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Citation for final published version:

Allbeson, Tom and Oldfield, Pippa 2016. War, photography, business: new critical histories. *Journal of War and Culture Studies* 9 (2) , pp. 94-114. 10.1080/17526272.2016.1190203

Publishers page: <http://dx.doi.org/10.1080/17526272.2016.1190203>

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NB *This is a pre-publication version of an article co-authored with Pippa Oldfield, 'War, Photography, Business: New Critical Histories' published in the Journal of War and Culture Studies (2016).*

Please reference the published version:

<http://dx.doi.org/10.1080/17526272.2016.1190203>

War, Photography, Business: New Critical Histories

Tom Allbeson and Pippa Oldfield

ABSTRACT

This article offers a critique of conventional histories of war photography, which have tended to focus on the biographies of individual renowned photojournalists or particular aesthetically striking images of conflict. We argue the need for an expanded conception of war photography which encompasses not only reportage, but numerous other uses in wartime of photographic images and technologies, from reconnaissance imagery to the application of innovations made by photographic companies in the development of weaponry and other military hardware. In parallel, we argue for an appreciation of the broader network of actors, organisations and institutions relevant to war photography in this sense—a network encompassing not only the military and the state, but also photographic companies, weapons manufacturers, individual entrepreneurs, media companies and the public. We proffer the term 'war photography complex' as shorthand for this broad cultural phenomenon and aim to prompt a broader sustained engagement with the reciprocity between, on the one hand, the strategy and prosecution of war and, on the other hand, photographic practices and products. The case is also made for the contribution of business history (encompassing both the histories of companies and industry) to examining war photography, acting as a much-needed supplement to methodologies from cultural history and photography studies. Finally, discussing war photography from the Second World War to the Cold War, we articulate the key research questions which constitute this proposed research agenda.

* * * * *

Ahead of the D-Day landings on 6 June 1944, there was a concerted effort to conceal the preparations taking place in southeast England. Subsequently, this effort was matched by an equal determination to render the invasion visible to the public in the Allied nations—a task facilitated by the accredited photographers who had been embedded in the military to cover the invasion. Prominent amongst these visualisations were Robert Capa's photographs of soldiers landing on Omaha Beach, northwest of Bayeux. Capa's images appeared in *Life* magazine on 19 June 1944.[1] Since then, his powerful images—especially that of a GI wading ashore under fire—have become icons both of that momentous day, and of the genre of war photography.

It is illuminating to compare Capa's photographs with an image that also featured in a 1944 issue of *Life* [2]. The image, which features in a full-page advertisement for Boeing entitled 'Bulls-eye', is an aerial reconnaissance photograph depicting an aircraft flying over Tempelhof Airport in central Berlin. The accompanying text states that 'pin-point' attacks of German-occupied Europe have 'paved the way for the greatest invasion of all history by destroying much of the enemy's ability to wage war'. Unlike the Capa D-Day story, this photo-text is neither a news feature nor a product of photojournalism. It is an example of wartime corporate advertising—that is, marketing material which seeks to build up the public image of a corporation, rather than to sell a specific product. An unattributed reconnaissance photograph of a Boeing B-29 Super Fortress has been repurposed, presenting the military aircraft as you might the latest Chevrolet or Packard. In this long-running campaign using many photographs of aircraft in action, the efforts of the Boeing Company are aligned with the national war effort. The Boeing brand is presented as the manufacturer of precision machinery synonymous not only with reliability, but also with power and patriotism.

Although the Boeing advertisement and the Capa D-Day story circulated in the same publishing format—the popular mid-twentieth-century photo-magazine—the two examples suggest the extraordinary diversity of photographic material produced, circulated and consumed in wartime, encompassing propaganda, advertising, and reconnaissance, as well as photojournalism. The term 'war photography', however, is usually used only to refer to a relatively narrow corpus of images, typically denoting reportage- or documentary-style images, taken by professional photojournalists at the frontline and disseminated to a civilian populace at home via the media. By contrasting Capa's conventional news photographs of combat with the multi-purpose

aerial image deployed by Boeing, a more complex picture is revealed. The photographically-illustrated advert opens onto a much broader field of image production, suggestive of myriad private organisations and government agencies (incorporating military and non-military individuals) that create, deploy and consume photographic technologies and images in wartime. The Boeing advert points both to a range of industries which develop, manufacture or market products and technologies, and to a public—conceived variously as citizens, spectators, consumers—exposed to a range of imagery and products made in times of conflict. Such complexity, it seems to us, remains relatively unstudied.

Popular histories of war photography, from Jorge Lewinski's *The Camera at War* (1986) to Paul Brewer's *Shots of War* (2010), rehearse two interlinked narratives. The first emphasises the role of pioneering individuals whereby a handful of courageous and creative photographers (typically men) are singled out as the progenitors and innovators of the genre, creating aesthetically striking icons of conflict. The second narrative emphasises the role of technological development, suggesting that the progressive refinement of photographic technology is an external driver advancing and influencing the practice of war photography, facilitating the neutral and objective documentation of conflict for the historical record. Thus, conventional histories assume a specific teleology wherein the development of war photography entails chronological progression (via successive conflicts and facilitated by ever-improving technology) towards maximum realism and immediacy in depicting telling moments of combat (i.e. moments of conflict, destruction, death, impact, etc.) as instantiated in the work of a few remarkable practitioners of the genre. The ultimate function of war photography, in this conception, is a visually accurate and emotionally powerful historical record of conflict. [3] The outcome, following logically from these assumptions, is that the proper focus of the history of war photography is the corpus of aesthetically striking and widely circulated photographs made using this technology by those individuals.

