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Camera technology, its limitations and its impact on the work of the Army Film and Photographic Unit, 1941-1945

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ABSTRACT
Created as part of a wider strategy to tackle the 'morale crisis' that the British Army believed itself to be experiencing between 1940-1942, the Army Film and Photographic Unit was intended to counter German propaganda by producing images of battle, and it was hoped, British military success. Doing so however, proved easier said than done. Using the testimony of the men behind the camera, this article examines the limitations that technology imposed on the unit's work. It concludes by exploring the solutions the cameramen employed including shooting images of prisoners and of the dead and the production of staged material.

Introduction

'…[a] terrible old thing really, but it seemed to work'[1]

Thus did Army Film and Photographic Unit (AFPU) cameraman John Cotter describe the device with which he and his comrades were expected to bring images of battle to British cinema screens. Formed in October 1941 and disbanded in June 1946, the AFPU was a product of expediency created as Ronald Tritton, the head of PR2 – the sub-department within the War Office's Directorate of Public Relations responsible for handling the unit's output explained, with the aim of getting 'as much Army material onto the screen as possible'.[2]

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DOI: 10.25602/GOLD.bjmh.v10i3.1832
[1]Imperial War *Museum (hereinafter IWM) Sound.3953: John Cotter.*
[2]Fred McGlade, (ed.), *The Diaries of Ronnie Tritton: War Office Publicity Officer 1940-45*, (Solihull: Helion, 2012), p. 212.

The need for a positive portrayal of Britain's land forces was, by the Autumn of 1941, immense with the evacuation of Greece, the fall of Crete and the reversal of previous gains made in Libya contributing to a general feeling that something was seriously wrong with either the Army's command or its fighting ability. As the Permanent Under-Secretary for the War Office, P.J. Grigg observed in a paper presented to the Executive Committee of the Army Council in late October, 'for some time past the popularity of the Army with the public has been declining.'[3] Although the work of the AFPU would come to serve many purposes from documenting the testing of new weapons to recording evidence of war crimes, the unit's primary goal was to reverse this trend by projecting an image of the British Army as a tough, aggressively-minded, institution modern in both its attitudes and its approach to war. While informing the public about the progressive reforms to welfare, education and personnel selection that transformed the post-Dunkirk Army into something very different from its predecessor had a place within this strategy, its cornerstone was images of combat. This was made clear by Middle East General Order, No.122 which explained:

> The primary object of this Unit is to obtain records of the battle; material thus produced will be used both for publicity purposes and for War Office use. It is hoped by this means to obtain valuable publicity for the work and daily life of the Army, and to counteract the propaganda of the enemy.[4]

This article examines how the camera technology that was available to the AFPU impacted upon the unit's ability to fulfil this remit. In doing so, it builds on a corpus of work produced by Kay Gladstone, Tobby Haggith, Fred McGlade, Annette Kuhn, Ian Jarvie, James Chapman and others.[5] While much of this scholarship focuses on the

[3]The UK National Archives (hereinafter TNA) WO 163/86, Papers and Proceedings of the Executive Committee of the Army Council, Oct-Dec. 1941, 'The Army and the Public', 31 October 1941.

[4]IWM Notes and Correspondence of Kay Gladstone: Box 1; Pass Issued to Sgt. R.P. Lambert, 2 October 1942.

[5]See: Annette Kuhn, 'Desert Victory and the People's War', Screen, 22,2 (July 1981), pp. 45-68; Ian Charles Jarvie, 'The Burma Campaign on Film: Objective Burma (1945), The Stilwell Road (1945) and Burma Victory' *Historical Journal of Film, Radio and Television,* 8,1 (1988), pp. 55-73; James Chapman, *The British at War: Cinema, State and Propaganda 1939-1945*, (London: I.B. Tauris, 1998), pp. 138-161; Kay Gladstone, 'The Origins of British Army combat filming during the Second World War.' Film History, 14, 3 & 4 (2002), pp. 316-331; Toby Haggith, 'D-Day Filming- For Real: A Comparison of "Truth' and 'Reality' in Saving Private Ryan and Combat Film by the British Army's Film and Photographic Unit' Ibid., pp. 332-353; Ibid., 'Filming the Liberation of Bergen-Belsen' in Toby Haggith and Joanna Newman (eds.), *Holocaust and the Moving Image:*

finished product into which the work of AFPU cameramen was incorporated, particularly the feature length 'Victory' films produced between 1942 and 1945, this article adopts a different approach and utilises a combination of oral history interviews and the so-called 'dope sheets' housed in the archives of the Imperial War Museum to provide a personal insight into the difficulty of combat cinematography during the Second World War.[6] Part One explores the technical and practical limitations imposed on the cameramen of the AFPU by their equipment and the environments in which they operated. Part Two examines a variety of solutions that individual cameramen employed to overcome these difficulties.

