**The Meaning of Light: Seeing and Being on the Battlefield**

**Abstract**

On the battlefield, light and dark mean much more than the (dis)ability to see. While the darkness of night-time can be used as a tactic, providing cover for personal and territorial defence and attack, it also affects and secures bodies and the spaces they inhabit in other more immediate and intimate ways, recalibrating senses and redefining distance. Light too, can spell both safety and danger on the battlefield, disciplining and controlling its occupants with often asymmetrical power-plays of affect and aggression. Using auto-ethnographic examples of experiences in Iraq in 2003 (based on the poem below), this paper sets out to challenge traditional binaries of light/dark, good/bad and to question the elemental, cultural and technological sovereignty of light and vision in modern battlespaces.

**Keywords**

Light, Dark, Vision, Subjectivities, Military Geographies, Battlefields, Iraq, Autoethnography

**Introduction**

***Light Discipline***

*In a blackout we adjust our sights*

*by touch and cup our smoke against*

*the desert, waiting for the light.*

*At long last the barrel scrapes*

*into place and the night is instantly*

*exposed. I cover my ears and watch.*

*In the distance a fitful city crouches,*

*seared eyes raised to the floating*

*arc above, waiting for the strike.[[1]](#endnote-1)*

This paper started life as a poem[[2]](#endnote-2) (see above). But just as there is precedent in the linking of poetry and geography[[3]](#endnote-3) and of course poetry and war, there is also a certain amount of ‘poetics’[[4]](#endnote-4) inherent in the subject matter. Lightness and darkness have, after all, been enduring creative inspirations for cultural, romantic, religious and artistic discourses. In using the poem as a starting point, therefore, my method will further illuminate these connections while also being critically (self)aware of the structured logics they may construct and perpetuate. I will therefore explore how the cultural and strategic certainties of light and dark become ambiguous in spaces of conflict, where the binaries of light/dark, sight/blindness, safety/danger are challenged by physical and sensory conditions arguably unique to battlefields[[5]](#endnote-5), by culturally embedded views of ‘other’ spaces, and by the often asymmetrical power-plays of military technology and ‘light weapons’. Central to the paper is the concept of ‘light discipline’, the title of the poem, which refers to the British military’s means of controlling excess light in theatres of war. I always found the equivocal nature of the phrase ‘light discipline’ intriguing, suggestive as it is of ways in which light can take on a material agency of its own, to become a tool or weapon in the perception and control of spaces of conflict and the bodies which inhabit them. The events and memories[[6]](#endnote-6) described in the poem, and expanded on below, date from the time I spent with the British Army as a mobilised reservist soldier[[7]](#endnote-7) during the 2003 invasion of Iraq [see Fig 1]. This paper is, therefore, an autoethnographic ‘critically reflexive’[[8]](#endnote-8) reflection of that poem.

According to Ellis, Adams and Bochner,

when researchers do autoethnography, they retrospectively and selectively write about epiphanies that stem from, or are made possible by, being part of a culture and/or by possessing a particular cultural identity.[[9]](#endnote-9)

The poem from which this paper stems was never written with an autoethnographic – or even academic- method in mind; and was originally purely a standalone piece of creative writing. It was only in the process of turning the poem into a paper, first for the Sensing War Conference in London in June 2014 and then for this paper, that I have been forced to accept and critically reflect on the cultural watermarks which inform it as a text. Analysing my own text has also made me question my own memories of events and the reliability of my own ‘evidence’. ‘Does the narrator believe that this is actually what happened to her or him?’[[10]](#endnote-10), ask Ellis et al., and I have to concede that there is a significant degree of poetic license in my representation of events, which is revealing in terms of the ‘cultural identity’ from which I was meant to be representing them. The poetic license I have used, as I explain later, does indeed reveal the cultural asymmetries of my western perspective, but it also touches on very complicated, personal and problematic (for me) sensibilities about my ‘identity’ as a soldier and my ‘credibility’ as an ‘ex-soldier/veteran’, more specifically as a part-time reservist who perhaps never possessed or felt part of a military cultural identity, and who certainly did not ‘belong’ to the unit into which they were drafted. Not only have I appropriated the vision of the citizens of Basra in the poem, but I have also created a experiential ‘we’, from whose perspective to write; a collective perspective I suspect would not be familiar to the soldiers with whom I served.

But it is precisely these subjective layerings which make the autoethnographic method a valuable tool for wider analysis too. Autoethnography is, as Ellis writes, ‘research, writing, story, and method that connect the autobiographical and personal to the cultural, social, and political,’[[11]](#endnote-11) so as well as being a slightly experimental mixture of academic and personal reflection, this paper also provides a useful route in to discuss wider theoretical and political themes of vision, visibility and subjectivity. I will in effect be deconstructing and analysing my own poem, which may be, as both a personal autoethnographic account and an ‘artistic’ representation, a methodologically challenging way in[[12]](#endnote-12), but I hope by this method to develop an alternative ‘perspective’; a view from a self-consciously ‘marked’ body with its own situated, partial, and often flawed fields of knowledge and vision[[13]](#endnote-13). Using this embodied and self-critical analytical approach, I hope to add to, and stitch together, some of the already discipline-spanning literature ranging from geography, war studies, post-colonial and gender theory, to biotechnology, psychology and the arts.

[Figure 1 : AS90 Artillery piece, Basra, March/April 2003 Photo author (and driver’s) own]

Although the title of the paper refers only to the meaning of ‘light’, I will also necessarily be looking at darkness too, the two conditions being as they are, ‘insistently present’ in the other[[14]](#endnote-14). Light can, in this way, be just as ‘partial’ as darkness[[15]](#endnote-15), although I will be suggesting that they are also ‘partial’ in another, more agentially preferential way. In this sense, they can be partial as opposed to ‘impartial’ perhaps, conveying something of the ‘trickery’ which both dark and light can have on senses and spaces, but also the power granted to those who can harness or control such powerful natural forces. Although darkness and light necessarily affect ‘seeing’ and vision, as the title suggests, they also affect ‘being’, so I will also consider how they interact with bodies and spaces in more ontological, multi-sensory and non-representational ways[[16]](#endnote-16).