Since the 1990s, however, scholarship has moved beyond this restrictive conception to explore other dimensions of war photography. The growing field of photography studies—an interdisciplinary research area developing since the 1980s and informed by both cultural studies and visual studies—now encompasses a range of work challenging the notion of photographic objectivity in general, and positivist or celebratory histories of war photography in particular.[4] One important strand of research has examined questions of veracity, censorship, propaganda and public

opinion (cf. Taylor, 1991; Roeder, 1995; Brothers, 1997). Another principal concern has been the problem of the 'iconic photograph' and its role in shaping postwar national identities or collective memories (cf. Hariman & Lucaites, 2007; Noble, 2010). A further central line of enquiry considers the moral responsibilities of the viewer of conflict imagery (cf. Sontag, 2003; Reinhardt et al., 2007; Batchen et al, 2012; Azoulay, 2012; Campbell, 2014; Kennedy et al., 2014).[5] Notwithstanding the rigour, value and importance of this collective scholarship, it is still largely focused on the conception of war photography as a body of frontline images taken by photojournalists and circulated in the mass media.

Recent scholarship on war photography has not engaged to the same degree with the much broader history regarding the development and deployment of photographic technologies and images not just to represent, but to prosecute conflict. A key contribution in this regard is Paul Virilio's reflection on vision and conflict, *War and Cinema: The Logistics of Perception* ([1989] 2009), which argues that mastery of sight, visibility and invisibility has been central to the conduct of warfare. From telescopes and maps, to aerial photographs and live video feeds, the strategic importance of vision, and the visual technologies and media which support and extend it, becomes ever more evident in an age of digital technology. Photographic technology, therefore, must be understood not as ancillary to conflict, but integral to it. Photographs are not mere illustrations or records of battle: rather, images and their circulation are part of the tools and practices of warfare. War cannot be fully understood without addressing the visual; and we cannot adequately understand the function and position of photography in wartime visibility if we consider only individual producers or exceptional images.

Cognisant of these issues, a broader range of photographic imagery and technologies produced in the context of conflict is beginning to be addressed by scholars. Photographs made by soldiers and their significance—personal and public—has recently been scrutinised (Eisenman, 2007; Struk, 2011), as has the use in protests of ID photos and family snapshots in relation to forced disappearances and state terrorism in Latin America (Richard, 2000; Longoni, 2010); whilst there is a growing literature on aerial photography, reconnaissance and camouflage (Saint-Amour, 2003; Shell, 2012). Collectively, these endeavours represent a vital effort to redefine what constitutes 'war photography' and how it might be studied, in order to better understand the role of the photographic within the prosecution, experience, and representation of war.[6] It is to this endeavour, and to the pursuit of new

approaches to critical histories of war and photography, that this special issue aims to contribute.

The War Photography Complex

Recalibrating the definition of war photography makes thinkable the many ways in which visual technologies and material, their production and interpretation—what can be referred to as ‘visual practices’—connect to the prosecution and experience of war. We suggest it is helpful to conceptualise war photography not as a canon of images, but as a complex of interactions criss-crossing the fields of culture, commerce, government and the military. This complex encompasses not simply photographs and photographers, but also technologies, markets, companies and institutions, as well as entrepreneurs, managers, politicians, publishers and military personnel, all of whom are engaged with negotiating strategies, traditions and innovations. This vast field, we suggest, might be termed ‘the war photography complex’—a broad cultural phenomenon encompassing visual material and technologies which are created and deployed within the expansive field of wartime image production, circulation and consumption.

The use of the term ‘complex’ is prompted in part by Dwight D. Eisenhower, Supreme Commander of the Allied Forces in Europe during the Second World War and subsequently US President from 1953 to 1961. More precisely, the term is prompted by the speechwriters who coined the phrase ‘military-industrial complex’ used in Eisenhower’s ‘Farewell Address to the Nation’ on 17 January 1961.[7] Noting that 3.5 million US citizens worked in the defence industry and that annual spend on the military was ‘more than the net income of all US corporations,’ Eisenhower warned of the ‘potential for the disastrous rise of misplaced power’:

This conjunction of an immense military establishment and a large arms industry is new in the American experience. The total influence—economic, political, even spiritual—is felt in every city, every statehouse, every office of the Federal Government. [...] We must not fail to comprehend its grave implications. Our toil, resources and livelihood are all involved; so is the very structure of our society. In the councils of government, we must guard against the acquisition of unwarranted influence, whether sought or unsought, by the military-industrial complex (Eisenhower, 1961).

This diagnosis was as much a political statement, as a societal *cri de coeur*.^[8] Nonetheless, the term usefully pinpoints the interaction and dependencies which exist between industry, the military and government agencies. In citing Eisenhower's conception of the military-industrial complex, we highlight the need to attend to these relations in the arena of photography in developing a sufficiently rigorous understanding of war photography in the expanded sense. To illustrate this point, it is worth noting that at the end of the First World War, 38% of Kodak's business was in war contracts (Brayer, 1996: 411; cited by Nelson in this issue). Yet, consideration of the photographic dimension of the military-industrial complex has been almost entirely overlooked in favour of more obvious manifestations, such as the production of armaments and weaponry.

Historian James L. Hevia (2009) offers a further useful conception for approaching the complex interactions of diverse agents, institutions and technologies. In his consideration of the Boxer Uprising of 1900-01 and imperialism in relation to China at the turn of the twentieth century, Hevia proposes the term 'photography complex' to encapsulate a 'network of actants made up of human and nonhuman parts' (2009: 81). This network, he suggests, comprises the camera and related equipment; optic theory, negatives and chemicals (in Hevia's case study these include the albumen process, the moist collodion process, gelatin emulsions, dry plates); the photographer and the subject that is photographed; transport, communications and distribution networks that deliver the image to the end-user; and finally the system of storage and preservation that enables redistribution of, and subsequent encounters with, the image (2009: 81). The specifics of Hevia's list can be customised to the technologies, theories, processes, formats, individuals, institutions and modes of circulation and preservation relevant to other conflicts, from the mid-nineteenth century to today. What is clear from his early-twentieth-century example is that, 'When put in these terms, photography seems to be more like a heading under which a range of agencies, animate and inanimate, visible and invisible are clustered' (Hevia, 2009: 81).

