS TOE EQUIPMENT AND SUPPLIES TO BE TRANSPORTED IN A SINGLE LIFT USING ITS AUTHORIZED ORGANIC VEHICLES. (SOURCE: FM 71-3)

**7. DOCTRINE.** THE FOLLOWING DOCTRINAL PUBLICATIONS ARE APPLICABLE TO THE OPERATION OF THIS UNIT:

FM 71-2, TANK AND MECHANIZED INFANTRY BATTALION TASK FORCE. ...

...

PAR	GR	MOSLN	SDTER	ASIS	REMARKS	ABBREVIATION
01	E6	54B30	GAZ			CHEMICAL OPS SGT
01	E6	96B30	AAY		01 04	INTELLIGENCE SGT
...						
01	E4	31C10	CRX			RADIO OPR-MAINTAINER
01		A32355	B			ALARM CML AGENT AUTO
...						
01		A72260	A			ANTENNA RC-292
...						

**FIGURE 15. Excerpts from a Table of Organization and Equipment (TOE) for a Brigade HQ Company, Armored Division.** (Adapted from GlobalSecurity.org, "TOE 87042C100/200," (no date) <http://www.globalsecurity.org/military/library/policy/army/toe/87042L100.htm>).

Yet it would be naïve in the extreme to assume that this is actually a sufficient description of how a unit is constituted in the Army. As it happens, shortages of both personnel and equipment regularly occur, and the inevitable working of human relationships can form shadow command structures and sideways networks, undermining the prescribed structure of the unit. The 'battle captain,' for example, is not a position described in any TOE, yet it is central to understanding the working of a company such as this, acting as a focus point between the commander and his subordinate staff. Units, therefore, exist despite varying from their constituting TOEs – often to quite a substantial degree.

There is an echo here of Mol and Law's discussion of the Zimbabwean bush pump, which changes shape from place to place and yet continues to 'work' as a bush pump, despite, or, as Mol and Law argue, *because* of varying criteria for success, varying configurations of the pump within social systems, and the varying construction of the pump itself.

There is a sameness, a shape constancy, which does not depend on any particular defining feature or relationship, but rather on the existence of many instances which overlap with one another partially.<sup>492</sup>

Units in the US Army are made present through their *resemblance* to TOEs (and, implicitly, other units so constituted), but not through their *identical* coexistence.

This, however, poses a problem for the US Army. For units to be able to be placed into relation with one another, to be commanded, to be moved, indeed to act, they need to have at least a partially *known* existence within the Army.<sup>493</sup> With 4,451

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<sup>492</sup> Law et al., "Situating Technoscience," 614.

<sup>493</sup> Van Creveld, for example, emphasises the absolute importance in command of "gathering information on the state of one's own forces – a problem that should not be underestimated . . ." Martin

individual combat units in the Army (including the Army Reserve and National Guard), all no doubt varying from their prescribed TOE in one way or another, it is impossible to plan actions on the basis of knowledge of each individual unit.<sup>494</sup> So, rather than acknowledging variance, the Army makes a place for this fluidity through the convenient ‘fudge’ of *naming* units. By naming a unit *as* a particular kind of unit, its fluidity is covered over, and it is possible for the unit to act *as* a unit within the Army structure without having to account, each time it acts, for the presence of the entire contents and structure prescribed by the TOE. This is not to say that this fluidity can be effaced entirely: without sufficient similarity to the TOE, a unit simply cannot function as intended (if there are no radios working at all, for example, due either to an absence of radios or perhaps no ‘Radio Opr-Maintainer,’ then there is no possibility for the Brigade HQ company to exercise command over absent troops, unless a workaround can be found).<sup>495</sup> However, slippage can often be effaced for the purposes of Army action by simply ignoring it. It is possible, for example, to treat all platoons as though they were identical and therefore equal in capability, simply by requiring that all things that resemble platoons be named as platoons by relevant people (those who stand in relation to the platoon) and things (signs outside a barracks or a command post, for example).

Naming is a complicated process. In addition to names that indicate the ‘kind’ of unit, units have specific identifiers – and often, nicknames and special crests that indicate the individual identity of the particular unit as well. 1<sup>st</sup> Cavalry, for example, is not only a heavy-armoured Division within the meaning of the relevant TOE, but is

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van Creveld, *Command in War* (Cambridge, MA: Harvard University Press, 1985), 7. This is a rather Foucauldian assessment of the problem of first knowing oneself.

<sup>494</sup> See, GlobalSecurity.org, "Table of Organization and Equipment (TOE)".

<sup>495</sup> Workarounds are another important way in which the Army fudges the fluidity of ‘the unit’ as defined. They are also much despised by Army hierarchies, which view them as complicating and ultimately inefficient.

also called the First Team, and membership of the Division gives soldiers the right to wear the arm patch (Figure 14) and to participate in associated 1<sup>st</sup> Cavalry behaviour (including the rather disconcerting habit of greeting each other by shouting 'First Team!'). Hence, while names can be used to efface difference, as when the standard qualifier 'Brigade' is attached, names can also be used to create difference.

Fifth Brigade "Red Team" in 1<sup>st</sup> Cavalry is an interesting example in this regard, being formed from a patchwork assemblage of different units, and kept in an unconventional command arrangement due to short-staffing and lack of funding.<sup>496</sup> Nevertheless, it was *named* as a Brigade and treated by those outside and inside it as though it had the capabilities prescribed in the Brigade TOE. As a result of its unusual constitution, however, interviewees sometimes suggested that, despite a seeming equality of capability, there was a serious deficiency of competency in their operations in OIF II. Here, covering over difference by calling all things that roughly come close to constituting the TOE of 'a Brigade' had the paradoxical result of creating a difference in quality rather than kind. All of this indicates that making a unit present is more than simply meeting a TOE requirement – it also includes naming it a unit, which can in turn efface some differences but create others.

In the Army, naming a unit takes place over and over again. Through the arm patch worn by unit members, through the ritual behaviours that identify soldiers as members of the group, and through the material infrastructure that identifies *this* as a particular unit, and *that* as a different unit (street signs, for example, that point to a particular unit's headquarters), in all of these ways a unit is continuously re-named, and in the process, continuously re-enacted as a unit, as a militarily relevant agent.

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<sup>496</sup> 5<sup>th</sup> Brigade has since been inactivated, and its attached units redeployed within the Division. See, GlobalSecurity.org, "5th Brigade Combat Team 'Red Team'" (2005), <http://www.globalsecurity.org/military/agency/army/1cd-5bde.htm>.

This enactment is a *making present* of the unit and is an uncertain, difficult and contingent process. For example, when a unit moves from the homefront to a war zone, it is loaded onto ships in the continental United States and taken to the theatre of combat. But when the people disembark, when the equipment is unloaded and so on, there is a doctrinally prescribed period during which the unsettled configuration of relations that form the unit are stabilised through training and acclimatisation exercises. Often this involves training exercises outside of the immediate theatre of war, perhaps in a neighbouring country.<sup>497</sup> That is, after the highly disruptive process of dismantling and transport the unit, it has to be reconstituted before it can act as a unit.

Recognising the necessity of this continual process of naming is simply another way of stating the point made in Chapter Two that thing-ness, agency, and subjectivity emerge in practice, through enactment.<sup>498</sup> It is the contention of this chapter that each time a unit is *named*, the unit is enacted in a particular way, actualising the unit as a set of competencies and capabilities that are generated by the “distribution of the conditions of possibility” to which Law refers (and therefore keeping other competencies and capabilities ‘un-actualised,’ or virtual).<sup>499</sup> It is further the contention of this chapter that, despite the best intentions of the US military as an organisation, such naming never enacts precisely the unit it thinks it is enacting, with the distributed conditions of possibility continually interfering with, and slipping

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<sup>497</sup> Anthony Swofford, for example, describes how nearly the entirety of his deployment for Operation Desert Storm was made up of such exercises in neighbouring Saudi Arabia. Anthony Swofford, *Jarhead: A Soldier's Story of Modern War* (London: Scribner, 2003).

<sup>498</sup> See, in particular, 101-104.

<sup>499</sup> There are, of course, other ways of enacting a unit that do not involve naming it. However, the focus of this chapter is on a case which relies on enacting a unit as named, largely because this is often the starting point for enacting a unit in official Army procedures.

beyond, the control of the military.<sup>500</sup> This is a particularly important point, as units are named and enacted for the purpose of creating *militarily effective agency*.

Uncontrollable and experimental qualities of violence, therefore, may well be explicable at least partly with reference to the slipperiness of this naming process.

This chapter explores the enactment of a unit at one particular moment, identifying how a unit is made present in a particular circumstance, those things made deliberately absent during this process, the potentialities of being for that unit which are excluded by this presence but nevertheless continually interfere with its enactment, and so on. In other words, this chapter explores what it means for a unit to be present here, in CPOF, and what this means a unit can do in terms of the spatialising practices of violence.