Part One: Technical Limitations

As the introduction has suggested, the AFPU was a product of wartime expediency rather than any carefully devised strategy. In this respect the unit offered a marked contrast to the *Propaganda Kompanien* (PK) of the German *Wehrmacht*. In Germany, discussions regarding the possibility of cameramen operating as part of the armed forces had begun as early as 1935 with units of specially equipped *Kriegsberichter,* war reporters, trailed as part of army manoeuvres in 1936.[7] By August 1938, the PK system which comprised units of between 150 to 200 men including cine cameramen, photographers, war artists and journalists as well as technicians and support personal had been formerly adopted.[8] When tanks began to rumble across the Polish frontier in September 1939, 11 such units stood ready to spread the news of German military triumphs.[9]

In Britain, the first War Office Official Cinematographer was not appointed until 9 September and while former member of the General Post Office Film Unit, Derrick Knight, would later claim that he and the man selected to perform this role, 25-year old documentary cameraman Harry Rignold, had been earmarked by the Army at the

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Representations in film and television since 1933, (London: Wallflower, 2005), pp. 33-50; Fred McGlade, *The History of the British Army Film & Photographic Unit in the Second World War*, (Solihull: Helion 2010).

[6]Officially referred to as 'Secret Caption Sheets', 'dope sheets' were contextual documents compiled by cameramen after the fact. Their purpose was to tell editors often separated by vast distances from the events they were witnessing what was occurring on screen. For more see: Oliver Carter-Wakefield, 'The Cameraman's Experience of the Second World War: A Study of the Army Film and Photographic Unit's 'Dope Sheets', 1939-1943' Unpublished PhD thesis, University of London, 2023.

[7]Daniel Uziel, *The Propaganda Warriors: The Wehrmacht and the Consolidation of the German Home Front,* (Oxford and Bern, Switzerland: Peter Lang, 2008), pp. 70-71.

[8]Nicholas Férard, *Propaganda Kompanien: PK War Reporters of the Third Reich* (Paris: *Historie & Collections,* 2014), p. 8.

[9]Daniel Uziel, *The Propaganda Warriors*, p. 111.

time of the Munich Crisis, there is no evidence in the surviving records to support his claim.[10] Having been well documented by Gladstone, the factors that influenced the evolution of the tiny War Office Film Unit, comprising three men and one camera in May 1940, into the Army Film Unit in December 1940 and later, into the AFPU, do not need to be reiterated here.[11] What is significant is the fragmentary nature of this evolution which was mirrored in the formation of AFPU 'Sections' as the war progressed.

The creation of these units within a unit was not a linear process of expansion. Rather, it was dictated by the needs of the moment with personnel and resources transferred between Sections as campaigns wound down and new fronts opened-up. That the AFPU was forced to operate as part of an ad-hoc and at times parsimonious system highlights a sharp delineation between the British and German pre-war planning. As we shall see, this, combined with a failure to adequately husband resources once the conflict was underway, had serious implications for the cameramen in the field.

Taken prisoner during the battle for France, ambulance driver Bessy Myers, described how soldiers 'in relays of about twenty' would 'come to the road and snap us with their cameras' remarking, 'Apparently every German soldier carries a camera on him as part of his equipment.'[12] Possessed of major industrial concerns such as Zeiss which Adam Tooze describes as, 'one of the Wehrmacht's most indispensable suppliers', Germany led the world in production of 35mm cameras during the interwar period. Subsequently, it was able to provide PK cameramen with a lavish array of equipment including the state-of-the-art Arriflex cine camera.[13]

Designed by the Munich based firm of Arnold & Ritcher, and debuted in prototype form in 1936, the Arriflex was compact, easy to handle and featured a revolutionary design that allowed its user to see images through the taking lens without the problem of parallax. Such was its reputation within the industry, that several British cameramen recalled a sense of awe upon seeing one when they, like Myers, found themselves on the other side of the camera as prisoners of war.[14]

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[10]IWM Sound.10113: Derek Knight.
[11]See: Kay Gladstone, 'The Origins of British Army combat filming during the Second World War.', pp. 316-325.
[12]Bessy Myers, *Captured: My Experience as an Ambulance Driver and as a Prisoner of the Nazis,* (London: G. Harrap & Co., 1942), p. 33.
[13]Adam Tooze, *The Wages of Destruction: The Making and Breaking of the Nazi Economy* (London: Penguin, 2007), p. 516.
[14]IWM Sound.4578: E.A. Graham.