* **Recalibrating the senses**

I arrived in Iraq during the initial stages of the 2003 invasion, a few days after the first UK troops had crossed the border from Kuwait. At night, we had to operate and function under strict ‘light discipline’, one of a number of precautionary procedures[[17]](#endnote-17) deployed and enforced during the hours of darkness to conceal the location of personnel and equipment. This disciplinary darkness involves a ban on the use of any form of illumination for operational, recreational or functional use, including torch light, matches, and the smoking of cigarettes – the glow of which can be visible several hundred yards away over dark and open spaces. The ‘cupping’ of cigarettes is a way around this, but is still risky - not least for the smell of smoke. In terms of torch-light, coloured, light-reducing filters are provided in some, army-issue equipment, but in reality many soldiers just improvised, inserting red, blue or green translucent sweet wrappers into our own torches to dull the bright white light. In the first two weeks of the conflict, however, light discipline was strictly adhered to and I found myself in the surreal situation of being on guard duty for several consecutive nights with a soldier who I did not recognise when I finally saw his face in daylight. As well as our personal SA80 rifles, at the guard position were also a General Purpose Machine Gun (GPMG) and an AT4 anti-tank missile[[18]](#endnote-18), which I had quite literally to learn my way around by touch. Although it was not pitch dark in the desert, with varying levels of moonglow and starlight, it was impossible to read sight settings and switches, for example, or indeed – in the case of the anti-tank missile – quite hard to tell one end from the other. Thankfully I never had to use these weapons in anger, but this experience highlighted to me how important touch becomes when vision is denied, even in something as ostensibly visually based as a machine gun. On a more corporeal level too, the weapon becomes so much more than what Virilio calls ‘‘the function of the eye’’[[19]](#endnote-19). The personal weapon in particular becomes a phenomenological part of the immediate, constant and intimate spaces to which the individual soldier has access, and is a much more haptic than optic extension of the body[[20]](#endnote-20), even in situations with plentiful light and clear vision. Battlefields can be huge, but the subjective day-to-day – or night-to-night - experiences of them are often within arms-reach, and the geographies of the wider war completely unseeable and ultimately irrelevant to a soldier’s individual experience. In uncontrollable darkness especially, the vast space of the desert suddenly shrinks and fingertips become more useful than maps, or as Derek Gregory might say, cartographies become less important than corpographies.[[21]](#endnote-21)

But it is not only touch which is heightened by the restriction of sight in war. Even before World War 1, futurists such as Luigi Russolo recognised that technological changes in warfare and weaponry were challenging the sovereignty of vision on battlefields in terms of sound too, where artillery barrages were more likely to be heard before they were seen or felt

In modern warfare, mechanical and metallic, the element of sight is almost zero. The sense, the significance, and the expressiveness of noises, however, are infinite.[[22]](#endnote-22)

Although perhaps best known as a pioneering experimental musician, Russolo also tried to express the soundscapes of his own battlefield experiences through his art. His 1926 *Impressions of Bombardment*, with its geometric arcs of colour, light and sound, can be understood as an attempt to visualize sound, while acknowledging the peculiar and interdependent power both sound and vision can have on battlespaces [see Fig 2]. From my own experience, being so close to the often deafening sound of the artillery had its own visceral effect; not only through the pain of unprotected ears, but many of the support vehicles in my Battery had to operate with their windows blown-out by the explosive force of the gun blasts.

[Figure 2: Luigi Russolo (1885-1947), Impressions of Bombardment (Shrapnels and Grenades), 1926, oil on canvas, 103 x 138 cm, Collection of the Comune di Portogruaro.]

* Limited vision through variations of light is, of course, not exclusive to battlefields, and any existence away from, or denial of, the basic comforts and shelter of ‘home’, is hard to sustain. But in a situation of conflict, the added complications can heighten the effects of sensory deprivation or disruption. As Santanu Das writes (about the trenches of World War One):

In an atmosphere of darkness, danger and uncertainty, sights, sounds and even smells are encountered as material presences against the flesh[[23]](#endnote-23).

Das’s words suggest that the multi-sensory disorientation of war in some ways reifies or materializes experiences; the way in which these things are manifested however, is as unexplained, undefined ‘presences’ against the body. While touch and the haptic do become foregrounded with the absence or restriction of vision, this does not necessarily mean that a touch represents a specific object any more than anything ‘seen’ does. Touch, in this example, is less a confirmation, or ‘a way of removing doubt’[[24]](#endnote-24), than the creation of something new. An example of what I am trying to say might come from the use of the word ‘exposed’ in the poem as a reference to the negative imprint of light on the retina, as in a developing photograph. Here, the extreme change from dark to light of the firefight has produced a visceral effect without an object. In the dark, danger and uncertainty of Das’s ‘slimescapes’, touch and other sensations do not therefore guarantee objective certainty, and the body can experience unrepresented, new, ethereal and unexplainable ‘presences’, or can confuse ideas of representations. In the unfamiliar environment of the desert, for example, things can be heard, felt, or half-seen which do not translate into representations based on past experience or cultural knowledge. No sense is going to be able to represent something as-yet-unencountered. Heidegger’s concept of bare sound becomes relevant here; bare sound being the sound itself and not a representation of something known, for example the sound of a car, or in my example in the poem, the sound of the gun barrel preparing to fire. If we extend bare sound to bare sight or bare touch, we can perhaps conceive of the same thing, something ‘unseen’ – a tiny movement, perhaps from the corner of the eye, or a thing touched but not recognized. Just as ‘bare sound’ can only be heard by listening in an abstract, non-representational way, by ‘listen[ing] away from things’[[25]](#endnote-25), part of my military training was learning to ‘see’ movement or shapes by ‘looking the other way’[[26]](#endnote-26).

* Added to this is the potential of the affective mix of darkness, fear and disorientation to play tricks on the mind and to ‘scramble’[[27]](#endnote-27) the senses and ‘recalibrate’[[28]](#endnote-28) cognitive output. The hallucinatory effects of extreme tiredness are well documented, and perhaps compounded by the inhibition of each anchoring sense, which might cause a soldier on guard duty or on a long night-time convoy to ‘see things’ which are not there, but in such extreme conditions, any anchoring ‘certainties’ or ‘confirmations’ which might assist objective representation are themselves compromised. It was, for example, not just the lack of light which convinced me I had been bitten by some kind of exotic creature one night; it was a mixture of unfamiliar sounds and sensations – the strange (to me) animal noises, combined with an unexpected sharp pain, and the subsequent trickle of liquid from my wrist. Here touch did not remove doubt, but conspired with other destabilized senses, to create an entirely false reality[[29]](#endnote-29). Unable to ‘make sense’ of these sensations without vision, my other senses let me down too, bowing to the sensorially untethered vagaries of my imagination. As Tim O’Brien concluded in Vietnam, a lack of vision stimulates imagination, which in turn stimulates fear, so the best soldiers were ‘unimaginative’ ones[[30]](#endnote-30).

But night-time is not the only natural phenomenon to deny vision. Geographical terrain such as mountain ranges or heavy forestry and vegetation can hinder anyone’s unaided line of sight[[31]](#endnote-31). Likewise the weather can also impede visibility. Fog, for example, although less cyclically inevitable[[32]](#endnote-32), arguably less substantial but more mobile and erratic than the darkness of night, has some of the same disorientating effects, for example its ability to ‘confiscate[s] the horizon’.[[33]](#endnote-33) Dust clouds, sand storms and driving rain can all also cause disorientation and even temporary blindness when they cannot be mitigated or controlled, and the ability to do so in contested areas such as battlefields necessarily brings with it distinct tactical advantages. Unfortunately, for many of the British troops present for the 2003 invasion of Iraq it was not just body armour and desert camouflage we lacked. Many soldiers had to wait for supplies of ski-goggles to be sent out from friends or parent units in the UK in order to be able to function and operate in the dusty conditions.