#### Naming a unit-in-CPOF: iconography and presence

For the purposes of command and control, naming a unit is particularly vital to enable the positioning of that unit within the military effort. More traditional methods of command and control (particularly in the last century) have utilised the positioning of military symbols on paper maps to make units present to the commander. Symbols were positioned according to assumptions made by planners, who extrapolated from knowledge of a unit's mobile capabilities and the instructions they had been given to come up with provisional locations. They were also positioned on the basis of knowledge garnered from radio communications updating unit locations (either as a result of a direct inquiry via radio or from the passive

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<sup>500</sup> In fact, and with reference to the previous chapter, it is obvious that the US Army never acts in a single capacity and with a single intent to enact the unit at all. Rather, it would be closer to the truth to say that there is a multiplicity of units being enacted by a multiplicity of US Armies. Nonetheless, and as stated previously, this chapter is focused less on multiplicity and more on single points of enactment, and so this multiplicity must be effaced for the purposes of the narrative of the chapter.

monitoring of radio communications between all levels of the force). In either case, however, locating units via radio was a slow and cumbersome process, pulling together only a piecemeal picture of the battlefield.<sup>501</sup>

In CPOF, naming units is an automated process that operates to locate them in real time. Tracked via a GPS emitter in ‘real’ space and ‘real’ time, units are present in CPOF in a manner that is unprecedented in the history of warfare: (mostly) they are made present where and when they ‘really’ are. We have already seen in the previous chapter the limitations of the geographic base (the map that locates where the unit ‘really’ is) that forms the background in CPOF. For the moment, however, let us turn aside considerations of that base and think instead of the icon formed on it. How is that icon located, made present, in the commander’s battlespace? The answer is to be found in the Blue Force Tracker/Force XXI Battle Command, Brigade and Below (BFT/FBCB2).<sup>502</sup>

It begins with a GPS emitter that is installed on tactical vehicles, weapons platforms, and aviation platforms. For 1<sup>st</sup> Cavalry, BFT/FBCB2 was primarily installed on Abrams tanks (usually as part of the M1A2 SEP upgrade) and Bradley Fighting Vehicles (usually as part of the M2A3 upgrade). 1<sup>st</sup> Brigade, for example, had two armoured battalions, each with 44 BFT/FBCB2 equipped Abrams tanks, and

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<sup>501</sup> To give a sense of the scale of arrangements required to locate units via radio, it is useful to consider the US military in World War II. Here, the mobility of troops in the western European theatre led to the development of the Signal Information and Monitoring Company (SIAM), containing about 500 men, whose job was to monitor all radio communications in order to track blue forces (as well as maintain the security of radio networks). Working at the Division/Corps level, SIAM was a “useful tool for the field commander” in bypassing normal, slower command channels to gain a sense of units’ locations on the battlefield, but was nonetheless far from an organic component of the command structure capable of providing real-time information as required. John Patrick Finnegan, *Army Lineage Series: Military Intelligence* (Washington, DC: Center of Military History, US Army, 1998), 89.

<sup>502</sup> The difference between BFT and FBCB2 is related to the level of security achieved in the transmission and reception of the signal. Operating on L-Band, FBCB2 is the more secure version of the system. See, Figure 8.

one mechanised infantry battalion equipped with 44 BFT/FBCB2 capable Bradley Fighting Vehicles.<sup>503</sup> Each of these battalions was divided into three companies, divided in turn into three platoons, each equipped with four of the major fighting platforms (either the Abrams tank or BFV).<sup>504</sup>

The signal from any given platform, shown in the bottom left corner of Figure 16, is routed through an L-Band transceiver before passing through a complicated array of hardware and software and being received back in the FBCB2, where it emerges as an icon on a screen, located according to GPS coordinates on maps that have been standardised according to GPS locations.<sup>505</sup>

Despite its complexity, Figure 16 is an oversimplification of the entire BFT/FBCB2 process. This chapter will primarily focus on only one step that is elided.

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<sup>503</sup> It is worth noting that the deployment of BFT/FBCB2 is at once an ad hoc process in response to deployment orders to OIF, and also a part of the continuing modernisation of 1<sup>st</sup> Cavalry as part of the Army's Force XXI process. First Brigade is used as an example here because its story holds the most 'regular' or even deployment of the technology, being the earliest recipient of the full upgrade packages and the only Brigade to receive them in full prior to the decision to invade Iraq. GlobalSecurity.org, "1<sup>st</sup> Brigade (Iron Horse) - 1<sup>st</sup> Cavalry Division" (2005), <http://www.globalsecurity.org/military/agency/army/1cd-1bde.htm>; Cavalry OutPost, "Force XXI: The Challenge of a New Century" (Cavalry OutPost Publications, 2005), [http://www.first-team.us/journals/forcexxi/chapt\\_15.html](http://www.first-team.us/journals/forcexxi/chapt_15.html).

<sup>504</sup> The seeming mismatch in numbers of major fighting vehicles here (three platoons per company at four tanks/BFVs each, with three companies per Battalion, gives 36 tanks/BFVs per Battalion) can be accounted for by the fighting vehicles utilised for C2 at each level of command, giving a total of 44 tanks/BFVs per Battalion. See, Federation of American Scientists, "US Army Table of Organization" (Federation of American Scientists, 2000), <http://www.fas.org/man/dod-101/army/unit/toe/toenum.htm>.

<sup>505</sup> This process of standardising maps so that GPS coordinates can be located on top of them is more complicated and controversial than might be thought. See, for example, the controversies that raged inside the US military regarding even the most fundamental of questions of cartography, such as how to determine the shape of the earth. Deborah J. Warner, "Political Geodesy: The Army, the Air Force, and the World Geodetic System of 1960," *Annals of Science* 59, no. 4 (2002); John Cloud, "Imaging the World in a Barrel: Corona and the Clandestine Convergence of the Earth Sciences," *Social Studies of Science* 31, no. 2 (2001); John Cloud, "American Cartographic Transformations During the Cold War," *Cartography and Geographic Information Science* 29, no. 3 (2002).

The transposition of an emission signal into an icon is an *act of naming* worthy of consideration, and performs a similar function in making a unit, or, here, a platform, 'present' as the acts of naming described briefly above. It is the purpose of this chapter to explore how this naming of a platform (and/or unit) through the iconography of CPOF performs these platforms (and/or units) as 'centres' of presence, while excluding other possibilities in the actualisation of that platform.

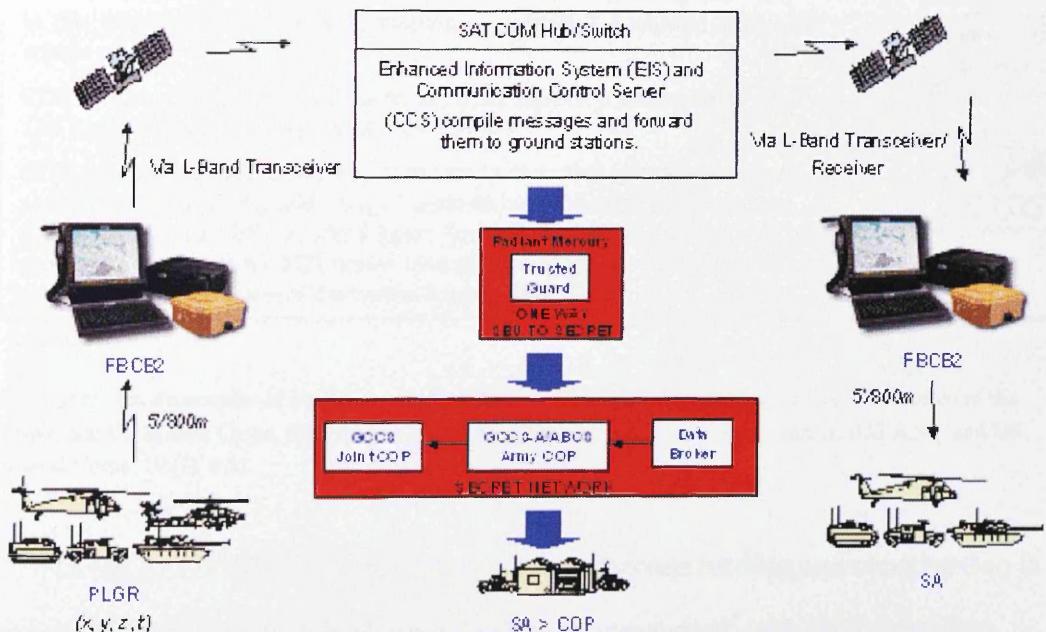


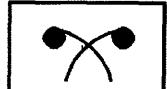
FIGURE 16. Diagram illustrating the communication links required to enable FBCB2. [Office of Force Transformation (OFT), *A Network-Centric Operation Case Study: US/UK Coalition Combat Operations During Operation Iraqi Freedom*, (Washington, DC: Office of Secretary of Defense, 2005), 3-7]

Military symbols are constructed according to a series of logical and progressive rules. Constructing a symbol involves starting at the beginning of a series of rules and using them to add to the symbol until all facets of an entity (capable of description through the rules) have been described (see Figure 17). Emphasis is laid on features such as: the basic function of a unit (that is, infantry, reconnaissance, armor, and so on); its size (platoon, company, battalion, and so on); particular kinds of equipment present; whether the unit in question is reinforced or reduced from its TOE

capability; the level of command at which this unit is operating; direction of travel; and the unit's speed.

As an example, we will build the symbol for a friendly nuclear, biological, or chemical (NBC) reconnaissance unit equipped with the FOX and M21 long-range sensor.

STEP 1. First choose the frame (friendly) and graphic for the basic function or branch of the unit, labeling field "A." In this example, the basic function is NBC.



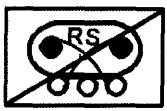
STEP 2. Choose the graphic modifier for the secondary function or capability, labeling field "A<sub>1</sub>," (possibly from the list of modifiers). In this example, the secondary function and first modifier is reconnaissance.



STEP 3. Choose the graphic modifier for the next capability, labeling field "A<sub>2</sub>." In this example, the tertiary (third function or capability) is wheeled armored vehicle.



STEP 4. Choose the graphic modifier for any other capability, labeling field "A<sub>3</sub>." This example requires no more graphic modifiers.



STEP 5. If necessary to fully distinguish the unit from another type of unit, include a text abbreviation, labeling field "A<sub>TEXT</sub>," inside the symbol frame. In this example, a text abbreviation "RS" is added inside the symbol to show that this unit is specially equipped with the M21 sensor. Unit size indicators, shown in Figure 4-5, are placed at the top center of the symbol frame in field "B."

FIGURE 17. **An example of building unit symbols.** [Excerpt from Headquarters, Department of the Army, and US Marine Corps, *FM 101-5-1/MCRP 5-2A Operational Terms and Graphics*, (US Army and US Marine Corps, 1997), 4-5]

In the BFT/FBCB2 system, this symbology (whose reading and construction is second nature to most staff planners) is largely automated, with the transceiver emission identifying the symbol/icon that should be used to represent the platform's location on the map.<sup>506</sup> This, however, has the potential to create an enormous number of icons on any given screen (at least 132 for 1<sup>st</sup> Brigade alone). This proliferation of BFT/FBCB2 emitters is useful at a tactical level, enabling platoons to manoeuvre near each other with greatly reduced concern of fratricide.<sup>507</sup> For

<sup>506</sup> Automation of blue force icons on CPOF is not prescriptive, with users retaining the ability to tailor individual icons, add notes to describe the unit better, or colour-code icons to indicate membership of a particular group of units.