It is precisely this sort of anatomising of photography as a set of interactive processes (encompassing diverse agents, drivers, sites and conventions) as opposed to a collection of concrete products (a given set of photographs) or an elite set of individuals (photojournalists) that is the central tenet of a broader critical research agenda addressing conflict imagery which we hope might be catalysed

under the aegis of 'the war photography complex.' While Eisenhower's term prompts engagement with questions of influence or power and its locations, Hevia evidences the intricacies of cultural production. Both are key characteristics of 'the war photography complex', the heuristic value of which, we suggest, is two-fold. First, it provides an important corrective to the conventional conception of war photography. Second, it provides a jumping-off point for a range of other studies which could go far beyond the specific historical and geographic focus of the papers brought together in this special issue.

The term 'complex' is used advisedly. It signifies a multi-dimensional entity or multi-directional network comprising numerous and varied components that form a large, composite structure. The term also implies intricacy of these interactions that resist simple explanation—an implication of complexity which is entirely apposite. Of course, the term also carries intimations of a psychoanalytical syndrome and in a sense this implication is not undesirable either. We want to suggest that academics interested in the critical study of war and culture should actively cultivate a 'war photography complex.' We should be concerned about the pervasive and convoluted relationship between the military, multi-nationals, markets and the media. By scrutinising the overlooked or unacknowledged processes, practices and relationships at work in the complex, more may be revealed of the specific power dynamics in particular instances. The reward for such effort will be a richer, more nuanced understanding of the intersection of war and photography, revealing how developments in the photographic cultures and prosecution of warfare are shaped as they are, by whom, and to whose advantage.

War, Photography and Business History

Whilst there are many aspects of the war photography complex that might be examined, among the most pressing and fruitful is its commercial dimension, to which this special issue is devoted. Business and industry shape the prosecution and progress of conflict; so too does war shape the development and direction of specific businesses and industries. Wars, as business historian Patrick Fridenson observes, are 'major episodes in the learning of people and organisations, in the modifications of their representations, in the change of their products, markets, and performances, and in networks and trade associations' (Fridenson, 2008: 14). The intertwined relationship between war and commercial activity encompasses numerous aspects: weapons development and manufacturing; the adoption of pioneering war

technologies to civilian markets (and vice versa); the connections between firms and government agencies or political parties; and the adaptation of civilian firms to business conditions in wartime, amongst others. Scholars of business history have paid significant attention to such correlations, resulting in greater insight into conflict, its impact and legacies.[9] However, the business of photography in the context of war has largely been overlooked, by both business and by photography historians.

Indeed, the conception of photography as a business endeavour, as opposed to an art or science, has been an undercurrent in photographic history. In 1861, the same year as the commencement of the US Civil War, Karl Marx wrote about the newly-emerging industries employing basic mechanical labour, in which he grouped photography together with gas-works, railways and other innovations. As photo-historian Steve Edwards observes, Marx's conception of photography as an industry—a commercial enterprise undertaken by more or less skilled workers processing material to produce saleable goods—was quickly overtaken by competing declarations of photography's more elevated status either as an artistic means of expression, or as an objective and scientific instrument of documentation (Edwards, 2006: 1–2). Histories of photography have subsequently been dominated by these two conceptions of the medium: the art-historical and the scientific-technological. By contrast, the treatment of photography as a business undertaking has been neglected by the majority of photography historians.

Studies that do examine the intersection of photography and business demonstrate a broad range of methodologies and research objectives, rather than coalescing into a unified field of study. A number of photo-historians pay close attention to business sources, including journals, advertisements, company records, and patents and legal documents, in order to illuminate their research on early or overlooked photographic practices. The role of entrepreneurial innovators in developing photographic technologies and practices, and the activities of commercial studios and portrait photographers, have attracted particular scholarly enquiry (cf. Heathcote, 1979; Heathcote & Heathcote, 1988; Pritchard, 1987; Keeler, 2002; Harding, 2000, 2012; Fukuoka, 2011). The endeavours of George Eastman and his influential company Kodak have been scrutinised by business historians (cf. Jenkins, 1975a, 1975b, 1990; Taylor, 1994; Munir & Philips, 2005). Invaluable as they are, there is a risk that such studies become weighted towards the recovery and synthesis of historical data, at the expense of the deployment of this data within more critical or theoretical frameworks. However, a number of studies have fruitfully mined

business sources to illuminate the wider cultural and social implications of photographic business endeavours (McCauley, 1994; West, 2000; Olivier, 2007).

The notion of photography-as-business has offered a potent means of recovering the histories, participation, and viewpoints of marginalised groups. Business directories, trade magazines, and national censuses, amongst other sources, have provided evidence of female photographers (e.g. Jay, 1982; Palmquist, 1992; Rosenblum & Grubb, 1994; Niedermaier, 2008; Rodriguez, 2012); and practitioners from black, minority ethnic, or indigenous communities (Moutoussamy-Ashe, 1986; Poole, 1994; Willis, 2000; Behrend, 2003). Collectively, these studies have mobilised data to argue for the agency and significance of photographers that have otherwise been elided by mainstream photographic histories.