The desert storm which ripped through Iraq in the days following the invasion caused confusion and disruption on strategic as well as personal levels, not only with flying sand, dust and grit, but with the powerful gusts that played havoc with smaller vehicles, camouflage netting and canvas, and whipped many temporary structures from the ground, including the fences of the recently constructed POW camp at Umm Qasr. On the night of the storm, the enormous transit tent in which I was sleeping was uprooted by the wind, and I was woken by a screaming NCO and the chaos of a hundred other soldiers scrambling to find helmets, boots and rifles in the dark. Disorientated and confused, I initially thought we were under attack, but was quickly ordered out into the night to look for escaping prisoners[[34]](#endnote-34). The feeling of fear upon stepping out into the physical and metaphorical unknown of that night is something I will never forget. Armed with three rounds, and a mini-maglight torch with which I could just about see the tips of my toes,[[35]](#endnote-35) I quickly came to realize not only the power which light wields, but that any confidence, safety or securities which its possession might provide can just as easily – and very quickly - be reversed by its dispossession, failure or accidental reflection. It was during this night that I was caught in the arc of a flare which had been deployed to illuminate the POWs; I felt vulnerable and exposed, all of a sudden experiencing the flipside of illuminatory power.

**Distance, space and tactics**

Despite the theoretical importance of the link between light and power[[36]](#endnote-36), which I will discuss later, darkness can hold a power of its own, and can have significant impact on perceptions of scope, distance, depth and direction. The ‘cover of darkness’ has long been a military strategy to move as near as possible to an enemy before attacking them, but getting up close to an enemy or opponent is not always an overtly physically aggressive act. The effect of knowing someone has been close to you or your position without you knowing or seeing them, can be a distinctly psychological tactic. The morning after the storm at Umm Qasr I found an Iraqi army helmet outside the transit tent. In all probability it had been left there by one of our soldiers who had found it elsewhere, but at the time it was an unnerving material violation of what I had (somewhat problematically) considered ‘my’ space.

But the ‘cover of darkness’ is not only a strategy deployed by the (technically more powerful) invader. While an occupying force may be hampered by unfamiliar terrain, an over-reliance on technology which might fail, and the tactical restriction of their modes of vision, the local population can be empowered by their intimate knowledge of space and their ability to operate unassisted within that space. Local knowledge also creates opportunities for resistance and subversion. The Taliban’s use of Night Letters, or *Shabnamah*[[37]](#endnote-37), for example, demonstrates the spatial advantage a local population can achieve at night. Discovered pinned to doors or walls in the morning, these usually anonymous missives have a long history of galvanising or threatening populations into resistance against occupying forces, and their secretive, nocturnal nature is not only spatially intimate and territorial, but allows bodies to blend and slip between civilian/combatant/insurgent roles like a form of camouflage.[[38]](#endnote-38) This darkened resistance is reminiscent of what Tim Cresswell terms the ‘night discourses’ of graffiti, ‘guerrilla semiotics’ and ‘billboard banditry’[[39]](#endnote-39) which can only happen at night, in similarly subversive and clandestine, but much less physically threatening manner.

Taking this further, it could be said that darkness changes the actual status of an area in a political as well as tactical way by weakening the visual hold of the occupier. As Robert Williams suggests, ‘although spanning the same physical area, the spaces of night differ in certain vital ways from the spaces of daylight’[[40]](#endnote-40), and the ability to operate within those spaces, without the luxury of ‘distance,… foresight, and self collection’ becomes, as de Certeau suggests, a kind of tactic of the weak against the strategic vision of the dominant Other.[[41]](#endnote-41) *The Practice of Everyday Life* is surprisingly rich in military theory; the crucial element of which is the relationship between visibility and power. De Certeau’s vision of the city is from the vantage point of the World Trade Centre, and he is fully aware that resistance to power, although hampered by the lack of privileged vision, is still tactically viable if performed ‘under the noses’ of the dominant power. Williams cites Palmer in suggesting that academics looking at power ‘have been slow to understand the significance of night as a transgressive space and time’, a ‘place and space in which the ubiquitous contestations of everyday life were fought out on a terrain that afforded slightly more opportunity for engagement by the oppressed and the exploited.’[[42]](#endnote-42) So darkness perhaps evens out battlefields; those without the power of full vision and the luxury of distance can employ their tactics within the very spaces in which by day they are unable. If we define territory as an expression of a claim on a particular (contested) space, then perhaps in darkness, when the ‘weak’ are more able to act, a battlefield might be ‘deterritorialised’[[43]](#endnote-43), or revert to a geological area of terrain.[[44]](#endnote-44)

* Any nocturnal leveling of the battlefield is however, necessarily threatened by the technologies of artificial, ‘un-natural’ light. Linking back to the poem, the sudden ‘exposure’ of the night sky on the firing of the guns, is also trying to suggest that the dark has something to hide. Despite the cultural and scientific enlightenments of the 18th and 19th centuries, dark spaces and those who occupy them are still suspect, as anyone who has been stopped and searched by the police at night will well know. But when you transfer this being-in-darkness to Afghanistan or Pakistan, for example, where ‘pattern of life’ analysis is now being used for targeting drone strikes, being ‘seen’, ‘caught’ or ‘exposed’ in dark space becomes a matter of life or death..

In the dark it is much harder to judge direction, distance and depth[[45]](#endnote-45), and all are measured in different ways, be it touch, shadow, or horizons which were not so ‘visible’ within the less contrasted clutter of light filled vision. Historically, stars and the moon measured direction and distance, and there is perhaps a certain echo of ‘times past’ in night-time navigation and situational awareness, a return to ‘natural’ and non-technical means.[[46]](#endnote-46) In the dark it is also hard to distinguish friend from foe, ‘and all are apt to be subject to suspicion’[[47]](#endnote-47). The soldier on guard duty at night, for example, will only see a potential enemy body when dangerously close and often the first sign of an approach will be aural and not visual. The classic ‘HALT’, followed by ‘Advance one and be recognised’ is still used today, and highlights the practical difficulties of security-by-night. Crucial to this is that the advancing person has to be within hearing distance, as this phrase – and especially any ensuing exchange of passwords – is conducted in whispers. Also interesting is the reaffirmation of the primacy of sight with ‘advance and ‘be recognised’. While the word ‘recognise’ means to ‘re-know’, and the password system should in effect not be reliant on a visual identification, in practice – as well as in cinema – recognition occurs when the approaching person advances that ‘one step’ and their face comes into focus. This shrinking of dark space has other implications too. I remember being terrified by a regular soldier who warned against sleeping too close to the sides of a tent because Iraqi soldiers would get up close at night-time and slice me open through the canvas. Although this image of the night-time assassin was in hindsight, culturally loaded and inaccurate, there is something scarily intimate about a weapon, for example a knife or bayonet, which can only be deployed at a distance from which you can literally ‘feel’ the presence of your attacker or intended victim, although part of the horror of a knife attack is also its inherently silent nature and the potentially clandestine means by which it becomes manifest[[48]](#endnote-48). Ironically the military term for coming under fire is ‘contact’, a phrase used before anybody has actually ‘seen the enemy’, which would actually seem more fitting for the physical ‘contact before vision’ of a close-quarter knife attack.