<sup>507</sup> See, for example, a description of the impact of FBCB2/BFT on the tactical behaviour of 3<sup>rd</sup> ID during the battle of As Samawah. John E. Tisserand, *Volume III: Network Centric Warfare Insights* (Carlisle Barracks, PA: US Army War College, Center for Strategic Leadership, 2006), 37-53.

commanders utilising CPOF, however, this granularity is problematic. In particular, *the fighting platform is not coterminous with the unit as defined above*: in fact, as is obvious, the fighting platform is only one of many components required to form a unit. If a commander using CPOF does not wish to micro-manage a battle (and given that CPOF was only deployed at the lowest to Battalion level in 1<sup>st</sup> Cavalry, monitoring and intervening at an individual platform level would be considered micro-management), then the commander needs different icons that represent meaningful levels of operation for his purposes. There is, then, a process of selection that takes place so that the emitter-signal can be named a unit for the purposes of command.

This occurs by locating a 'lead' platform, usually the unit commander's vehicle, which is taken to identify the unit as a whole. The location identified by the transceiver emission from that single vehicle will indicate a cluster of vehicle platforms, and this will be achieved through the use of an appropriate symbol (the symbol indicating a company, for example, rather than an individual BFV). Information about the unit portrayed by each icon is then available through a 'drill-down' facility, in which a separate table illustrates important details such as the component strength of each unit (see Figures 18 and 19).

This technical description of the process by which a unit is enacted in CPOF, however, is insufficient to explain the *kind* of presence established for that unit. The rest of the chapter describes how an icon on CPOF enacts a unit as a point of physical presence, and the kind of agency with which the unit is imbued as a result. In particular it argues that enacting the presence of the unit-in-CPOF is always/already accompanied by a distribution of exclusions and absences, which both help determine the nature of a unit's presence and act to disrupt its ongoing enactment. In particular, this chapter explores the presence of the unit-in-CPOF in terms of its physical

location and mobility – in terms of its enaction as what is termed a *point of mobile possibility*.

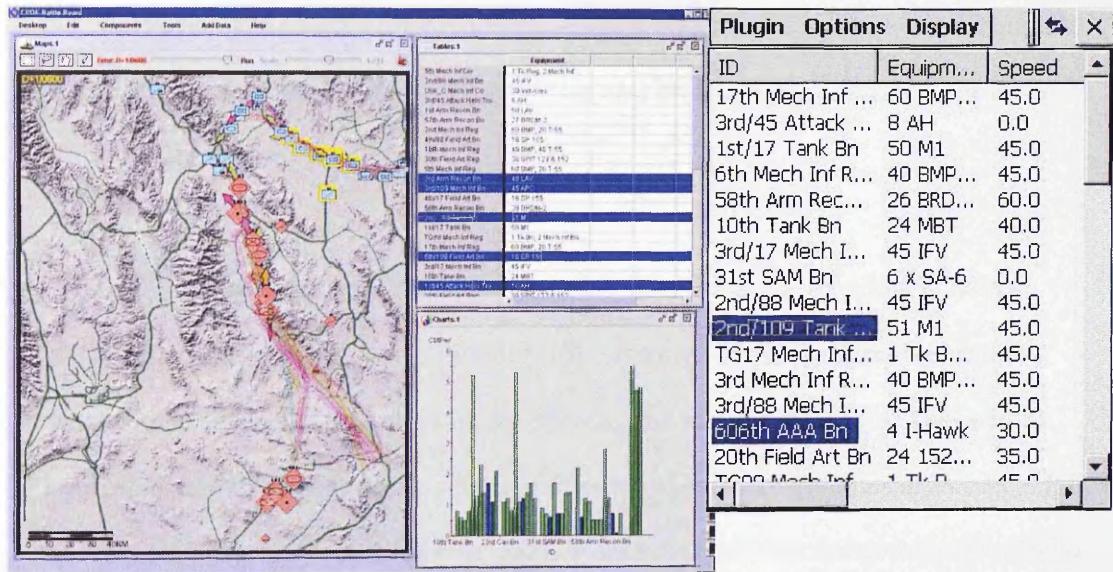


FIGURE 18. CPOF display showing drill-down table of information regarding unit composition (top right).

FIGURE 19. Drill-down table of information as used on Personal Digital Assistant.

[Both figures reproduced from Pittsburgh Pebbles PDA Project, "Command Post of the Future," (Carnegie Mellon University, 2005), <http://www.pebbles.hcii.cmu.edu/cpof/>]

### Physical presence (and absence) of the 'unit-in-CPOF'

Before continuing, it is helpful to address what might seem to be a commonsense objection to this line of inquiry: how can an icon on a screen enact physical presence at all? The icon on the screen is, after all, only present in cyberspace, or, at best, present in the square half-inch or so of physical space of the plasma screen it covers. To explain this, let us return to the above description of the way in which the 'real' physical unit is named as the icon on the screen. We have already seen that naming a unit is an important and continuing process in the US military, without which the unit could not exist as a meaningful entity but would instead be a collection of people and machines without a defined shape or presence. Further we have seen that naming a unit for the purposes of enacting it as a point of presence often takes place in the command process, and in this the icon in CPOF is no exception. The icon in CPOF

*names* a unit, making it present both for commanders and for the unit itself (units without access to their command chain are barely units at all, and certainly are units with vastly different capacities and agency). The icon may be remote from the physical presence of the unit in the sense that it is often some kilometres from the unit, but it is integral to the enacting of the unit *as* a unit with certain properties of physical presence.

This chapter works from the assumption, then, that the icon in CPOF is an enactment of the unit that is highly militarily relevant, impacting greatly on the battlespace around it, for example, by naming the unit as something that can be commanded (an important first step in the organisation of violence at any level), but also by enabling particular kinds of agency on behalf of both the commander (who can see unit position ‘in-transit’ and thus demand different things of the unit) *and of the unit itself*. This unintuitive conclusion, in which an icon that is ostensibly generated *out of* the physical presence of the unit nonetheless generates the conditions of possibility *for* the physical presence of the unit, results from the commingling of matter and meaning discussed in Chapter Two as marking the nature of the ‘alternative’ real which guides this thesis. This commingling is not the excessive capabilities of the body disrupting orderings (meanings) imposed from ‘outside,’ as described by Lefebvre and Foucault. Rather, this is more akin to a Deleuze-Guattarian assemblage, in which it is not sensible to distinguish between matter and meaning – here, it is not sensible to make a qualitative distinction between the icon as ‘representation’ and the unit as ‘physically present.’ Rather, icons and units are enrolled in the same ‘desiring assemblage,’ one which organises itself according to affective tonalities.

Put another way, we might follow Lorraine Daston’s discussion of the ‘thingness of things,’ in which she argues that “some things speak irresistibly, and not only by

interpretation, projection, and puppetry." In other words, she urges us not simply to analyse things like icons as meaningful 'representations' operating according to the semiotics of human language, but as things that are obdurately material, with their own mode of 'speaking' as well.<sup>508</sup> Perhaps the unit-in-CPOF (the icon *and* its associated unit) is one such thing, and we should look beyond the icon as a representation created through the guiding hand of man (although it is likely the symbology of the icons would indicate much about a discourse or semiotics of violence). Rather, and as becomes clearer below, the unit-in-CPOF is a composite thing which 'speaks' (and 'acts') of its own accord, and – as Heidegger might have it – "gathers" other elements "into something that stays for a while: this thing, that thing."<sup>509</sup> Exploring the process of this gathering, the practice of this speaking, is, of course, the purpose of the praxiographic analysis of CPOF that follows, and one which explores CPOF as an assemblage where materiality *is* meaningful, and vice versa.

#### Physical presence: the 'track-and-trace' unit

The icon on CPOF enacts the unit as physically present in a manner that is novel in modern war, as a precise location (with exact longitude and latitude) in real time. This contrasts sharply with previous modes of enacting the physical presence of units, which tended to ignore the specific location of a unit at any given moment in favour of emphasising its progress from a start point toward an end point. As Schmitt and Klein note in their study of pre blue force tracking command behaviour in the Marine Corps:

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<sup>508</sup> Lorraine Daston, "Speechless," in *Things That Talk: Object Lessons From Art and Science*, ed. Lorraine Daston, 9-24 (New York, NY: Zone Books, 2004), 14.

<sup>509</sup> Martin Heidegger, *Poetry, Language, Thought* (New York, NY: Harper Collins, 1971), 172; Daston, "Speechless," 16.

... a good portion of message traffic is more about relieving anxiety than it is about actual command and control. *Where are you now? Are you in position yet? Have you reached Checkpoint 35? Tell me when you get there.*<sup>510</sup>

In this case, the physical presence of a unit is linear and progressive. It moves *from A to B*, often with limited in-transit visibility. During the last century, some militaries took this to the extreme of issuing detailed schedules commanding where a unit should be at particular intervals in order to arrive at their destination on time (intervals calculated, it might be added, according to engineering considerations of artillery range and maximum speed of movement, and not on the basis of ongoing and altering enemy activity and situational context).<sup>511</sup> It is in this context that van Creveld uses the term the “timetable war” to refer to World War I.<sup>512</sup> However, even in the context of the more flexible command structure utilised by the Germans in World War II, and the Israelis in 1967 and 1973, where units were issued with mission objectives and then allowed to pursue them with relative freedom, the physical presence of the unit remained remarkably end-to-end oriented. As Israeli General Mordechai Gur argued in 1978:

The IDF ... is like a smart bomb being released on the basis of general data, without the target even being seen. Later, after a few miles, the bomb identifies the target and is locked on it. From this point it flies on accurately until the objective is reached.<sup>513</sup>

In a different context, Thrift refers to this linear and progressive mode of physical presence as a mode of “*sequential order*.” The modern world can show up as

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<sup>510</sup> John F. Schmitt and Gary A. Klein, “Fighting in the Fog: Dealing with Battlefield Uncertainty,” *Marine Corps Gazette* 80, no. 8 (1996): 63 (emphasis original).