A further important contribution is the scholarship that has emerged from photography studies since the 1980s, which critiques the role of photography in perpetuating dominant ideologies and structures of capitalism and imperialism (eg. Tagg, 1988; Edwards, 2001). A plethora of approaches – anthropological, feminist, Marxist, and post-colonial – have challenged the validity of art-historical and scientific-technological narratives to account for the development and deployment of photography. Within this diverse literature, a small number of studies has made commerce a central element of their enquiry, offering compelling examinations of the intersection of photography and business that reveal its relationship to questions of power, agency and politics (cf. Peterson, 1992; Zelizer, 1995; Sekula, 1999; Johnston, 2006; Brown, 2008). Moreover, a recent significant contribution has been the international conference ‘Workers and Consumers: The Photographic Industry, 1860–1950’ convened by the Photographic History Research Centre (De Montfort University) in 2013, which brought together scholars, historians and curators to consider the centrality of business to the practice and development of photography.[10] Notwithstanding these important contributions, scholarship on photography and business remains sporadic and dispersed—a minor byway, rather than a defining trajectory for research.

Furthermore, there is a marked absence of studies that engage in any sustained or meaningful way with the war photography complex, or consider how commercial interests figure in the practices of war photography in its expanded sense. Yet, since its inception, photography has found ways to capitalise on war. The

earliest surviving photographs relating to conflict, portraits of soldiers in Saltillo, Mexico, were made by enterprising daguerreotypists serving a transient clientele eager to immortalise their participation in the Mexican-American War (1846–48) (Debroise, 2001: 164). Roger Fenton, who depicted the Crimean War (1853–56) and is generally held to be the first significant photographer of conflict, was commissioned and financed by British publisher Thomas Agnew & Sons to produce images as a commercial publishing venture (Marien, 2010: 102). The main extant photographic record of the US Civil War (1861–65) is due to American entrepreneur Mathew Brady, who built a substantial commercial agency that commissioned, exhibited and sold photographs and albums of the conflict (Trachtenberg, 1985: 3). In response to the First World War, Kodak developed and sold some two million Vest Pocket Cameras, a compact portable camera marketed to be carried by soldiers destined for the trenches of the Western Front (Pritchard, 2014: 74–79). Kodak also trained servicemen and women in the interpretation of aerial imagery and, by the Second World War, developed new materials such as Tenite used in making steering wheels for jeeps (cf. Snow in this issue). During Germany's Third Reich, Agfa's development of colour film technology, supported by the Nazi state, became a key weapon in the cultural battle against the US and the Allies via the photo-magazine *Signal* (von Dewitz & Lebeck, 2001: 192). In Japan the modernisation which the nation's economy underwent from the late nineteenth century resulted in strong military connections in many major companies – such as the Mitsubishi *zaibatsu* (conglomerate) including Nikon – due to the evolution of business in a symbiotic relationship with the state (Hirschmeier & Yui, 1981). These diverse instances demonstrate how state and military clients, consumer demand, market forces, and self-interested competition have long helped shape photographic objects, technologies and practices produced in the context of conflict. Whether the corporate strategy of the multi-national company; the singular drive of the self-made entrepreneur; or the hand-to-mouth survival of the individual photographer caught up in the extraordinary conditions of wartime, 'the business of war photography' must be considered as a decisive factor in motivating action and innovation.[11]

Scholarship that examines the confluence of business *and* photography *and* war is scarce. A pioneering essay is Alan Trachtenberg's (1985) re-evaluation of Mathew Brady's photographic agency during the US Civil War. Trachtenberg rejects the art-historical quest to determine attribution of individual photographs emanating from the Brady agency as an endeavour that anachronistically applies 'a category of authorship, only marginally relevant to the commercial and discursive practices of

photography at the time' (1985: 3). Instead, Trachtenberg examines Brady's 'elaborate manufacturing enterprise complete with steam power, mass-production, and unskilled wage labour' (11), revealing the Brady company's role in shaping perceptions of the war for historical audiences. A more recent and equally illuminating contribution is Nancy West's account of Autographic Cameras marketed to soldiers during the First World War, assessing Kodak's transition from peacetime to wartime markets (West, 2000: 166–99). By highlighting Kodak's shift from promoting photography as a spontaneous activity to one marked by anticipated memorialisation, West reveals the dynamic relationship between photographic businesses and consumers. She shows how Kodak profitably exploited the new conditions of wartime and changed the way in which personal and snapshot photography was conceptualised. Both studies demonstrate the potential for uncovering how the economics of wartime present opportunities for the expansion of markets and product development, as well as shaping the ways in which wars are understood, remembered, and re-presented (frequently in ways that support dominant ideologies and state policies). By shifting from art-historical and scientific-documentary frameworks to consider business interests, West and Trachtenberg offer new insights into the ways in which wartime photographic practices are shaped as they are, and how they might impact on culture and society more broadly. Together, they signpost vital new directions for understanding and examining the war photography complex.

Such studies remain isolated contributions, however. To promote and develop this line of enquiry, and inspired by the previous 'Workers and Consumers' event, in 2014 we convened an international conference entitled 'The Business of War Photography: Producing and Consuming Images of Conflict', held at Durham University.^[12] The conference called for consideration of the 'nexus of pragmatic and strategic transactions and interactions concerning business, militarism and consumption' and 'the ways in which issues of supply and demand have shaped the field of war photography, and how this field has articulated with other forms of industrialised and commercial activity'. The papers presented examined diverse case studies: the First World War photographic postcard industry; photographs bought by soldiers in the Finn-Russo Continuation War of 1941–44; and the fee structures of present-day picture agencies supplying newspapers with images of conflict in Syria, amongst other topics. Hailing from China, Finland, Luxemburg and Sweden, as well as the UK and US, the speakers demonstrated a multi-disciplinary range of viewpoints from the research fields of history, cultural studies, visual culture,

business history, economics and political studies, as well as from professions outside academia including picture editing, photographic practice, archives and museums.