The peculiarities of desert battlespaces have particular and perhaps unique geographical and cultural effects. Isla Forsyth, who has written about the historical geographies of camouflage in the war in the Western Desert, suggests, for example, that the open environment of the desert made the North African terrain a ‘safer’ battlefield, where ‘the horizon stretched far and broad, and movement could be easily spied from a distance. Death in the main in the desert did not creep up on you; it was heralded by the booming canons of battle.’[[49]](#endnote-49) It is certainly the case that there are enormous differences between fighting in built up and ‘rural’ areas, each environment possessing its own dangers and its own mitigating tactics and technologies of vision, but the assumption that flat land is safer because enemies will show up against a distant horizon is negated at close distances and in the fluctuating darkness of night. Desert landscape, far from being uniformly flat and featureless, provides its own unique shadows and infamous optical illusions, and crucially, being able to see, whether by virtue of terrain or light, does of course mean that you can also be seen; visibility, therefore, becomes a tactic of dominance and of survival.

Being without light or sight is necessarily restrictive, and in war situations it often means being within physical reach of others. But the lived experience of darkness can also inspire more reassuring, cohesive and positive behaviours. While being ‘blind’ can make you more reliant on others[[50]](#endnote-50), it can also promote ‘intercorporeal experience’[[51]](#endnote-51), enhanced bonding, or community spirit.[[52]](#endnote-52) Darkness, night skies and an ‘existential exposure to the elements’[[53]](#endnote-53) can provoke an almost primal sense of oneness with the universe; an ‘astronomical sublime’[[54]](#endnote-54), the effects of which can be somewhat contradictory, and fall somewhere between feelings of liberation and surrender[[55]](#endnote-55). What Edensor calls ‘the affective power of the star-saturated night’[[56]](#endnote-56) can in some situations even become a means of ‘progressive… communication’[[57]](#endnote-57), connecting people on different sides of the globe who can see the same stars and planets, and have perhaps arranged to look at them at the same time each night.

Organisers of large-scale entertainment and sporting events have long realized the spectacular power of firework displays. As well as uniting people within viewing/hearing distance by provoking a kind of feel-good ‘collective effervescence’[[58]](#endnote-58) and drawing attention to whatever commercial interest might be involved, such displays – especially events like the Olympics opening ceremonies, for example - are also a national show of strength, something which I will shortly discuss in terms of the power of the military spectacle on battlefields. Tim O’Brien’s description of Vietnam gives some idea of the ‘commanding’ power of the martial spectacle:

You stare out at tracer rounds unwinding through the dark like brilliant red ribbons… the great sheets of metal-fire streaming down from a gunship, the illumination rounds, the phosphorus, the purple orange glow of napalm, the rocket’s red glare. It’s not pretty, exactly. It’s astonishing. It fills the eye. It commands you.[[59]](#endnote-59)

As terrible as it might sound now, the Battle of Basra (as it has somehow become known) became routine evening time entertainment on my particular part of battlefield. We became voyeurs of the ‘awful majesty of combat’,[[60]](#endnote-60) or as Paul Virilio describes, ‘spectators of a pyrotechnic fairy-play’ a ‘magical and spectacular’[[61]](#endnote-61) nightly firework display of bombing, burning oil wells, strobing tracer fire and industrial strength illumination of which it was very hard not to be in awe. Yet as I explore later, it is easy to be awestruck by such military shows of strength when there is little chance of being on the receiving end.

**Harnessing light and conquering dark: The asymmetries of vision**

I have very rarely spoken about my experiences ‘in the desert’[[62]](#endnote-62), and it is only recently, when I have found a means of articulating them through academic writing, that I have felt comfortable expressing them at all. This reticence has less to do with any repression of ‘trauma’ (my time ‘at war’ lasted a matter of weeks, and any residual effect was probably as a result of the sudden manner of my (de)mobilization, rather than the actual battlefield experience), but more to do with a deep-felt shame at having been so uncritical of the political situation which necessitated it. It is far beyond the scope of this paper to comment on the rights and wrongs of the invasion, but hindsight has made indelible the residually ‘Empirical’[[63]](#endnote-63), latently orientalist manner and method of war in which I willingly[[64]](#endnote-64) participated. Having looked at how battlefields (and maybe war *per se*) can reverse the sensory sovereignties of vision and light, I will now consider ‘vision’ or enlightenment in a more metaphorical, cultural and theoretical way, paying close critical attention to my own standpoint as an embodied, western soldier[[65]](#endnote-65). The final section will then explore the dangerous cross-over between theory and practise in the ‘weaponisation’ of light and vision on the battlefield.

There is something inherently problematic about the assumption of the primacy of light on the battlefield; an almost conceitful need to unveil the darkness of foreign spaces and gain the dubious power of total vision. Above, I have drawn on the influence of Futurism to illustrate how battlefield technologies began to challenge sensory certainties at the beginning of the 20th Century, but the potential of harnessing the power of nature via electric light was not restricted to battlefields, and its explicitly gendered nuance is captured in Italian futurist Filippo Tommaso Marinetti’s rallying cry to ‘Murder the Moonlight’, by creating ‘three hundred electric moons cancelled with their rays of blinding mineral whiteness the ancient green queen of loves.[[66]](#endnote-66) In poetry too, it is often night which ‘gives birth’ to day; night and darkness are gendered female, and – as we shall see - the desert night doubly so, Arab cities have after all, ‘long been represented by Western powers as dark, exotic, labyrinthine and structureless places’.[[67]](#endnote-67) All this makes Western military attempts to ‘Own The Night’[[68]](#endnote-68) by means of enhanced technology perhaps unintentionally problematic.[[69]](#endnote-69) But I too was caught up in what I can now see is an inherently military orientalist view of where I was. I was ‘in the desert’, hearing scare stories about exotic militia who would slit my throat, or capture, rape and then kill me. The helpless, ‘crouching’ city whose vision I appropriate[[70]](#endnote-70) in the poem, is certainly a product of this cultural imagination.