<sup>511</sup> Recall the description of the British in the Battle of the Somme above, n. 102.

<sup>512</sup> Creveld, *Command in War*, Chapter Five.

<sup>513</sup> Quoted, Creveld, *Command in War*, 195. It is useful to note that the model of C2 cited here was adopted by the Israelis in direct response to the almost complete lack of hierarchically imposed planning on force behaviour in the war of 1956, which saw the Israelis dogged by mishap, uncoordination, and fratricide. Creveld, *Command in War*, 196-98.

“confident and in charge” courtesy of a series of technologies, knowledges, and behaviours that enable repetition, such as timetables, standardised addresses, postcodes, and so on.<sup>514</sup> After reviewing some of the elements of a history of address, Thrift notes that:

Though these are clearly only notes towards a more general history of knowledges of position and juxtaposition ... what is clear is that the goal was to produce a general configuration based on exact and countable sequencing which could roll over seamlessly into the future ... . *Everything would be in the right place at the right time.*<sup>515</sup>

It is Thrift’s argument that this series of specific “knowledges and competencies concerned with position and juxtaposition” constitute society’s ‘technological unconscious’:

... whose content is the bending of bodies-with-environments to a specific set of addresses without the benefit of any cognitive inputs, a prepersonal substrate of guaranteed correlations, assured encounters, and therefore unconsidered anticipations.<sup>516</sup>

Thrift distinguishes between the sequential ordering of the modern world, found emerging from at least the 17<sup>th</sup> century, and a contemporary emergence of a ‘track-and-trace’ mode of spatial ordering. He examines a series of factors which have brought about this new way of organising position and juxtaposition: new technologies, such as GPS, lasers, and wireless ICTs, which can continuously monitor the position of people and things; “formalised and integrative knowledges of sequence,” including scheduling approaches, which enable a much more sophisticated arrangement of multiple and complicated items; and new possibilities

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<sup>514</sup> Nigel Thrift, “Remembering the Technological Unconscious by Foregrounding Knowledges of Position,” *Environment and Planning D: Society and Space* 22, no. 1 (2004): 178 (emphasis added), 176.

<sup>515</sup> Thrift, “Remembering the Technological Unconscious,” 181 (emphasis added).

<sup>516</sup> Thrift, “Remembering the Technological Unconscious,” 177.

for calculation, including those made possible by spreadsheets, which allow the making of calculations about the future in a way that was previously too difficult to be practicable.<sup>517</sup> According to Thrift, these factors have led to three important shifts in the modes of ordering operating in contemporary society. Firstly, addresses have become mobile and attached to both human and non-human actants (for example, through SIM cards in mobile phones, and bar codes). Secondly, computing – and particularly computing that can calculate location – has slipped into the environment and become a part of everyday life. Thirdly, these two developments (combined with the ICT revolution) allow for ‘micro-coordination’ or ‘hyper-coordination.’ Here, an actant’s location, trajectory, and so on, are constantly revised according to calculations (often made by computers located in the environment) that respond to a defined criteria of need and/or efficiency.<sup>518</sup>

This new mode of ordering is characterised by a number of features that resonate with Deleuze’s vision of a control society.

Thus what we see is a different kind of repetition, which allows things to show up differently with different kinds of opportunities associated with them. Through the application of a set of technologies and knowledges (the two being impossible to separate), a style of repetition has been produced which is more controlled *and* also more open-ended, a new kind of roving empiricism which continually ties up and undoes itself in a search for the most efficient ways to use the space and time of each moment.<sup>519</sup>

In particular, the constant alteration in pursuit of efficiency is evocative of Deleuze’s description of control as a “self-transmuting molding continually changing from one moment to the next . . .”<sup>520</sup> Yet, as Thrift astutely notes, the track-and-trace model, marked as it is by objects positioning themselves in relation to other objects, is only

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<sup>517</sup> Thrift, “Remembering the Technological Unconscious,” 182.

<sup>518</sup> Thrift, “Remembering the Technological Unconscious,” 185.

<sup>519</sup> Thrift, “Remembering the Technological Unconscious,” 186 (emphasis original).

<sup>520</sup> Gilles Deleuze, *Negotiations, 1972-1990* (New York, NY: Columbia University Press, 1995), 178.

made possible against a background ‘standardisation’ of space: “a carefully constructed absolute space begets this relative space.”<sup>521</sup> This background standardisation of space and its concomitant track-and-trace mode of ordering give some clues as to the way in which a unit is enacted as physically present in CPOF.

As noted in the previous section, the GPS signal locating a particular vehicle platform according to its GPS coordinates is transmitted to a central server, where it is laid over a map that has been standardised according to GPS locations.<sup>522</sup> It is only in the context of the constant calculation and recalculation of absolute position in this space that units enact themselves as mobile, agile, and responsive. Without the certitude of a unit’s positioning within Euclidean space in real time and, importantly, the certitude of the positioning of other friendly units, a unit would be unwilling to move in response to unfolding events without a preconceived demarcation of territory and/or careful sequencing for fear of fratricide. Similarly, units are reluctant to move flexibly outside pre-existing plans without accurate knowledge of their position in relation to the demarcations of the city for fear a wrong turn might lead them into a neighbourhood requiring vastly different forms of force protection.<sup>523</sup>

The physical presence of the unit-in-CPOF, against a backdrop of standardised, calculable space, is one of real space/real-time presence, which enacts a highly mobile

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<sup>521</sup> Nigel Thrift, “Movement-Space: The Changing Domain of Thinking Resulting From the Development of New Kinds of Spatial Awareness,” *Economy and Society* 33, no. 4 (2004): 592.

<sup>522</sup> See above, n. 509.

<sup>523</sup> Despite the availability of GPS, however, ‘wrong turns’ have still played a substantial role in OIF. In particular, the wrong turn taken by 507<sup>th</sup> Maintenance Company into the heart of Nasiriyah led to a series of ambushes that caused 20 casualties and saw seven soldiers captured, including, famously, Private Jessica Lynch. Poorly trained, poorly led, but also – critically, according to General Peter Schoomaker – without GPS, this wrong turn was a turning point in public perception of the war in the US. See, Thomas E. Ricks, *Fiasco: The American Military Adventure in Iraq* (London: Allen Lane, 2006), 119.

agency.<sup>524</sup> Whereas traditionally units were physically present in fixed relation to a pre-existing plan (*Are you in position yet? Have you reached Checkpoint 35?*), units are present in CPOF as *mobile potentialities*. They are physically present at a discrete point at any given time, in known relation to both other units and reported SIGACTs. These trajectories are capable of constant revision in light of the event-fulness of the battlespace. The mobility of these other forms of presence provides impetus for the unit to constantly recalibrate its own motion in response to operational need.<sup>525</sup>

#### ‘Physical absence’: centring a unit, decentring a network

The physical presence of the unit-in-CPOF, then, is centred on the location of vehicle platforms as they move through the battlespace. The transceivers used to locate these vehicles, however, are only turned on when weapons platforms are in use, a designation which does not cover activities such as maintenance or movement that occurs within a Forward Operating Base. This means that the unit’s presence in CPOF, its effective agency as enacted there, is circumscribed by what it is possible for a transceiver to do: to be on or off, moving or still. As described above, courtesy of new assemblages of technology and knowledge, the unit-in-CPOF is highly mobile and adaptable in terms of location and movement, but ultimately, it is still capable only of moving its weapons platforms through the streets and making contact with the enemy in a way that can be represented as a SIGACT. There are, in fact, entire registers of a unit’s behaviour that cannot be accounted for by this emphasis on the physical presence of the unit as part of a track-and-trace mode of ordering.

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<sup>524</sup> The phrase ‘unit-in-CPOF’ is used to acknowledge that this enaction of a unit is only one of many, albeit a particularly powerful one (given its significant presence in the command chain).

<sup>525</sup> For a detailed description of the impact of BFT/FBCB2 on the movement of 3ID in As Samawah that indicates similar effects, see, Tisserand, *Volume III: Network Centric Warfare Insights*, 37-53.

This chapter argues that moments of presence, of centring, are necessarily accompanied by a decentring of different possibilities for actualisation. Put another way, this chapter argues that the virtuality of a thing is only ever partly actualised in any given moment or setting, and that this actualisation is never as firm or complete as we might think. In light of the previous discussion of a unit's presence in CPOF as a mobile potentiality, this section seeks to identify which kinds of things are excluded by this emphasis on the unit as being physically centred in real space and real time.

Given that the physical presence of the unit-in-CPOF is limited to the location of vehicles, often the location of a single 'representative' command vehicle, it is apparent that physical presence in CPOF excludes quite a lot. For one, it excludes the location of the soldiers of a unit, who may not be in the vehicles at all. Another, more complicated exclusion, is the exclusion of the network of human and non-human actants required to link the GPS emitter to the CPOF screen. This is not simply a matter of excluding the software and hardware requirements illustrated in Figure 16, but of excluding an entire assemblage of human and non-human infrastructure dedicated to maintaining the network's connectivity. For example, Captain John Transue of the 13<sup>th</sup> Signal Battalion speaks of 100 manholes and 10 kilometres of conduit infrastructure required in Camp Liberty alone to give the TOC sufficient bandwidth to operate CPOF.<sup>526</sup> Without this network to hold the signal stable from transceiver to screen, a unit's physical presence in real time and real space is unreliable, even impossible. There is, to use Thrift, an "unconsidered anticipation" that this network will hold stable, and, by and large, it does. When it does not, however, one of the excluded potentialities for the enactment of a unit – its *enaction* as a presence at an uncertain location – comes to the fore.

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<sup>526</sup> John Transue, "Upgrades Enhance Operational Communications," *SIGNAL* (2005), <http://www.afcea.org/signal/articles/anmviewer.asp?a=908&print=yes>.