The calibre and diversity of contributions—four of which are expanded in this special issue—suggested scattered yet lively enquiry into the commercial and industrial dimensions of the war photography complex. Bringing together hitherto isolated studies, the conference stimulated discussion on how connections and causalities might be drawn across eras and conflicts. Moreover, it highlighted the need for scholars from a range of disciplines and regions to undertake further investigation into the interaction of business, militarism, consumption and other drivers. It was also clear from comments and questions during the conference, however, that there was a lack of shared frames of reference for this undertaking—a lack which exposed the limitations of existing theoretical and methodological frameworks for examining the interrelationship of war, photography and business. In order to work towards a resolution of this situation, we selected a handful of related articles for further development and publication.

Bringing approaches from cultural studies to bear on the history of conflict, the *Journal of War and Culture Studies* was the obvious choice for publication. The journal itself is symptomatic of the broad cultural turn within the humanities and social sciences generally, and the study of conflict particularly, over the last few decades.[13] Over the same period, business history, rooted in the fields of economics and the social sciences, has also experienced a cultural turn. Originally seeking to analyse cliometrics, financial systems and management strategies, business history has traditionally aimed to extract formulae for successful models of enterprise that may be usefully applied to present-day companies and industries. Since the 1990s, however, the discipline has witnessed a transition from the dominance of this positivist, empirical approach towards a range of conceptually-sophisticated methodologies and theoretically-engaged debates, assimilating considerations of culture, society and politics (e.g. Galambos, 1991; Lipartito, 1995; Frear, 1997; Hansen, 2012).[14] Drawing on critical theory and connecting with developments in cultural history, business historians now locate business within the broader discipline of history, with an emphasis on gender, culture, and political economy (Friedman & Jones 2013). Advocating closer collaboration between business schools and academic historians, Kenneth Lipartito problematises the view that business can be explained by functionalism alone, instead asserting that 'semioticians would argue business too is a text to be read, and that structures have

moral, emotional and ideological lives' (1995: 36). The 'cultural turn' in business history thus demands attributing greater weight to businesses as social actors, and to the two-way relationship between companies and consumers who, together, make meaning (Fridenson, 2008: 21—23).

Yet, whilst business historians have taken up innovations from cultural studies and critical theory, cultural historians and historians of photography have been slower to engage with business history's theoretical and methodological approaches. This is a limitation, as engagement with business history offers cultural historians and war photography scholars a range of informational, conceptual and methodological benefits. By advocating this initiative we seek to further the advances of the cultural turn, supplementing rather than replacing the tools of cultural historians with insights and approaches drawn from the field of business history.

One key strength of synthesising cultural and business history approaches is a renewed commitment to primary sources and historical specificity—a rekindling of interest in the wealth of information from which the cultural history of photography may draw. Duke & Coffman (1993) advocate direct consultation of a wealth of company documents. These may furnish evidence of markets and consumption, through annual reports, sales figures, and financial accounts. Insight into development and competitors may be gained via patents and copies of court decisions involving the company. Marketing materials demonstrate how companies outwardly project corporate values, through press runs of company promotional materials; press releases and stories; copies of speeches given by officials, and authorised company histories.

Obituaries of former company members and newspaper features on employees may also prove relevant. Oral testimonies of personnel past and present, and biographies, memoirs or papers of former directors or employees are also important sources of information, as is examination of corporate material culture such as products, artefacts, packaging, machines, prototypes, and buildings (Fridenson 2008). The relevance of these documents pertain not only to the business dealings of photography enterprises themselves (such as Kodak, explored in this issue by Rachel Snow's article on wartime marketing), but to those businesses that have a use for photographic images and technologies (such as *Life* magazine). Attention to such business sources and records can evidence surprising phenomena that might go against present-day assumptions. Beth Wilson in this issue, for instance,

challenges accepted notions of the maverick, independent war photographer by revealing the magazine's restrictive corporate structure in which they were embedded.

A challenge for the cultural historian of photography is gaining access to these sources, which frequently lie in private hands or company archives. Anecdotally, since the 1990s diplomacy is increasingly required not only to gain access, but also to obtain permission to critique and publish.[15] Where access to these documents is limited or materials are non-existent, due to loss or destruction resulting from bankruptcy or inadequate storage, Duke & Coffman suggest seeking out 'buffs' (employees who save every company document and in-house publication) and collectors (employees who keep copies of their correspondence at home) (1993: 222). They also suggest that internal communications, such as minutes from key committees, company house organs, and informational documents sent to employees, may offer insight into company strategy, structure and behaviours. The influence and trajectories of workforce members may be uncovered via records of labour negotiations or personnel files. Informative as these sources would be, accessing and making public such information raises questions of ethics and privacy which historians need to consider carefully.

A valuable conceptual benefit derives from business history's attention to issues such as product development, marketing initiatives and sales figures. Such attention offers quantitative ways of addressing questions of consumption habits by historical audiences. Tracking such activity provides the opportunity to reflect in informed and rigorous ways on the interaction of a given public with a given photographic product. Unearthing material which can illuminate the practices and preferences of past audiences is a valuable means to analyse relationships between consumers and business in the war photography complex, to determine how power and influence fluctuate between supply and demand in real-world contexts and specific historical moments. The interpretation of this data is an additional challenge, of course. What can you extrapolate from it in terms of experience or meaning vis-à-vis a given audience? Perhaps more importantly, what justifies particular inferences and not others? These challenges aside, such sensitivities and data (which foreground the audience and its consumption of products) allow photography to be understood not just in terms of isolated moments of production or reception, but as practices extended over time and place, as well as over gender and socio-economic categories, between extended networks of individuals (of managers, workers,

marketers, consumers, and recipients). In this regard, business history connects with and supports recent scholarship drawing on the discipline of anthropology that considers photographs as material objects that are created, valued and exchanged (e.g. Edwards & Hart, 2004) and which circulate in 'visual economies' which can span national borders (Poole, 1997).