Rachel Woodward has noted the ‘masculine gaze’ with which the military inscribe meaning on landscape, particularly the British countryside, ‘where seeing and knowing are conflated. Once understood, the features are even renamed; hills and streams become barriers, hedges turn into hideouts.’[[71]](#endnote-71) There are countless examples of a proprietorial renaming of places at British (and other) military sites across the world. This spatial translation is not just a domestic prop for the troops, however, but is distinct and aggressively ostentatious marking of territory. So where do other military environments, or the desert, the jungle fit in with this – basically, when they are not the British rural idyll which through a military gaze can be transformed into such a masculine space. Are desert and jungle spaces exotic, ‘Othered’, even ‘bestial’ because they are harder to gain control over, because they are darker spaces which need to be ‘unveiled for the production of ‘order’ through the ostensibly superior scientific, planning and military technologies of the occupying West’[[72]](#endnote-72)? What I have been trying to achieve through the methodology of this paper is to challenge such embedded and structured ‘views’ by acknowledging and questioning my own relationship with vision and visibility in both physical, sensorial terms and as part of a wider cultural knowledge. In doing so I have to be critical both of how I ‘see,’ and how I am ‘seen’ as a British soldier invading a foreign country, and have to remember that the memories, opinions and imaginations that appear in the poem are nothing but a creative representation of what I saw and felt, on my particular part of the battlefield. I cannot claim objectivity just as vision cannot either; my knowledge is, as Donna Haraway might say, very much situated and embodied.[[73]](#endnote-73)

Haraway’s ‘gaze from nowhere’, perhaps better known as the ‘God Trick’, has become a prescient metaphor in the literature about drone warfare[[74]](#endnote-74). This unmatchable (and irredressible) aerial surveillance is a vital biopolitical means of control over the populations of areas obfuscated by their apparently non-normative geographies, cultures, or ‘tribal’ administrations. The ‘desert’, as Forsyth suggests[[75]](#endnote-75), falls victim to the same kind of ‘militant geography’ that Clayton identifies in ‘the tropics’[[76]](#endnote-76). Both become opaque spaces that are imaginatively populated with the deliberately clandestine, sinister and dangerous ‘Other’. The objective vision of what Denis Cosgrove called the ‘Apollonian Eye’[[77]](#endnote-77) can, however be restored, with the power of light. The asymmetrical power of this ‘imperial gaze’[[78]](#endnote-78) is perhaps nowhere more ‘visible’ than in the naming of one of the US army’s most extensive drone surveillance platforms. The vision of ‘Gorgon Stare’, a system which can see ‘whole cities at a time’, is mythologically and empirically unreciprocal; all who dare to look back are turned to stone.

**Light Weapons**

In architectural terms, light is often considered as much of a ‘building material’ as concrete, steel and glass, and, as Thrift and others have noted, it is used as an ‘affective tool’ in the make-up of spaces through ‘landscape engineering’[[79]](#endnote-79). Light, and the vision it gifts, can therefore been seen as possessing similar material agency to physical methods of control such as walls or fences, or – when used as a weapon – as rifles or bombs. Light as a means of spatial and bodily control, or ‘subjection through illumination’[[80]](#endnote-80), has perhaps been best illustrated by the back-lit Panopticon. It is easy to see why it is another metaphor used so frequently in the current debates around drone warfare and aerial surveillance, although Eyal Weizman has also recently explored theoretical concepts of vision, space and power in other more grounded conflict zones.[[81]](#endnote-81)

From the visual subterfuge of camouflage, to the physiological and psychological affects of Shock and Awe, visible and infrared target identification, and heavily regulated ‘blinding’ weapons, the control and manipulation of light has become an increasingly important component of the modern military arsenal. In terms of camouflage, Matthew Wraith has written on the ‘corruption of sight’ caused by the application of ‘Dazzle’ artwork to military ships and vehicles at the start of the 20th Century, and how such methods can lead to ‘the corruption of rational order in general’. Wraith continues:

Finally, this confounding of rationality brings with it an associated sense of a breakdown in moral and civic order: light at a dazzling intensity pierces through the regulations governing the modern individual and the modern city[[82]](#endnote-82),

suggesting that sensory destabilization – even from something as apparently ‘innocent’ as camouflage, can have serious societal and ontological consequences, something also apparent in the ostensibly more ‘aggressive’ tactic of Shock and Awe. The 1996 US DoD funded paper ‘Shock and Awe: Achieving Rapid Dominance’, which is the definitive official document on the subject, states that the ‘effects’ of Shock and Awe

mean literally ‘turning on and off’ the ‘lights’ that enable any potential aggressor to see or appreciate the conditions and events concerning his forces and, ultimately, his society.[[83]](#endnote-83)

* The authors listed nine examples of Shock and Awe, of which the fifth, the British ‘SAS method’[[84]](#endnote-84) employs the use of sudden and excessive noise and light (for example a stun grenade, or ‘flash-bang’) in order to:

deprive the adversary of all senses, and therefore to disable and disarm. Without senses, the adversary becomes impotent and entirely vulnerable[[85]](#endnote-85).

Despite the authors of the document going on to discuss the merits of a ‘high altitude nuclear detonation’, in reality and in popular parlance, the term ‘Shock and Awe’ has come to mean more of a demoralizing[[86]](#endnote-86) ‘show of strength’[[87]](#endnote-87) rather than an attack in itself, although the use of ‘white phosphorous’ to provide cover and confusion in an attack can of course have horrific physical consequences. The aggressive use of light in the form of lasers has, however been used controversially in war[[88]](#endnote-88), although is now controlled by the 1995 Geneva Protocol on Blinding Laser Weapons, which bans laser weapons being used for the *sole purpose* of causing permanent blinding. Non-blinding infrared and ‘visible’ lasers, known as ‘dazzlers’, are permitted under the Protocol, and are used as security devices and deterrents by both military and civilian actors[[89]](#endnote-89). The technology company Thales has been developing the GLOW system for this market, a Green Laser Optical Warner marketed to the military as ‘a warning backed up with lethal force… [that] will get anyone’s attention whatever language they speak’[[90]](#endnote-90), surely a telling insight into the product’s ‘target’ market whether home or abroad.

[Figure 3: James Bridle ‘Light of God’ (2012) Creative Commons www.flickr.com/photos/stml/8122855101]

There are many examples of surface to air lasers causing havoc to air traffic control systems and civilian law enforcement, but in a war setting, they can be used to pinpoint targets from above, a process which the US military has dubbed the ‘Light of God’. The devastating power-play involved in this divine nickname has been captured by ‘Drone artist’ James Bridle, who has ‘reconstructed’ the ‘Light of God’ using a background photograph of the Iraqi desert. The artwork is accompanied by a quote from a drone operator ‘calling in’ a hellfire missile strike to a location in Afghanistan or Iraq:

We call it in, and we're given all the clearances that are necessary, all the approvals and everything else, and then we do something called the Light of God - the Marines like to call it the Light of God. It's a laser targeting marker. We just send out a beam of laser and when the troops put on their night vision goggles they'll just see this light that looks like it's coming from heaven. Right on the spot, coming out of nowhere, from the sky. It's quite beautiful.[[91]](#endnote-91)