There is a further network whose exclusion haunts the presence of units in CPOF in ways that are neither anticipated nor imagined. This is the network of people, knowledge, and things required to help a unit *keep its shape* as it moves. To put it another way, if the physical presence of CPOF enacts a mobile agency, then it simultaneously covers over the presence of this network whose operation is absolutely necessary to the achievement of that mobility. Mobility is a tricky issue: the US military demands that its units be mobile, in order to be able to send them out into the battlespace and do their work, but it also requires those units to maintain a known configuration while moving. In fact, as John Law notes in a rather different context, what is really sought in things that will project force over a distance is not only *mobility* but also *durability*, *the capability to exert force*, and, most importantly, the *capacity to return*.<sup>527</sup> Perhaps, then, we could return to the articulation of the physical presence of a unit-in-CPOF outlined above and suggest that the latter qualities be added to the physical presence of mobile possibility: assumed in this physical presence is the ability of that unit-in-CPOF to maintain its shape, exert force over its environment, and have sufficient mobility to return to its base.

Law's discussion took place in 1986 in the early days of Actor-Network Theory (ANT), when he was discussing the question of how ships in the Portuguese imperial fleet could act as effective agents of imperial power. Law framed the problem like this:

Vessels may move to and fro with relative freedom. Like faithful servants they may thus be seen as candidate means for those who wish to exercise long-distance control. However, before they can be so used, they have themselves to be controlled. They have to be able to retain their integrity under a

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<sup>527</sup> John Law, "On the Methods of Long Distance Control: Vessels, Navigation, and the Portuguese Route to India" (Centre for Science Studies, Lancaster University, 1986), <http://comp.lancs.ac.uk/sociology/soco504jl.html>, 5.

range of circumstances. Their structure – but also their means of navigation – these are two of the features that define the envelope within which they come and go like faithful servants.<sup>528</sup>

For a military unit patrolling the city of Baghdad there is a similar problem. If a unit is enacted as a point of mobile presence, there is nonetheless a series of relations and mechanisms required to keep the unit ‘internally’ stable as it moves through the environment (to keep the ‘point’ together, as it were). For Portuguese sailing ships, the network keeping them stable might consist of “hulls, spars, sails, winds, oceans, sailors, stores, navigators, stars, sextants, Ephemerides, guns, Arabs, spices, and money – and a lot more besides.”<sup>529</sup> For units in Baghdad, the network consists of an enormous and varying number of people and things, including: Combat Support Services (CSS), which, among other things, maintain tanks and BFVs that are worn down by the extreme heat and sandy conditions; tank spare parts, built in the continental United States and shipped over on pallets built at large warehouses throughout the country; bottled water, needed to keep soldiers hydrated; and email access and American movies, provided at Forward Operating Bases to keep soldiers happy and capable in the face of deprivation and homesickness. By focusing the enactment of the unit-in-CPOF on the point of physical presence of a mobile vehicle, this entire network is excluded, made absent, but, as discussed shortly, is never completely excluded.

One of the interesting implications of analysing how things maintain their shape using the method suggested by John Law and other early ANT proponents is that, on closer examination, it becomes apparent that in addition to the traditional Euclidean space of physical presence at certain longitudes and latitudes, there is at least one other kind of space in which the ship is operating. The ship is *also* operating in a networked space, where presence is not a result of physical presence at a particular

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<sup>528</sup> Law, "On Long Distance Control," 7.

<sup>529</sup> Law et al., "Situating Technoscience," 611.

location, but of the strength and stability of a network of relations. In fact, as Mol and Law note, it is precisely the *interference* between the ship's participation in both network and Euclidean spaces that affords the ship its special properties – its ability to keep its shape as it moves.<sup>530</sup> This discussion of the *interference* between different kinds of spatiality is useful here, if in a complicated way.<sup>531</sup>

Firstly, the notion of interference allows us to undermine the traditional notion of presence in physical space as being the place of 'real' presence. While many commentators would no doubt agree that there is a network elaborated to maintain a unit's presence and mobility, they would nonetheless argue that the unit is only *really* present at its physical location in space, and, further, that this presence is complete and whole in the sense that there is nothing unexpected, varying, or elusive about it. Such a commentator might say: 'A unit is present here, at the corner of this street, according to these coordinates. The logistics involved are of course important in getting the unit here, but ultimately, the unit's presence here is *what matters*.' Mol and Law's analysis suggests that the unit's presence 'here' is not the real or sole form of presence, but rather that it is a *result* of an interference between two different kinds of presence: the physical presence of a GPS emitter at a particular location, and the presence of that GPS emitter as part of a network of relations that hold the unit together *as a unit*. Without the continual operation of the latter, the former would have no (or radically different) meaning.

Secondly, the notion of interference allows us to think about the ways in which alterations to one kind of spatiality might impact on the other. This is another way of framing the issue of the "distribution of the conditions of possibility" to which John

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<sup>530</sup> Law et al., "Situating Technoscience," 611.

<sup>531</sup> For a more complete discussion of the way in which 'events' correspond to the interference between different spatialities, see, Tiago Moreira, "Surgical Monads: A Social Topology of the Operating Room," *Environment and Planning D: Society and Space* 22, no. 1 (2004): 53-56.

Law refers in the epigraph of this chapter: if the physical presence of a unit in real space/real time on CPOF is seen as its ‘centre,’ then it is generated at least partly by this decentred and variable network spatiality. To take a simple example from above, when the information network joining the GPS emitter to the CPOF fails, the unit is enacted in CPOF as an unknown, ‘out of date,’ or otherwise inaccurate location. The unit is no longer enacted as a mobile potential with physical presence at a precise location.

Alterations in the networks that hold units stable are more common than perhaps first suggested by ANT-style analyses. Whereas early ANT analyses tended to emphasise a fairly stable series of relations (the relation of the ship to the ocean to the captain to the sailors and so on), close examination of the network of relations maintaining the constancy of the unit’s shape in CPOF suggests a *rhythmic* alteration in the network. In particular, the network is marked by the difference between the relations of a unit on patrol, and the relations of a unit on base (at rest).

Given that the network in question is the network required to maintain a unit’s stability *while moving*, it may seem strange to focus on the network in play when a unit is at rest (and, not incidentally, entirely invisible to CPOF). However, the network of the unit-at-rest is intimately tied to the network of the unit while moving, to the extent that they should not be viewed as separate systems but modulating versions of the same network. This is particularly the case because the effective functioning of units requires the ‘work’ that is done while at rest: some of this work is maintenance and repair, some of it is training, and some of it is a kind of mental rehabilitation for soldiers to enable them to return to their duties the following day.<sup>532</sup> All of this occurs in the ‘off-cycle’ of the network, and without it, the unit would not be

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<sup>532</sup> Interviewees often described ways in which they used their private time to ‘maintain their sanity.’

able to maintain its shape as it moved through Baghdad: soldiers would not follow their commanders, tanks would not move as required, pre-planned formations keeping the unit together would be broken.

So the physical presence of a unit-in-CPOF is generated not only by the interference of a network spatiality with its presence at a GPS-specified Euclidean location, but by the interference of an altering, *pulsing* network spatiality. As the network alters, so too does the way in which physical presence is actualised. In the most obvious sense, this is because when the network is configured as being ‘at rest,’ the physical presence of the unit disappears altogether from CPOF. Further, alterations in the network-at-rest have *ongoing impacts in the enactment of the mobility, durability, and forceful capacities of a unit-in-CPOF*. When maintenance fails, when training is improved, when soldiers lose morale, all of these things impact on the enactment of the unit-in-CPOF as a competent entity capable of moving through the battlespace at will.

A haunting absence: centring a unit, Othering its potential

Centring the unit-in-CPOF on its point of mobile presence excludes the actor network articulated to maintain its stability (its durability) in more than one way. In the first way, considered above, this centring merely defers consideration of the support network, passing it on to different points of control within the command structure (to the officer in charge of logistics, for example). Despite this deferral, this network maintains continuity with the unit-in-CPOF – indeed, CSS uses a tool that is much like BFT/FBCB2 to track its convoys as they move throughout Iraq.<sup>533</sup> It is possible to move analytically from the unit’s point of track-and-trace presence to the

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<sup>533</sup> This tool is the Defense Tracking, Reporting, and Control System (DTRACS). See, Tisserand, *Volume III: Network Centric Warfare Insights*, 85-89.

other ‘nodes’ in the network that hold a unit’s presence stable without altering the ‘register’ or ‘texture’ of one’s analysis at all.

The second kind of exclusion of the actor network, however, suggests that perhaps ‘network’ is not the right term at all. This exclusion is not one of distance or deferral (where the network is continuous and connected to the unit, but acknowledgement or consideration of its presence is distanced and/or deferred from the enactment of that centre); this exclusion is an exclusion of alterity, of *Otherness*.

In the words of Mol and Law:

Our answer is that we are *not* simply dealing with one part of a materially heterogeneous (actor) network. For putting it this way loses sight of the fact that the enactment is a *complex association between that which is present ... and that which is not*. In short, *it loses sight of Otherness*. And, as part of this, it loses sight of the irreducible *discontinuity* between what appears on the paper and what does not.<sup>534</sup>

Centring presence in CPOF on the mobile unit, and, in particular, on its GPS emitter, makes Other the alternative kinds of presence/agency with which a unit is imbued as part of its participation in the ‘actor network,’ alternative kinds of agency which are, in fact, discontinuous with – irreconcilable and Other to – an icon on the screen, and which nonetheless haunt the presence of the unit-in-CPOF.

In particular, the centring of presence in CPOF on the mobile unit excludes the agency that results from the unit’s configuration at rest, while in the Forward Operating Bases (FOBs). This perhaps seems sensible and straightforward: units are agents when they are in the battlespace under orders, and they are not really units at all when they are at rest, not being commanded, not fighting. This is, in fact, why the unit-at-rest is excluded from enactment in CPOF. Apart from participating in formal

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<sup>534</sup> Law et al., "Situating Technoscience," 617 (emphasis original).

training, the unit-at-rest *has* no recognisable structure or agency – it cannot really be named as a unit as it does not organise itself in a way that is continuous with, for example, a Table of Organization and Equipment. Units-at-rest, of course, maintain a highly rigid and structured form; however, this form is not continuous with the unit in the battlespace, consisting of different human and non-human actors, often in a highly dispersed arrangement that makes it impossible to pinpoint a single point of presence for that unit (a unit's officers will sleep in different barracks to its NCOs and soldiers, for example). A unit-at-rest is simply Other to the effective military agency enacted by the unit-in-CPOF.