Clearly, we do not offer engagement with business history as a wholesale corrective to the limitations of conventional scholarship on war and photography. Whilst there is much empirical data to be recovered, assembled and analysed that will assist greatly in future scholarship, business factors alone do not account for the broader picture of the ways in which war and photography interrelate. We are certainly not suggesting a rejection of semiotic or discourse analysis, or other concepts or frameworks (such as visuality, materiality or the history of emotions) that continue to offer scholarly insights. Nonetheless, as the papers in this journal demonstrate, a selective focus on the driver of business within the war photography complex can shed light on questions of the development of certain photographic technologies, modes and practices hitherto under-examined, thus offering vital new directions for historical study of war photography in a greatly expanded sense of the term. Rather than resulting in studies that focus exclusively on economic or financial considerations, an approach informed by business history augments potential for detecting connections and causalities that might reveal hitherto underappreciated drivers and legacies of photographic practices in the context of war. In doing so, business history may offer a check on ahistorical approaches that proceed from received ideas or present-day attitudes without sufficient sensitivity to either the context of production or the specific actors engaged in consumption.

War, Photography, Business: From the Second World War to the Cold War

The articles brought together in this special issue demonstrate that a judicious blend of methodological and critical approaches drawn from the disciplines of business history, cultural history and photography studies has the potential to enrich understanding of war's prosecution and impacts. We have chosen to focus on photography in the period from the Second World War into the era of the Cold War, partly because this period represents the seminal moment in which an awareness of (and anxiety about) the military industrial complex crystallised. In addition, since this is a period which has garnered considerable attention in the conventional narratives of war photography critiqued above, such familiar ground is an excellent opportunity

to show—by way of contrast—what is to be gained from this proposed research agenda encapsulated in the notion of the war photography complex.

Notwithstanding this specific focus, the articles that follow raise numerous research questions pertinent to conflicts and eras beyond the specific focus on photographic industries in Western nations during the Second World War and the Cold War. In what ways, for instance, does war impact upon photographic production, materials, products, distribution and sales? How are the kinds of images associated with war photography shaped by corporate interests, marketing, and products? How do corporate photographic development and business strategies respond to military demands, funding or restrictions? In what ways does photographic technology enable, shape or enhance the prosecution of warfare? And, perhaps most crucially, how is power and influence distributed between businesses, the military, wider state actors, and consumers or audiences for photography? By responding to these questions, there is potential to refine—even challenge—accepted accounts of war, enabling new insights precluded by existing methodological and theoretical frameworks. The following articles brought together here (though distinct in style and subject matter) each give weight to data recovery and analysis of business operations, whilst engaging with cultural history and visual studies. Together, they shed light on specific instances of the ways in which business and photography have reciprocally influenced war, and aim to inspire fresh thinking on other episodes beyond the epoch in question.

In 'Competition and the Politics of War: The Global Photography Industry, c.1910-1960', Patricia Nelson considers the relative fortunes and entangled histories of the US, West German and Japanese photographic industries in the context of the Second World War and the postwar period. This detailed account of technological innovation and military partnership in wartime, as well as occupation and postwar recovery in peacetime, provides rich insight into the workings of commercial organisations and their relationships with governments, both domestic and foreign. The article reveals how not only the demands of conflict shaped the sector, but also how the conversion back to civilian production was marked by the intense period of innovation and production during wartime. Nelson illuminates how photographic products took on a particular meaning or significance in the postwar period as the economic recoveries (and subsequent growth) of West Germany and Japan became closely associated with 'peace goods' such as cameras and lenses. In the context of the ideological battle between capitalism and communism, not only were commerce

and competition seen as a particularly democratic attributes, but the outputs of this struggle, in the form of incrementally improving consumer goods, were too. Nelson's article demonstrates the value of electing to ignore photographic images themselves, in favour of the crucial issue of innovation in the fields of camera, film and paper production. By doing so, her account offers the possibility of understanding the recursive impacts of war and photography on one another, as well as the legacy of such interactive histories in subsequent periods of peace and reconstruction.

In 'The Corporate Creation of the Photojournalist: *Life* Magazine and Margaret Bourke-White in World War II,' Beth Wilson considers the emergence of the stereotype of the photojournalist, which has not only been central to conventional histories of war photography, but also a key vehicle through which audiences have encountered the wars in which their governments have been involved. Wilson argues that this cultural figure took hold during the Second World War as a result, not simply of a public recognition of individual heroics, but of a deliberate strategy on the part of publishers of illustrated periodicals. Analysing a range of sources – including both memoirs and the printed page of the photo-magazine itself – Wilson posits that the image of the photojournalist acted as the exciting and attractive face of a publishing corporation or magazine. She examines the paradigmatic case of *Life* magazine to throw light on the ways in which the emerging conception of the photojournalist in the interwar period was catalysed by the global conflict. She also highlights the contradictions at the heart of this image, such that only a few photographers received the exposure of Margaret Bourke-White or Robert Capa, and that contrary to popular perceptions of the freewheeling independent war photographer in the search of 'truth', in practically all instances the photo-essay was conceived, planned and executed by editors with very little input from those creating the photographs. Wilson thus offers a revisionist account of the war photographer that challenges many of the assumptions underpinning conventional accounts.