* The Royal Artillery unit I served with in Iraq was (and still is) equipped with AS90 artillery pieces which, as well as high explosive ‘bomblet’ rounds, also fired illumination rounds, known as ‘lumes’, a kind of giant firework on a parachute, which hung in the air above the city of Basra and usually signaled an imminent artillery barrage. Having been caught one night in the beam of a flare myself, I was always struck by their affective power, and how those affects acted as ‘projectiles’, or ‘weapons’[[92]](#endnote-92), making the ensuing bombardments seem almost unnecessary, the objective of spatial control and psychological damage having surely already been achieved with the deployment of such aggressive illumination. This is, of course, what I had been trying to convey in the poem with the ambiguity of the word ‘discipline’, and while I acknowledge that the effect of this illumination on the people of Basra was perhaps only in my culturally blinkered imagination, the military intention is strikingly clear.
* The British Army Training manual states that there are eight permitted uses for the firing of white light illumination rounds by the Artillery. Most of these are part of a process of target identification and engagement, or troop movements, but 6th on the list specifically allows light to be used to ‘harass the enemy’[[93]](#endnote-93). Light therefore becomes a tool independent of process, a weapon in its own right and with its own agency, its power, much like the sound bombs used by the Israeli Air force in Gaza Strip in 2005 is, according to Goodman, in the creation of

a climate of fear through a threat that was preferably nonlethal yet possibly as unsettling as an actual attack. Fear induced purely by sound effects, or at least in the undecidability between an actual or sonic attack, is a virtualized fear. The threat becomes autonomous from the need to back it up. And yet the sonically induced fear is no less real.[[94]](#endnote-94)

What both these examples show is how light can be used to aggressively ‘control the environment’, a kind of superhuman divine harnessing and simulation of the elemental by the technical, particularly all the worst and scariest elements of nature. Derek Gregory quotes one US drone operator as admitting that ‘Sometimes I felt like a God hurling *thunderbolts* from afar’[[95]](#endnote-95).

But apart from aerial surveillance, light weapons and targeting, the British military have also been testing new ways to turn the most basic, and elementally certain of military manouevres - the attack at dawn – on its head. Dawn and dusk have long been exploited as the vestigial Achilles heels of the battlefield clock, but recently experiments have included attaching infrared cyalumes (chemical glow-sticks) to a soldier’s webbing that are visible only to those with advanced infrared night vision equipment.[[96]](#endnote-96) This means that the military are no longer slave to the light, and can now launch attacks in pitch darkness, the commander being able to see the location and formation of their troops better than in broad daylight, providing of course that the other side do not have access to the same technologies. Western militaries have been developing Night Vision Technology since World War Two, trying to emulate the ‘natural’ biological means by which animals such as cats see in the dark. Night Vision Goggles, once based around thermal imaging alone, are now being used increasingly in conjunction with infrared lasers, as discussed above, cyalumes, and flares of the type fired by the AS90s in Basra. Research is also currently being carried out to transfer NVG to contact lenses made of the ultrathin material Graphene[[97]](#endnote-97), which would make them far more effective and wieldy than the type of NVGs currently used in Special Ops, for example. It is currently a controversial subject[[98]](#endnote-98), but it was NVGs, specifically four-tube panoramic NVGs, which enabled US Navy seals to execute their attack on Osama Bin Laden’s compound in Pakistan in 2013, although questions remain as to how much of this ‘assisted vision’ was used to actually identify their target before they killed him. Day or night vision targeting and surveillance, with or without infrared assistance, does not provide the 20/20 eye-contact vision which was perhaps imagined on the drafting of the Geneva convention, several fundamental tenets of which rely on the visual identification of civilian/combatant by means of their clothing (i.e. uniform) or the bearing of arms.

**Conclusion**

What I have discovered through writing this paper, is that the apparently small-scale, corporeal, sensory effects/affects on and through which the conditions of light and dark operate are perhaps surprisingly[[99]](#endnote-99), but nevertheless, intrinsically, linked to the wider discourses of vision, security and power which inhabit spaces of conflict. All, it seems, are shot through with technologically asymmetric, and culturally entrenched Otherings of place, space and bodies. I might here return to the poem, a close reading and critical analysis of which begins from one person’s experience in a particular part of a particular place, but which has been a means to show how lightness and darkness have disciplinary uses and consequences not only for individual bodies in physical spaces, but also in wider social, cultural and political contexts. But this embodied method might also suggest a cautionary lesson in terms of what light and vision ‘mean’ in spaces of conflict.

[Figure 4: Illustration from Liddell Hart’s ‘Man in the Dark Theory’ 1921, p. 4.]

In November 1920, First World War veteran and military theorist Captain Basil Liddell Hart presented his ‘Man in the Dark’ Theory of Infantry Tactics to the Royal United Services Institute in Whitehall, London. Liddell Hart’s theory was based on the actions necessary to overpower an adversary in the dark or when blindfolded. What is interesting is that his theory is based on haptic, close-quarter, metaphorically corporeal rather than visual capacities, which he saw as the most efficient, and more importantly, the most ‘economical’ (in terms both of weaponry and lives) way to fight and therefore to secure territory. Based around the perhaps more reliable securities of touch, Liddell Hart’s work was very much a product of the brutality of the First World War and his theoretical reliance on senses other than sight becomes highly pertinent when compared to the technologically enhanced visual nature of modern war. Perhaps we might here compare this more sensorially democratic and pragmatic method with what Haraway might call the ‘unregulated gluttony’[[100]](#endnote-100) of the ‘scopic regimes’[[101]](#endnote-101) on which modern war has become dependent. From my own situated (and necessarily partial) knowledge and experience, if we continue to insist on the ‘irredressible’ power of light and vision (both physical and metaphorical), it might seem that an over-reliance on the sensory system of ‘seeing’ from ever more abstracted and ‘unmarked’ vantage points, without acknowledging both the potentially subverting power and tactical efficacy of non-visual proximity is resulting in just the excesses of collateral destruction and waste which Liddell Hart was trying to eradicate post WW1. Scaling the analysis right back to a (wo)man in the dark is therefore not only a useful method, but should perhaps be a tactical necessity.