Yet the following is from one of the world's leading counterinsurgency experts, extracted from an article detailing 28 cardinal rules for company commanders preparing to deploy to Iraq:

*So your first order of business is to establish presence. If you cannot do this throughout your sector, then do it wherever you can. This demands a residential approach – living in your sector, in close proximity to the population, rather than raiding into the area from remote, secure bases. Movement on foot, sleeping in local villages, night patrolling: all these seem more dangerous than they are. They establish links with the locals, who see you as real people they can trust and do business with, not as aliens who descend from an armored box. Driving around in an armored convoy – day-tripping like a tourist in hell – degrades situational awareness, makes you a target and is ultimately more dangerous.<sup>535</sup>*

According to Kilcullen, the golden rule determining a unit's presence in counterinsurgency (COIN) is not one of mobile possibility but the demand that units "be there."<sup>536</sup> For 1<sup>st</sup> Cavalry during OIF II, this basic tenet of COIN was disregarded

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<sup>535</sup> David J. Kilcullen, "Twenty-Eight Articles: Fundamentals of Company-Level Counter-Insurgency" (2006), <http://www.smallwars.quantico.usmc.mil/search/articles/Twenty-EightArticles-Edition1.pdf>, 4 (emphasis added).

<sup>536</sup> Kilcullen, "Twenty-Eight Articles," 4.

(and until recently has barely been utilised by US troops at all, with the marginal exception of the operations of the 101<sup>st</sup> Airborne Division in Mosul in 2003-2004).<sup>537</sup>

The converse of this argument is that basing arrangements which emphasise large, highly protected FOBs are implicated in enacting the unit as more than/Other than simply a mobile potential: even when the unit is at rest, it is enacted as a combatant in the battlespace, but a kind of combatant that is unfamiliar and unrecognisable to the US military command process. Lack of presence has an agency all of its own. So the presence of the unit-in-CPOF does not simply exclude the unit-at-rest and its support network through deferring consideration of this network within the command chain, it doubly excludes this network through the *discontinuity* that exists between the presence that can be actualised in CPOF and alternative forms of agency enacted through this assemblage.

This discontinuity or Otherness suggests another way in which it is useful to think about presence as the result of the interference of different kinds of spatiality. For if the unit-in-CPOF operates in a physical (Euclidean) space of longitudes and latitudes, and also operates in a network space where presence is the result of a stable (if pulsating) network of relations, then the unit-in-CPOF is *also* present in a third kind of space, a space in which effects that are *discontinuous* with the unit-in-CPOF

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<sup>537</sup> Ricks, *Fiasco: The American Military Adventure in Iraq*, 228-32. Interestingly, Lt. Col. Kilcullen (cited above) is a member of a team of PhD-equipped advisers supporting the new US commander in Iraq, Lt. Gen. David Petraeus, whose plan includes increasing basing arrangements for US troops that stress living among the population. Thomas E. Ricks, "Petraeus' Iraq Staff Armed with Lots of Ph.D.S," *The Washington Post*, February 10, 2007. Similarly, in 2006 UK troops in the troublesome Helmand province of Afghanistan utilised a tactic called the "platoon house," which involves setting up residence in the centre of remote villages to establish presence. Lack of troops to cover the enormous Area of Operations, however, made this tactic difficult to sustain, and it has subsequently been abandoned. Simon Jenkins, "Talk to Mullah Omar, if it Saves British Soldiers' Lives," *The Guardian*, September 6, 2006.

are excluded from the enactment of the unit-in-CPOF, but nonetheless persistently return as a necessary presence for that enactment.

Mol and Law refer to this as a fire spatiality, in which presence and absence flicker backward and forward, kept mobile by the continuing need for centres of presence to incorporate that which they exclude. In practical terms this means that although the US military would like to exclude the agency of the unit-at-rest from the presence of the unit-in-CPOF, it is nonetheless continually faced with the return of that which is excluded and discontinuous. This return can be seen in the form of, on the one hand, a hostile population who resent the unit for “day-tripping like a tourist in hell,” and, on the other hand, a unit whose form and functionality depends on their sequestering in FOBs.<sup>538</sup> This is not to say that the US military has no choice but to operate out of large FOBs, it is just to acknowledge that in so doing they provide the current conditions which give a unit its stability, mobility, capacity to exercise force and so on. These conditions might also be provided by smaller, in-community basing arrangements, but the unit would then be forced to be configured differently (there would be more difficulty with maintenance of vehicles, for example).

Mol and Law first identify fire spatiality in their discussion of the formalism, mentioned earlier, used to calculate the optimum shape for an aircraft’s wing:

The expression takes us beyond itself. It has other connections. In order to establish the significance of each of its terms, and indeed to establish the best wing design, it is necessary to go beyond the page. Indeed, it is *necessary to go elsewhere*. It is necessary to go to places that are *absent* from the page. Places which are therefore, or so we want to suggest, Other to the presence of the sheet of paper and its symbols.<sup>539</sup>

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<sup>538</sup> Kilcullen, "Twenty-Eight Articles," 4.

<sup>539</sup> Law et al., "Situating Technoscience," 617 (emphasis original).

One of these “elsewhere” places to which the authors refer is the place where the limiting values of the formalism have been decided. Maximum allowable gust response, for example, is a figure derived from experiments where pilots have ended up throwing up, disoriented, perhaps even unconscious. There is no continuity between the events of those experiments and the numbers present on the page, yet while effacing (covering over) the existence of those experiments the numbers on the page nonetheless depend on their existence. As Mol and Law put it:

Look at it. *Present* is a figure for tolerable  $G$  [gust response]. It is there, on the paper. But that figure depends precisely upon what is *absent* – a sickened and frightened pilot. *Depends upon* that which is absent (so it is present) but (in an additional twist) at the same time depends upon *making* it absent: because there is certainly no room for a pilot and his vomit in the network of relations pencilled on a sheet of paper by an aerodynamicist in a clean office. And it is this pattern (we might think of it as an *oscillation* or a *flickering* between present-presence and absent-presence, though perhaps this gives away too much to time) which is the key to what is distinctive about the enactment of this object, the key to giving it a relatively stable and determinate shape.<sup>540</sup>

By using this discussion as a guide we can be more specific about the way in which the absence of the unit-at-rest haunts the unit-in-CPOF. Firstly, it is apparent that the unit-in-CPOF depends upon that which is absent, the unit-at-rest, which has the paradoxical effect of making the unit-at-rest present in a strange way, as Mol and Law note. But the unit-in-CPOF also depends upon *making* that unit-at-rest absent, because the unit-at-rest is not a named, recognisable, or commandable entity in a sense that can be acknowledged by CPOF. There is no room, no space, for the unit-at-rest to be present in the unit-in-CPOF.

The flickering between absence and presence, then, is the flickering between the unit-at-rest being present (for the purposes of the functioning of the unit), and the

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<sup>540</sup> Law et al., "Situating Technoscience," 617-18 (emphasis original).

unit-at-rest being made absent (for the purposes of the effective functioning of CPOF). What is interesting here is that this flickering does *not* enact a “relatively stable and determinate shape,” as in the case of the formalism. For, unlike the experiments on pilots, which have come and gone, the unit-at-rest is an ongoing process, one with a continuing possibility for *variation and interruption*. Making the unit-at-rest present for the purposes of the effective functioning of the unit, then, opens the unit-in-CPOF to other, less intended, effects of the unit-at-rest. This includes effects such as those outlined by Kilcullen above, where the unit-at-rest has *agency* beyond that of actualising the unit-in-CPOF as intended (as a mobile point of presence), and this slippery, excessive – virtual – agency haunts the unit-in-CPOF, disrupting its smooth and firm enactment. This is a flickering *and* a haunting, then, with the US military unable to control and determine the enactment of the unit-in-CPOF as ‘simply’ a point of mobile possibility.

Creating presence through interference: the “distribution of the conditions of possibility” that make presence possible

The centring of the unit-in-CPOF on the mobile presence of a GPS emitter at a specific location has the effect of creating a series of absences. This chapter argues that the specific qualities of this centring are possible because of the interference of at least two different kinds of spatiality: the unit’s presence in Euclidean space and the unit’s presence as part of an actor network responsible for maintaining the unit’s mobility, durability, capacity to exert force, and its capacity to return. Having introduced the idea that a presence can be the result of the interference of different kinds of spatialities, this chapter expands the scope of inquiry to include other, less obvious, spatialities that are also significant in enacting the unit-in-CPOF. In particular, it explores the fire space in which the support network and the unit-at-rest are both excluded and included in the enactment of the unit-in-CPOF.

No doubt there are other forms of spatiality, other distributions of absence and presence, involved in the enactment of the unit-in-CPOF as well. In fact, we have already seen one mentioned previously. Naming units to enact varying points of presence *as though* they are singular in order to enable meaningful action is another distribution of presence (this *kind* of unit is present) and absence (this *particular* unit's configuration is made absent). Mol and Law refer to this as a topology of fluidity:

Shape invariance is secured in a fluid topology in a process of more or less gentle flow. It is secured by displacement which holds enough constant for long enough, which resists rupture. A *topology of fluidity* resonates with a world in which shape continuity precisely *demands* gradual change: a world in which invariance is likely to lead to rupture, difference, and distance. In which the attempt to hold relations constant is likely to erode continuity. To lead to death.<sup>541</sup>

It would be possible to explore how the topology of fluidity impacts on the agency of the unit-in-CPOF in much the same way as the interference of fire space.

Such an exploration might begin with the drill-down tables illustrated in Figures 18 and 19. These tables articulate a much less comprehensive enunciation of the necessary components of a unit (usually numbering the major weapons platforms, and perhaps including the number of personnel) than that articulated in a TOE. As a result, these tables enact the unit as named in a way that effaces the differences between the unit-in-CPOF and the unit as defined by the TOE. In particular, these tables enunciate the 'militarily necessary' components of the unit for the purposes of command, covering over differences that are deemed irrelevant altogether. These drill-down tables are, then, a necessary component of maintaining the unit-in-CPOF by articulating its 'capabilities,' but are also participants in the fluid topology of varying unit definition, if only through their role in disguising it.