Rachel Snow looks at a set of images which, amongst other places, were encountered alongside the photo-essays by photojournalists that appeared regularly in *Life*. Her article 'Photography's Second Front: Kodak's *Serving Human Progress through Photography* Institutional Advertising Campaign,' looks at the issue of advertising a consumer brand in wartime. Snow shows how, distinct from advertising products in peacetime, the practice of wartime institutional advertising aims to engender loyalty to a corporation based on the association of ideas and the establishment of a positive public image (a tactic also borne out by Boeing's

marketing campaigns of the same period that opened our own discussion). Snow scrutinises the case of Kodak and its self-presentation to the public in times of conflict: a commercial strategy that possessed a considerable degree of continuity across the First and Second World Wars. By tying ideas of technological innovation to notions of progress, the advertising strategy of Kodak sought to ‘educate’ its audience to the ways that Kodak could both support the military overseas and serve the civilian consumer at home. These adverts—which themselves, as Snow analyses, depended on photographic illustration—legitimised Kodak’s commercial growth during conflict, mitigating potential accusations of war-profiteering at the same time as promoting the corporation as an indispensable public institution. Indeed, such an advertising campaign is arguably a microcosm of the way in which the military-industrial complex is naturalised in mid-century America: of how the ever closer ties between business and the state (specifically in its defence capacity) come to be considered as unproblematic, even as positive and ‘progressive’ aspects of advanced capitalist society and its taking of necessary steps to ensure ‘security.’

Reflecting on the synergistic technological innovation which facilitated both nuclear testing and its recording, Ned O’Gorman and Kevin Hamilton scrutinise one of the ways in which the pursuit of such security (here through refining and amassing a nuclear arsenal) was visualised and communicated to audiences. In ‘Flash! EG&G and the Deep Media of Timing, Firing, and Exposing’, O’Gorman and Hamilton examine EG&G Inc., the US company formed by flash photography innovator Harold Edgerton and his colleagues, and the company’s symbiotic relationship with the US military during the early Cold War years. Whilst Edgerton is well-known by photography historians as the producer of split-second images such as the iconic *Milk Drop Coronet* (1936), Hamilton and O’Gorman investigate EG&G’s images of nuclear fireballs to trace a fascinating, albeit more disturbing, parallel trajectory. Making use of corporate histories, biographical studies, and employee memoirs, the authors track the ‘below-radar’ progression of EG&G’s technology through academic, corporate and military applications, to its final deadly integration into atomic weaponry. O’Gorman and Hamilton propose the notion of ‘deep media’ to characterise the interchangeability of firing, timing and exposure mechanisms that both detonated and recorded the deadly flash of nuclear fireball tests. The endgame of such an endeavour, they suggest, is that photographic technologies were instrumental—indeed indispensable—in the nuclear devastation that ended the Second World War and characterised the Cold War era. Their notion of ‘deep media’ highlights the manner in which the self-same technologies mobilised in news

reporting and leisure time were also fundamental to the operation of the weapons which defined individual experience and dominated international relations during the Cold War.

That such technology facilitated both nuclear tests and their representation is indicative of the intricacy of connections between technology, commerce, representation and conflict within the war photography complex. This too is reflected in the many points of connection between the subjects of these four articles. For instance, George Eastman, founder and CEO of Kodak, also funded photographic research at MIT, the research enclave of Edgerton and his colleagues; the flash unit developed by EG&G was taken into commercial production by Kodak for sale to civilian consumers; and the nuclear testing imagery made possible by EG&G's flash technology was brought to the US public via the pages of *Life* magazine. The exposure of these nodes of the war photography complex highlights the need for further investigation of the symbiotic relationships between key players during the period.

Moreover, the articles collectively revise certain assumptions about war and photography in the Second World War and early Cold War era. The studies by Snow and by O'Gorman and Hamilton, for example, demonstrate how state and corporate command of photographic technologies, (whether through the US military's detonation of nuclear bombs or Kodak's *Serving Human Progress* advertising campaign) conveyed a reassuring sense of the nation's scientific mastery to an American public in the anxious times of hot and cold war. Beyond images themselves, practices and discourses of photography enabled the military and the corporation to perform both rhetorical and strategic roles committed to defending 'the American way of life.' Wilson's revisionist account of the mythic war photographer, revealing his or her relative lack of independence and/or status within a magazine corporate structure, destabilises the oft-cited assumption of the photographer's power to influence the US public through publication of images in the mass media. On the other hand, Nelson shows how former Allied photojournalists and war photographers exerted influence in other, more surprising, ways: namely by endorsing camera technology that helped support postwar recovery of the photography industry in defeated Japan.

Together, these articles analyse the historic impact of global conflict in a key moment of change for the photographic industry. In so doing, they facilitate broader

conclusions about the war photography complex at the mid-point of the twentieth century, subjecting to critical scrutiny a range of myths and received ideas which inform conventional histories addressing war photography. Given the intricacy of the war photography complex, it is not a phenomenon that can be charted in its entirety in a single special issue. It is a multi-directional network, encompassing a myriad of interest groups, which demands focused, critical attention. Combining insights and approaches from business history, cultural history and photography studies, together these articles exemplify the value of different lines of attack on a given topic—or as Fridenson has said (employing an apt photographic metaphor), of ‘using different, multiple lenses on the same object [... meeting] the growing necessity of a plurality of approaches in order to seize the significance of a historical object’ (2008: 28). The articles in this special issue provide an instructive example of a range of ways to explore that intricate network of relationships which influence the production and consumption of photographic technologies and images in times of conflict.