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**Biographical Note**

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1. P. Thornton, ‘Light Discipline’, *The Next Review*, No.2 (The Next Review, London, 2013), p.23. [↑](#endnote-ref-1)
2. First imagined during a Critical War Studies workshop at University of Sussex 11/11/2013. [↑](#endnote-ref-2)
3. T. Cresswell, ‘Geographies of poetry/poetries of geography’, *Cultural Geographies*, *21*(1), 2014. [↑](#endnote-ref-3)
4. M. Bille & T. F. Sørensen, ‘An Anthropology of Luminosity The Agency of Light’, *Journal of Material Culture*, *12*(3), 2007, p.268. [↑](#endnote-ref-4)
5. for extensive recent work challenging these binaries in other areas see B. Gallan, ‘Becoming Crepuscular: rethinking the human relationship to day and night’, PhD thesis (Wollongong 2014) and C.R. Gibson & B. Gallan, ‘New dawn or new dusk? Beyond the binary of day and night’, *New dawn* 43, no. 11, 2011, pp. 2509-2515. [↑](#endnote-ref-5)
6. Perhaps not the same thing. [↑](#endnote-ref-6)
7. As a Lance Corporal in the Royal Logistics Corps (RLC), my primary function was driving DROPS trucks. I was drafted into the Royal Artillery (3RHA) as a replacement driver to transport artillery shells and equipment to the AS90 guns. At the time of my mobilisation the Fire Brigade was on strike, which meant that many regular army HGV drivers had been kept in the UK to drive ‘Green Goddess’ military fire-trucks as emergency cover, and were unavailable for deployment in Iraq. [↑](#endnote-ref-7)
8. D. Butz, ‘Autoethnography as Sensibility’, in D. DeLyser, S. Herbert, S. Aitken, M.Crang, L. McDowell (eds.), *The SAGE Handbook of Qualitative Geography,* (SAGE, 2009), p.145.  [↑](#endnote-ref-8)
9. C. Ellis, T.E. Adams & A.P. Bochner, ‘Autoethnography: An Overview’, *Historical Social Research*, vol. 36, no. 4 (138), 2011, p. 276. [↑](#endnote-ref-9)
10. Ellis et al., *Autoethnography*, p.282. [↑](#endnote-ref-10)
11. C. Ellis, *The ethnographic I: A methodological novel about autoethnography*, (Rowman Altamira, 2004). p.xix. [↑](#endnote-ref-11)
12. N.J. Morris, ‘Night walking: darkness and sensory perception in a night-time landscape installation’, *cultural geographies*, *18*(3), 2011, pp. 315-342. [↑](#endnote-ref-12)
13. see D. Haraway, ‘Situated knowledges: The science question in feminism and the privilege of partial perspective’, *Feminist studies*, 1988, pp. 575-599. [↑](#endnote-ref-13)
14. A. Vidler, *The architectural uncanny: essays in the modern unhomely*, (MIT Press, 1994), p.172.  [↑](#endnote-ref-14)
15. Morris, *Nightwalking*, p.316. [↑](#endnote-ref-15)
16. For critical materialist discussion of the human in war see C. Holmqvist, ‘Undoing War: War Ontologies and the Materiality of Drone Warfare’, *Millennium-Journal of International Studies*, *41*(3), 2013, pp. 535-552. [↑](#endnote-ref-16)
17. e.g. ‘Sound Discipline’. [↑](#endnote-ref-17)
18. at the time these types of weapons would rarely have been encountered by Territorial Army soldiers, especially ones (like me) from less ‘warry’ parent units such as the RLC. [↑](#endnote-ref-18)
19. P. Virilio, *War and cinema: The logistics of perception* (Verso, 1989), p.20. [↑](#endnote-ref-19)
20. J. Hockey, ‘‘Switch on’: sensory work in the infantry’, *Work, Employment & Society,* 23(3), 2009, p.482. [↑](#endnote-ref-20)
21. D. Gregory, ‘Gabriel’s Map: Cartography and Corpography in Modern War’, (2013), accessible at www.geographicalimaginations.com [↑](#endnote-ref-21)
22. L. Russolo, *The art of noises*, (Pendragon Press, 1986), p.49. [↑](#endnote-ref-22)
23. S. Das, *Touch and intimacy in First World War literature*, (Cambridge University Press, 2005). [↑](#endnote-ref-23)
24. K. Hetherington, ‘Spatial textures: place, touch, and praesentia’, *Environment and planning a*, *35*(11), 2003, p. 1941. [↑](#endnote-ref-24)
25. M. Heidegger, ‘The Origin of the Work of Art’, in D. F. Krell (ed.) *Basic Writings: from* Being and Time *(1927) to* The Task of Thinking *(1964)*. (San Francisco: Harper Collins, 1977), pp.151-2. [↑](#endnote-ref-25)
26. To identify people walking towards you in the dark it is far more effective to look elsewhere, training which was also extremely useful in my police career. [↑](#endnote-ref-26)
27. D. Gregory, *The Everywhere War*, (forthcoming 2014). [↑](#endnote-ref-27)
28. Morris, p. 315. [↑](#endnote-ref-28)
29. It turned out to be a ‘nick’ from a razor blade sticking out of someone’s rucksack. [↑](#endnote-ref-29)
30. T. O'Brien, *The things they carried*, (Houghton Mifflin Harcourt : 2009) [↑](#endnote-ref-30)
31. see Gregory ‘Natures of War’ in *The Everywhere War* (forthcoming 2014) [↑](#endnote-ref-31)
32. There are exceptions in the hemispheres, of course. [↑](#endnote-ref-32)
33. C. Martin, ‘Fog-bound: aerial space and the elemental entanglements of body-with-world’, *Environment and Planning-Part D*, *29*(3), 2011, p.454. [↑](#endnote-ref-33)
34. I certainly didn’t see any, if there were, and reports suggest that Iraqis were queuing up to get in, rather than out. [↑](#endnote-ref-34)
35. The regular officers who had briefed us before crossing into Iraq had refused to issue ammunition. The 3 rounds I had were supplied by a sympathetic Cook-Sergeant at Umm Qasr. [↑](#endnote-ref-35)
36. e.g. Foucault’s work on Bentham’s Panopticon. [↑](#endnote-ref-36)
37. T.H.Johnson, ‘The Taliban Insurgency and an Analysis of Shabnamah (Night Letters)’, *Small Wars & Insurgencies*, *18*(3), 2007, pp. 317-344. [↑](#endnote-ref-37)
38. I. Forsyth, ‘Designs on the desert: camouflage, deception and the militarization of space’, *cultural geographies*, *21*(2), 2014, p.262. [↑](#endnote-ref-38)
39. T. Cresswell, ‘Night discourse: producing/consuming meaning on the street’, *Images of the street: Planning, identity and control in public space*, 1998, pp. 268-279. [↑](#endnote-ref-39)
40. R. Williams, ‘Night Spaces Darkness, Deterritorialization, and Social Control’, *Space and Culture*, *11*(4), 2008, p.521. [↑](#endnote-ref-40)
41. M. De Certeau, *The Practice of Everyday Life*, (U of Minnesota Press :1998), p.37. [↑](#endnote-ref-41)
42. B.D. Palmer, *Cultures of darkness: Night travels in the histories of transgression*, (Monthly Review Press: 2000), p.454. [↑](#endnote-ref-42)
43. Williams, p.515. [↑](#endnote-ref-43)
44. S. Elden, ‘Land, terrain, territory’, *Progress in Human Geography*, *34*(6), 2010, pp. 799-817. [↑](#endnote-ref-44)