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<sup>541</sup> Law et al., "Situating Technoscience," 614 (emphasis original).

What is interesting in this example is that, again, the interference of one form of spatiality with another to form a point of presence is never fixed or certain, but is always contingent and the result of hard work which can come undone. For example, the US Army deployed many of its troops to Iraq without Interceptor body armour, despite it being officially ‘issued’ to all soldiers and civilians working in Iraq.<sup>542</sup> This discrepancy between the unit-in-CPOF and the stated TOE is just one among the many that are usually capable of being covered over by the process of naming the unit as a unit with *this* combat relevant equipment (ignoring the absence of this other irrelevant equipment that is prescribed by TOEs). However, as troops came under fire, public concern grew that units were not sufficiently protected from enemy activity. The unit-in-CPOF’s enactment as a point of mobile presence was in this case undermined by the variability of that fluid space – by the unit’s ‘failure,’ in this case, to hold “constant enough” and resist rupture in the absence of body armour.

Similarly, the unit-in-CPOF is an agent of simplification in a complex world, and part of its distribution of absence and presence is the exclusion of the ‘mess’ of the real world. While Law has focused on the formalism (and also the spreadsheet) as a tool for simplification, here it is the icon which simplifies a world of baroque complexity. The icon distributes the material network required to support the unit, is haunted by the Otherness of the unit-at-rest, and also simply excludes the things that do not need to form a part of the icon for the purposes of the unit’s enactment.<sup>543</sup> Pain, blood, heat, sand, wind: they all form a flickering configuration of absence and presence that is different to the haunting presence of the unit-at-rest identified above.

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<sup>542</sup> For a discussion of the failure of the logistics network in this regard, see, General Accountability Office (GAO), *Defense Logistics: Actions Needed to Improve the Availability of Critical Items During Current and Future Operations* (Washington, DC: United States General Accountability Office, 2005).

<sup>543</sup> See, John Law, “Economics as Interference,” in *Cultural Economy: Cultural Analysis and Commercial Life*, ed. Paul du Gay and Michael Pryke, 21-38 (London: SAGE Publications, 2002).

This flickering presence forms a more “stable and determinate shape” by virtue of the (relatively) fixed relation these things bear to the presence on the screen (pain is translated into Medivac requests, sand is translated into higher maintenance requirements for trucks, and so on).

## Conclusions

This chapter explores the way in which presence is always a partial and contingent achievement, one that, to return to Law once more, generates and is generated by a field of the conditions of possibility. This field interferes with the actualisation of the point of presence at any given moment. This chapter explores this field through the lens of the different kinds of spatial relations that are required to generate presence, and the ways in which interfering spatialities can alter and vary to generate unexpected and often unwanted aspects of presence. The spatialisation of violence is shown to be experimental and open in the sense suggested by the first chapter.

What is interesting is that in exploring the spatial operation of violence through this prism, we again see an attempt by the US military to engineer a more mobile and flexible response to the battlespace, this time through the novel forms of distribution of absence and presence – and an associated form of agency – that are enabled in CPOF. The unit-in-CPOF is enacted as part of a *constantly changing effort*, with its icon often reflecting that role even to the extent of being shaded a particular colour to reflect membership of a particular mission. Further, the unit-in-CPOF is enacted with an individual agency not possible previously courtesy of the technologies of coordination described by Thrift. Yet, as with the US military’s attempts to coordinate multiplicity to its advantage, the real continues to elude its control in surprising and unexpected ways.

# CONCLUSION

Did we ever doubt, on that fateful day, that the horrors unfolding before our eyes would not be met with an American reign/rain of fire? The terrifying uncertainty of the exceptional event and its interpretation has proved to be a chimera. The meaning and interpretation of the event are now thoroughly incorporated into a regime of legitimization for exceptional sovereign practices. Perhaps the processes and prerogatives that named and interpreted the event had a hold on it before it even happened, awaiting its capture with a well-established discourse of threat, urgency, emergence and exception. The 'new' appears to have only reaffirmed the 'same': the permanence of the prerogatives of exceptional sovereign power.<sup>544</sup>

It is the task of this thesis to disrupt this simple affirmation of the 'same' (the permanence of exceptional sovereign powers) by the 'new' (the events of 9/11, the subsequent Global War on Terror). In other words, this thesis is concerned with identifying and then explaining the emergence of *difference* in the realm of military,

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<sup>544</sup> Andrew W. Neal, "Foucault in Guantánamo: Towards an Archaeology of the Exception," *Security Dialogue* 37, no. 1 (2006): 35.

and ultimately, security activities – difference which can found the possibility of political action.<sup>545</sup>

In many ways, the events of 9/11 interrupted the gentler soul-searching of the post Cold War period being conducted by critical security studies, providing a sudden imperative to identify, understand, and ultimately ‘unpick’ the (re)emergence of military realities that are (still) bloody, immediate, and objectionable.<sup>546</sup> Yet critical security studies has not necessarily lived up to this task. Instead of articulating a space (and time) for analysis that allows us to think difference with respect to security – in other words, to think politically – critical security studies approaches have relied on familiar tropes that can re-energise the very power structures they seek to undermine.

Andrew Neal, for example, examines one of the most celebrated critiques of the US Global War on Terror, Giorgio Agamben’s arguments relating to the state of the exception.<sup>547</sup> Neal argues that critical security approaches that utilise the sovereign declaration of the state of exception to explain the operation of contemporary security agendas remain trapped in an analysis that legitimises the very sovereign power they

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<sup>545</sup> This reflects the project of ontological politics articulated in Chapter Two, where an attitude of doubt toward asserted ontological coherence, and openness toward alternative ontologies, are pre-requisites for acknowledging both the importance of promoting alternative, less harmful enactments of reality, and the partial and ongoing nature of any such promotions.

<sup>546</sup> This is not to say that difference in security did not and could not emerge prior to the events of 9/11; rather, 9/11 has provided renewed urgency to the task of identifying and encouraging difference in this field.

<sup>547</sup> The exception is a philosophical construct that explores the limits of sovereign power that is expounded by authors as diverse as Carl Schmitt and Giorgio Agamben. As Agamben terms it:

On the other hand, if the law employs the exception – that is the suspension of law itself – as its original means of referring to and encompassing life, then a theory of the state of exception is the preliminary condition for any definition of the relation that binds and, at the same time, abandons the living being to the law.

Giorgio Agamben, *State of Exception* (Chicago: University of Chicago Press, 2005), 1. See, Carl Schmitt, *The Nomos of the Earth in the International Law of the Jus Publicum Europaeum* (New York, NY: Telos Press, 2003).

seek to critique. In the process of this analysis security is actually depoliticised – taken from the realm where qualitative difference can emerge. Neal argues that even a formally deconstructive approach such as that of Wæver which utilises the exception as a category of analysis:

... still treats security as a special category: security is still distinguished from politics, and the exception is still distinguished from the norm.<sup>548</sup>

Neal argues that the emergence of the state of exception as a tool of both analysis and of sovereign power has ushered in nothing new for either field: "The new, the rupture, the event, the exception, has been used to reveal the continuing sameness of sovereign power."<sup>549</sup>

This thesis agrees that critical security approaches have been inadequate in both identifying and generating analysis of spaces where sovereign power has in fact been ruptured. Yet while Neal's response is to return to an 'archaeological' (discursive) analysis of the conditions of possibility for the state of the exception, this thesis pursues a praxiography of security practices that demonstrates the messy, multiple, and experimental way in which those conditions emerge.<sup>550</sup> It is this approach that opens 'security' as an ongoing and political process, and which forms the core value of this thesis.

Interestingly, Neal actively rejects an emphasis on praxiographic study of security, arguing that praxiographies of violence simply reinforce the status of the

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<sup>548</sup> Neal, "Foucault in Guantánamo," 33.

<sup>549</sup> Neal, "Foucault in Guantánamo," 35.

<sup>550</sup> Archaeology refers to an early approach of Foucault's that, in subtle distinction to the work examined here, placed more emphasis on examining 'statements' that form 'the archive.' See, Michel Foucault, *The Archaeology of Knowledge* (London: Routledge Classics, 2002).

exception – and security – as Other to (as exceptional from) politics. For example, he argues:

It would be simple to describe exceptionalism as a special field constructed, bounded and continually reinforced by violent practices of exclusion, but this is what is already offered by Schmitt, Agamben and securitization theory. Rather than simply understanding the politics of discourses as ‘the violent or surreptitious appropriation of a system of rules’ ... or ‘the hazardous play of dominations’ ... , archaeology places more emphasis on relations between objects, subjects, concepts and strategies, the conditions under which each of these categories is constituted, and the way they interact and supply authority to each other.<sup>551</sup>

Problematically, it is apparent in Neal’s argument that for him violence is entirely bounded (ordered) by the logic of its enactment (in this case, violent practices of exclusion). In this analysis, violence cannot play a part in constituting, varying, and disrupting “relations between objects, subjects, concepts and strategies,” and so on. Indeed, Neal’s inability to conceive of violence in open and creative terms is made apparent in his phrasing: “It would be *simple* to describe ... .” As has been argued here, very little about the praxis of violence turns out to be simple.

Neal’s approach is unsurprising as his argument draws strongly on Foucault, and in particular, on the early works of Foucault. As noted in Chapter One, Foucault’s analysis stops short of allowing violence any creative agency, a fault that is only exacerbated by his refusal to think through the duration (the temporality) of violence. This thesis argues that while Foucault is an important starting point in rendering violence amenable to analysis by way of its spatiality, his limitations upon the creativity of violence require an account that is supplemented. One supplementary account provided here is that of Lefebvre, who makes it possible to think of the spatio-temporality of everydayness in a way that allows for the emergence of

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<sup>551</sup> Neal, “Foucault in Guantánamo,” 39.

difference. Another is the work of Deleuze, whose understanding of the war machine renders violence as a changeable part of its own conditions of possibility.<sup>552</sup>

The first two chapters of this thesis form a substantial case that possibilises thinking violence as open and undetermined through a careful examination of its spatial operation. The spatiality of violence has not been ignored in the realm of critical security studies, with a number of examinations of issues such as the shifting discourse of geopolitics, or the shifting location of violence to the urban environment.<sup>553</sup> However, these approaches have tended to explore the discursive aspects of space, and have not set out to explore 'real' (as opposed to discursive) space on the axes outlined in the first chapter – that is, to explore space as relational, emergent, and political.<sup>554</sup> Using the three iterations of the relationship between violence and spatiality provided by Foucault, Lefebvre, and Deleuze, these first two chapters argue for a new kind of critical security analysis, one which can locate the fissures in seemingly homogenous security discourses through paying close attention to spatial praxis.