We also hope that this example of new critical histories will catalyse further research into the war photography complex covering other conflicts, regions, and eras. How, for instance, does business interpose in practices of war and photography in the Global South in order to produce technologies, systems and images that resist those of dominant culture? How do issues of race and gender figure in photographic production or consumption? And how do recent digital and remote technologies—unmanned aerial vehicles offering instant photographic surveillance, soldiers’ helmet-cams, and dissemination of images via social media—change our understanding of the ways in which photographic images and technologies are utilised in the prosecution of warfare? [16] Consideration of commercial strategies and interests thus offers great potential to illuminate a cluster of pertinent issues that go beyond the geographic and historic scope of this special issue, including how technology and military ways of seeing are advanced and warfare is prosecuted, and how citizens are co-opted into warfare and militarism or persuaded to support foreign policy. To reprise and co-opt Eisenhower’s famous address to which we referred earlier, we must not fail to comprehend the grave implications of the war photography complex. More sustained and developed interrogation is essential given its fundamental nature, whereby lives and liberties are placed at stake.

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ENDNOTES

[1] 'Beachheads of Normandy,' *Life*, 19 June 1944; 'What it feels like to invade,' *Picture Post*, 24 June 1944. Capa's images can be viewed online: <<http://www.magnumphotos.com/C.aspx?VP3=SearchResult&ALID=29YL535ZXX00>> [accessed, 8 March 2016].

[2] *Life*, 27 November 1944, p.95. The advertisement can be viewed online: <<https://books.google.co.uk/books?id=2UEEAAAAMBAJ&printsec=frontcover&dq=life+27+november+1944&hl=en&sa=X&ved=0ahUKEwjVy9-T6qTLAhVMPPhQKHYSUDwYQ6AEIHDA#v=onepage&q&f=false>> [accessed, 8 March 2016].

[3] There is at least one paradoxical aspect of this 'common sense' conception of war photography: the objectivity of the photograph and the emotionally powerful effect of the photograph are not held to be contradictory. Presumably, we commonly assume that the power of a conflict photograph derives from the scene and not the aesthetic conventions or decisions which underpin the manner of its representation. Such an implicit assumption would allow ideas of both objectivity and emotional impact to be posited as hallmarks of a successful conflict photograph without dissonance.

[4] For an account of the development of the field of photography studies, see Welch & Long (2009). See Linfield (2010) for a critique of the post-structuralist critique which kick-started the field in earnest during the 1980s.

[5] The latter title is one of the outputs of a particularly noteworthy interdisciplinary research project, 'Photography and International Conflict,' undertaken at University College Dublin: <http://www.photoconflict.com/> [accessed 29 May 2015].

[6] These scholarly endeavours are concurrent with developments in artistic, photographic, and curatorial practice that problematise the genre. See, for example, the exhibitions *Memory of Fire: The War of Images and Images of War*, curated by Julian Stallabrass for multiple venues for the Brighton Photo Biennial (2008); and *Bringing the War Home: Recent Photographic Responses to Conflict in Iraq and Afghanistan*, curated by Pippa Oldfield for Impressions Gallery (2010).

[7] Ledbetter (2011) charts the intellectual origins, drafting and impact of the speech, as well as proffering a concise definition of its key term in relation to the US: 'Summarizing from the variety of post-Eisenhower usages [...], we can approximately define MIC as a network of public and private forces that combine a profit motive with the planning and implementation of strategic policy. The overlap between private and military contractors is usually presumed to include, in addition to the military itself, areas of both the executive branch (Defense Department contracts and appointments of military contractors to government positions) and the legislative branch (lobbying by military contractors, campaign contributions, and the desire of members of Congress to protect and expand military spending that benefits their districts)' (Ledbetter 2011: 6).

[8] As much as diagnosing developments in the political and industrial landscape which had taken hold in the relatively short time span between the First World War and the first years of the Cold War, Eisenhower was also responding to criticisms levelled at his administration by Senator John F. Kennedy during the preceding election campaign regarding a purported 'bomber gap' or 'missile gap' between the US and the Soviet Union.

[9] Two salient examples are the work of the La Commission Indépendante d'Experts which examined the economic and financial ties between Swiss companies and the Third Reich that entailed the expropriation of business property of Jewish companies (Bergier, 2002); and David Edgerton's examination of the relation in twentieth-century Britain of science, technology and industry to the state and the military (Edgerton, 2005).

[10] For further details, including abstracts of papers and biographies of speakers, see <<https://www.dur.ac.uk/mlac/news/warphotoconf/>> [accessed 29 May 2015].

[11] We recognise that foregrounding the notion of monetary gain in relation to war photography disturbs dominant notions of the humanist war photographer desiring to expose the reality of conflict, or the capacity of photographs to act as a neutral historical documents. Invoking the role of pragmatic business interests in relation to war photography raises ethical questions as problematic as those of voyeurism and the consumption of images of 'beautiful suffering' (Reinhardt et al., 2007). The relevance of pragmatic financial considerations to the representation of conflict was exemplified at the conference *The Business of War Photography* (2014) in a paper by Livia Bonadio which analysed the pragmatic issue of rights and fees regarding a single issue of the magazine supplement of the *Daily Telegraph* from 26 October 2013 which covered the conflict in Syria.

[12] For more details of the conference, see <<http://www.dmu.ac.uk/research/research-faculties-and-institutes/art-design-humanities/phrc/events/2013/workers-and-consumers-the-photographic-industry-1860-1950.aspx>> [accessed 29 May 2015].

[13] For a historiography of the 'cultural turn' in war studies, see Evans (2007)

[14] Regarding the historiography of business history, see Fridensen (2008) and Friedman & Jones (2013).

[15] By way of example, the authors note that Boeing refused permission to reproduce in this journal the 1944 advertisement 'Bulls-eye' discussed in the introduction to this article.

[16] For a discussion unmanned aircraft and visuality, see Dorrian (2014).

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