45. T. Edensor, ‘Reconnecting with darkness: gloomy landscapes, lightless places’, *Social & Cultural Geography*, *14*(4), 2013, p. 457. [↑](#endnote-ref-45)
46. Edensor, *Reconnecting,* p. 463. [↑](#endnote-ref-46)
47. T. Edensor, ‘The Gloomy City: Rethinking the Relationship between Light and Dark’, *Urban Studies*, 2013, p.3. [↑](#endnote-ref-47)
48. see J. Bourke, *An intimate history of killing: Face-to-face killing in twentieth-century warfare*. (Basic books :1999), pp. 79-80. [↑](#endnote-ref-48)
49. Forsyth, p.253. [↑](#endnote-ref-49)
50. See Hetherington, *Spatial textures.* [↑](#endnote-ref-50)
51. Edensor, *Reconnecting,* p. 437.  [↑](#endnote-ref-51)
52. C. Yuill, ‘Emotions After Dark-a Sociological Impression of the 2003 New York Blackout’, *Sociological Research Online*, *9*(3), 2004. [↑](#endnote-ref-52)
53. A. R. Sánchez, ‘Shadow and light in the desert’, *Review: Literature and Arts of the Americas,* 30.55, 1997, p. 63. [↑](#endnote-ref-53)
54. O. Dunnett, ‘Contested landscapes: the moral geographies of light pollution in Britain’, *cultural geographies*, 2014, p.6. [↑](#endnote-ref-54)
55. Morris, p.316. [↑](#endnote-ref-55)
56. Edensor, *Reconnecting*, p.448. [↑](#endnote-ref-56)
57. Edensor, *Reconnecting*, p.446. [↑](#endnote-ref-57)
58. Originally published in 1912, see E. Durkheim, *The Elementary Forms of the Religious Life*, (Courier Dover Publications : 2012) [↑](#endnote-ref-58)
59. O'Brien, *Things, p.77.* [↑](#endnote-ref-59)
60. O’Brien, *Things*, p.77. [↑](#endnote-ref-60)
61. Virilio, p.70. [↑](#endnote-ref-61)
62. An inherently problematic term, as I will show, but which I have caught myself using several times. [↑](#endnote-ref-62)
63. I use ‘Empirical’ here as an etymological play on words, questioning the ‘empirical’ truths of ‘Empire’. [↑](#endnote-ref-63)
64. It was a compulsory call-up, but there were ‘ways and means’ to get round it, which some reservists did employ. [↑](#endnote-ref-64)
65. I am still uncertain what (if any) effect being a reservist soldier or a female soldier had on my experiences of war. I suspect that being a female reservist is very different to being a regular female soldier, but such intersectional intricacies, while interesting, are certainly beyond the scope of this paper. [↑](#endnote-ref-65)
66. F. T. Marinetti, ‘Let’s Murder the Moonshine’ (1909), in *Let’s Murder the Moonshine: Selected Writings,* ed. and trans. R. W. Flint (Los Angeles: Sun and Moon Press, 1991), p.59. [↑](#endnote-ref-66)
67. S. Graham, ‘Cities and the ‘War on Terror’. *International Journal of Urban and Regional Research*, *30*(2), 2006, pp. 256-7. [↑](#endnote-ref-67)
68. <http://news.bbc.co.uk/1/hi/technology/8363411.stm> [↑](#endnote-ref-68)
69. Also of interest here are the feminist dynamics of the ‘Reclaim the Night’ events. [↑](#endnote-ref-69)
70. Haraway serious danger of romanticizing and appropriating the vision of the less powerful [↑](#endnote-ref-70)
71. R. Woodward, 'It's a Man's Life!': Soldiers, masculinity and the countryside’, *Gender, Place and Culture: A Journal of Feminist Geography*, *5*(3), p.290. [↑](#endnote-ref-71)
72. Graham, pp. 256-7. [↑](#endnote-ref-72)
73. D. Haraway, ‘Situated knowledges: The science question in feminism and the privilege of partial perspective’, *Feminist studies*, 1988, p.581. [↑](#endnote-ref-73)
74. See Gregory. [↑](#endnote-ref-74)
75. Forsyth, p.251. [↑](#endnote-ref-75)
76. D. Clayton, Militant tropicality: war, revolution and the reconfiguration of ‘the tropics’, *Transactions of the Institute of British Geographers doi*, *10*, 2012. [↑](#endnote-ref-76)
77. D.Cosgrove, *Apollo's Eye: a cartographic genealogy of the earth in the western imagination*, (JHU Press: 2003), p.1. [↑](#endnote-ref-77)
78. C.Harris, ‘The Omniscient Eye: Satellite Imagery,’ Battlespace Awareness,’ and the Structures of the Imperial Gaze’, *Surveillance & Society*, *4*(1/2), 2002. [↑](#endnote-ref-78)
79. N. Thrift, ‘Intensities of feeling: towards a spatial politics of affect’, *GeografiskaAnnaler, Series B 86 (1)*, 2004, pp. 57–78. [↑](#endnote-ref-79)
80. M. Foucault, *Discipline and punish: The birth of the prison*, (Random House LLC 1977), p.154. [↑](#endnote-ref-80)
81. E. Weizman, ‘Walking through walls’, *Radical Philosophy*, *136*, 2006, pp. 8-22.  [↑](#endnote-ref-81)
82. M. Wraith, ‘Din, dazzle and blur : noise, information and the senses in early twentieth-century society and modernist culture’, PhD thesis (Birkbeck 2011), p.144 [↑](#endnote-ref-82)
83. H.K. Ullman, J.P. Wade, L.A. Edney, F.M. Franks, C.A. Horner, J.T. Howe & K. Brendley, *Shock and awe. Achieving rapid dominance*. (NATIONAL DEFENSE UNIV WASHINGTON DC 1996) p.26 [↑](#endnote-ref-83)
84. As used in the Iranian Embassy siege in London in 1980. [↑](#endnote-ref-84)
85. Ullman, p.33 [↑](#endnote-ref-85)
86. see B. Anderson, ‘Morale and the affective geographies of the ‘war on terror’’, *Cultural Geographies*, *17*(2), 2010, pp. 219-236. [↑](#endnote-ref-86)
87. see, for example http://www.telegraph.co.uk/news/worldnews/middleeast/iraq/9933587/The-myth-of-shock-and-awe-why-the-Iraqi-invasion-was-a-disaster.html on the ‘myth’ of Shock And Awe in Iraq. [↑](#endnote-ref-87)
88. Falklands [↑](#endnote-ref-88)
89. <http://www.telegraph.co.uk/news/uknews/crime/8949060/Police-to-test-laser-that-blinds-rioters.html> [↑](#endnote-ref-89)
90. <http://www.wired.co.uk/news/archive/2010-08/09/glow-laser> [↑](#endnote-ref-90)
91. Omer Fast’s 2011 film ‘Five Thousand Feet is Best’. [↑](#endnote-ref-91)
92. G. Deleuze & F. Guattari, *1,000 Plateaus: Capitalism and Schizophrenia*, *(Minneapolis: University of Minnesota Press,* 2003). [↑](#endnote-ref-92)
93. Artillery Training Volume III: Field Artillery, Ministry of Defence. [↑](#endnote-ref-93)
94. S. Goodman, *Sonic warfare: Sound, affect, and the ecology of fear*, (Cambridge, MA: MIT Press, 2010), p.xiv. [↑](#endnote-ref-94)
95. Gregory, *View*, p.192 [↑](#endnote-ref-95)
96. Interview with Battle Group Commander, personal correspondence, 03/06/2014. [↑](#endnote-ref-96)
97. <http://www.nature.com/nnano/journal/v9/n4/full/nnano.2014.31.html> [↑](#endnote-ref-97)
98. <http://www.esquire.com/features/man-who-shot-osama-bin-laden-0313> [↑](#endnote-ref-98)
99. P. Adey, ‘Airports, mobility and the calculative architecture of affective control’, *Geoforum*, *39*(1), 2008, p.439. [↑](#endnote-ref-99)
100. Haraway, p.581 [↑](#endnote-ref-100)
101. Gregory, *View*, p.190. [↑](#endnote-ref-101)