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<sup>552</sup> As Reid argues of Deleuze vis-a-vis Foucault:

Both Deleuze's theory of desire and his theory of war are not necessarily susceptible to Foucault's line of critique. Both defy the virtuosity that Foucault assumes power to possess in respect of its capacity to subsume forms and forces that display any kind of alterity towards it. Deleuze does not contest that it is a capacity of the state to codify and regulate forms and forces that might otherwise undermine it, yet he challenges Foucault on the extent to which the strategy of power achieves its aims.

Julian Reid, "Deleuze's War Machine: Nomadism Against the State," *Millennium: Journal of International Studies* 32, no. 1 (2002): 75.

<sup>553</sup> See, for example, Susan Roberts, Anna Secor and Matthew Sparke, "Neoliberal Geopolitics," *Antipode* 35, no. 5 (2003); Stephen Graham, ed., *Cities, War and Terrorism: Towards an Urban Geopolitics* (London: Blackwell Publishing, 2004); Julian Reid, "Architecture, Al-Qaeda, and the World Trade Center: Rethinking Relations Between War, Modernity, and City Spaces After 9/11," *Space and Culture* 7, no. 4 (2004). Similarly, Michael Dillon's analysis of a biopolitics of war has emphasised the role of the network, although this is often as a mobilising 'figure' rather than a concrete spatial apparatus. See, Michael Dillon, "Global Security in the 21st Century: Circulation, Complexity and Contingency," in *International Security Programme/New Security Challenges Programme Briefing Paper 05/02*, 2-3 (London: Chatham House, 2005).

<sup>554</sup> The opposition of 'real' to 'discursive' space is, of course, misleading. As implied in Lefebvre's analysis in particular, concrete space is a productive conjunction of abstract spatial concepts (discourse) interacting with spatial practice.

## The political impetus of exploring space and violence

This is why, at the end of the day, I profoundly disagree when macrosocial romantics tell me that refusal to acknowledge large-scale social structures is self-indulgent or quietist. Indeed, quite to the contrary, the refusal opens up a politics of scaling and size that lies far beyond the conditions of possibility set by the romantic understanding of complexity. But to see this way one needs to sense that there are realities which can only be caught, associatively and indirectly, at the edges of perception ... : that there are things that do not and could never fit the romance between complexity and explicit emergence.<sup>555</sup>

John Law challenges us to locate the political possibilities found in the messy, overlapping, and multiple nature of the world in which we operate. Whereas Neal rejects the use of praxiography to study exceptionalism because “exceptionalism is a much wider problem than can be found through a genealogical analysis of technologies of power alone,” Law breaks down the seeming homogeneity of the problem which we face.<sup>556</sup> This is particularly significant for the field of security studies which, as Neal rightly notes, has been stymied by the “continuing sameness of sovereign power.”<sup>557</sup> Paradoxically, however, Law’s approach (and the approach of material semioticians) has been rarely applied in this area, with scholars shying away from a subject whose connection to the familiar realms of STS seems far-fetched.<sup>558</sup>

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<sup>555</sup> John Law, “And if the Global Were Small and Noncoherent? Method, Complexity, and the Baroque,” *Environment and Planning D: Society and Space* 22, no. 1 (2004): 25.

<sup>556</sup> Neal, “Foucault in Guantánamo,” 41.

<sup>557</sup> Neal, “Foucault in Guantánamo,” 35.

<sup>558</sup> Reid argues that, far from being an exceptional condition of political thought, security (strategy) should simply be thought of as another of those ‘sciences’ which form (and are formed from) the conditions of possibility for our society – that is, as another exercise of power/knowledge. He draws a line of analogy, for example, between Canguilhem’s famous analysis of the reformulated power/knowledge of medicine at the beginning of the modern era, and Foucault’s analysis of

This thesis has located a number of junctures in which an ontological politics of security can be founded. In particular, the US military's self-conscious (partial, often unsuccessful) incorporation (*operationalisation*) of a number of the themes of the alternative real identified above demonstrates the importance of thinking in a nuanced way about security – and the dangers of assuming homogeneity and similitude across an apparatus as large, diverse, and complex as the US military.

These themes – the abandonment of the notion of fixed subjectivity, the obduracy of materiality, and the experimental as a mode of operation – could be taken to demonstrate an ontological shift in the nature of security, along the lines proposed by Bratich:

The New Normal is a *managed insecurity*, an experiment in uncertainty and incessant modification of programs and plans. Deleuze (1977) stresses that even the 'most centralized State is not at all the master of its plans, it is also an experimenter,' and it is not the only experimenter (p. 146). ... Homeland Security's stability into a structure is not only not guaranteed, it is not even the operative principle – its dynamic is more of a distributed destabilization/restabilization network. Secrecy and/as security acts as a deterrent, as enclaved strategy of reassurance, as its own set of experiments in the midst of the New Normal's imperatives.<sup>559</sup>

However, arguments such as Bratich's fall into the trap of "continuing sameness" identified by Neal. Attempts to capture new security arrangements as simple instrumentalisations of a 'control society' or 'networked biopolitics of security' are homogenising and defeatist. Rather, while there is certainly an identifiable shift in the discourse of security, in practice the relationship between war and politics is a more

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Clausewitz's reformulation of war as an extension of politics. Julian Reid, "Foucault on Clausewitz: Conceptualizing the Relationship Between War and Power," *Alternatives* 28, no. 1 (2003).

<sup>559</sup> Jack Bratich, "Public Secrecy and Immanent Security: A Strategic Analysis," *Cultural Studies* 20, no. 4-5 (2006): 507.

complicated one that cannot be captured simply in the context of security discourse.

*The 'real' of security is not equivalent to its discourse.*

The latter half of this thesis, then, utilises the impetus of the first two chapters to question the enactment of military practices, seeking to identify how war is implicated in providing a space for politics – that is, in promoting and engendering difference as well as enabling its repression. The third and fourth chapters, for example, examine how 1<sup>st</sup> Cavalry faced onto a battlespace multiple, engaging textures and senses of the battlespace that had previously been distributed away from command processes; correlating and ultimately mobilising multiplicity to produce a new mode of interaction with the battlespace, one driven by the affectivity of the event. This almost playful mode of approaching war has to be distinguished from the operation of other elements of the US military (often acting, it should be said, contemporaneously in adjacent areas). Stephen Graham argues that:

The inculcation of racialized aggression works rather to obliterate understanding of the real places, and bodies, destroyed by military assault. It is widely recognized that the crude behaviour of the invading Anglo-American forces – search-and-destroy raids, arbitrary arrests, opening fire on demonstrations – was an important factor in stimulating the resistance in Iraq.<sup>560</sup>

If Graham is correct then there is a political importance to identifying practices that are less likely to lead to such destructive outcomes. The affective sense of the encounter promoted by CPOF may, on the one hand, destroy the understanding of 'real places and bodies' by virtue of being a (kind of) simulacrum, but, on the other hand, it does not resonate strongly with the crude and arbitrary behaviour he describes. Rather, orientation to the event leads to a lighter hand (albeit one that controls lightly across more dimensions). Indeed, 1<sup>st</sup> Cavalry's engagement in Sadr

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<sup>560</sup> Stephen Graham, "War and the City," *New Left Review* 44 (2007): 132.

City has been considered one of the few successes of the war, despite their being constantly undermined by the inept political actions of the Coalition Provisional Authority.

This is not to imply that 1<sup>st</sup> Cavalry engaged in a better kind of violence, nor in fact to suggest that it engaged in a 'single' kind of violence at all. As demonstrated in the fifth chapter, attempts to operationalise units as fluidly-constructed points of mobility that emerge in relation to one another (and a standardised background space) were consistently confused and at times haunted by the operation of those things 1<sup>st</sup> Cavalry attempted to exclude. Indeed, one possibility for promoting the enactment of 'better' kinds of violent assemblages (better in that they produce different and better things) is to highlight through critical engagement those things the military tries to make absent when enacting the presence and agency of its troops. One of those aspects, for example, is the interpenetration of the mobile agency of troops with the civilian geographies of the city – the ceaseless movement of Humvees driving civilian cars from their own streets. If appropriately highlighted, the crude behaviour identified by Graham might then be seen as a military liability, leading to its alteration. One of the interesting conclusions of this thesis has been that the US military is more open to change than we might have imagined: operating in a modality of experimentalism leaves it open to change in a manner that would have been incomprehensible in the rigidly demarcated, highly hierarchical apparatus of the Cold War.

### **Finding a way forward for critically engaging violence**

The politics of interference is especially difficult in the area of violence and war. The subject matter is bloody and objectionable. Violence seems to beget more violence, and it is hard to begin to think how the ending of somebody's life, the

shearing off of their limbs, the destruction of their means of living and their social networks, can ever be the subject of productive intervention. Yet to ignore violence's productive potential is to cede the debate before it has begun. As Deleuze and Guattari argue, violence is an integral part of the politically vital assemblages in which we operate. It may ultimately be reterritorialised by power, but it is our duty to make sure that we encourage its operation as a force that promotes our sense of the good.

However, this thesis also shows that any such intervention is subject to the obstinate, reversible, and ultimately experimental nature of violence. There is no 'final' good when it comes to promoting 'this' violence over 'that' – something for which we should perhaps be profoundly relieved, given the difficulties the often pacifistic approaches of critical security studies have in addressing some of the more pointed questions posed by their realist counterparts (What would you do about the Nazis? Rwanda? What about Sudan?). This thesis is an opening volley, and no more than that, in making it possible to think about violence in this way.

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