A handbook written in 1944 with the aim of improving 'the standard of battle photography' and issued to students at the AFPU's training school at Pinewood Studios listed nine cameras with which they were expected to be familiar. [15] Five of these were cine: the DeVry Types A and B; the Bell & Howell Eyemo; the Newman Sinclair Autokine – generally referred to simply as a 'Newman Sinclair'; and the Vinten Model K. And four still cameras: the Zeiss Super Ikonta; the Bessa Voigtlander; the Rolleiflex; and the Kodak Medalist.[16] Few cameramen in the field however, would have recognised this vision of optical abundance. A month before the handbook's publication, a report from No.2 Section in Italy, stated that the unit's lone Rolleiflex was broken and that there was a desperate need for both an Eyemo and a Newman Sinclair.[17]

This was not a new problem. Alan Lawson, whose duties within the AFPU including liaising with British camera manufacturers, recalled, 'This business of having masses of cameramen with masses of equipment is easily thought of but very difficult to achieve'.[18] Evidence of this difficulty is provided by the fact that from its inception, the AFPU was forced to appeal for donations from civilian camera owners. In December 1941 a notice appeared in *Miniature Camera World* stating that the publication had 'been instructed to collect immediately for use by the Army all available Super Ikontas'.[19] Similarly, from mid-1944 until the war's end, an advert appeared in national and regional newspapers offering camera owners a chance to send their devices 'into battle' by responding to the 'urgent' need of the AFPU.[20]

Exactly how many cameras the unit was able to obtain through these channels is unknown. Such appeals however, combined with the confiscation of German cameras intended for the American market from shipping impounded in Gibraltar, meant that the unit eventually possessed enough stills equipment to ensure that every cine cameraman also carried a stills camera.[21]

Cine cameras, of which there were fewer in private ownership, presented an altogether different problem. Eight months after the AFPU had been formed, the majority of its cine cameramen had yet to receive equipment. Those operating in the

[15]Ibid., K.47079, *A.F.P.U.*, April 1944.
[16]Ibid.
[17]TNA WO 170/3953, War Diary, 2. Army Film Unit: 'Report on Cine Equipment as used by Cameramen', 14 March 1944.
[18]IWM, Sound.3901: Alan Lawson.
[19]Anon., "Wanted for the British Army", *Miniature Camera World*, Dec., 1941, p. 1.
[20]For examples see: *Kent Messenger*, 16., Jun., 1944, pp. 1; *The Times*, 12 June 1944, p. 4.
[21]IWM Sound.4292: Charles Leonard Edwin Sutton.

field were doing what they could with four cameras, two of which were shared between four cameramen.[22] One of these machines was barley useable while another had been assembled from spare parts.[23] Venting his frustration, the unit's commander Major David Macdonald complained, 'Cine cameras are constantly in the hands of the mechanic, Sgt. Garnham, who is working night and day to keep the equipment running' adding, 'the spirit is there, but the equipment is weak'.[24]

For the men operating these cameras, the knowledge that they were using substandard equipment could be dispiriting. Ten days before he was killed by a landmine, Lieutenant John Murray, formerly an assistant director at Ealing Studios, wrote, 'It is indeed most depressing to make every effort to take good filmic photographs, and go into places where it is by no means healthy, and know that with a 'dud' camera the efforts may well be worthless.'[25]

For his part, Macdonald was clear in attributing blame claiming that the dearth of equipment was due to the 'shortsighted [sic] policy of the War Office'.[26] Certainly bureaucratic penny-pinching did not help. Gerald Massy Collier, who served as No. 1 Section's equipment officer, recalled how acquiring a new pair of cotton gloves for the unit's editing room resulted in a file of correspondence 'about an inch thick' while Peter Hopkinson, who was despatched, without a camera, to film the transit of Russian supplies through Iran, found his enthusiastic offer to buy a device out of his meagre Sergeant's pay for eventual reimbursement firmly rejected.[27]

While Macdonald's accusation is supported by the Army's failure to consider the question of official cinematography until the war was underway, the AFPU also suffered from the underdeveloped state of the British optics industry which in terms of camera technology was dwarfed by its competitors in both Germany and America.

Although Britain produced at least one camera with an internationally renowned reputation, the Newman Sinclair Autokine, it was, in the opinion of AFPU cameraman Arthur Graham, 'not really suitable for pictures in action'.[28] While the Autokine's duralumin body made it nearly impervious to damp and tough enough to survive being

[22]TNA WO 32/10152, War Diary of the Army Film and Photograph Unit in the Third Libyan Campaign, 3 July 1942.
[23]Ibid., 4 July 1942.
[24]Ibid., 31 May 1942.
[25]Ibid., 30 May 1942.
[26]Ibid., 31 May 1942.
[27]IWM, Sound.3897: Gerald Langlois Massy Collier; Peter Hopkinson, *Split Focus: An Involvement in Two Decades* (London: Rupert Hart-Davis, 1969), p. 25.
[28]Ibid., Sound.4578: Edward Arthur Graham.

dropped from a roof six times by director Stanley Kubrick during the filming of the infamous attempted suicide scene in *A Clockwork Orange* (1971) it was difficult to operate handheld, being better suited for use with a tripod.[29] As Graham remarked, this was 'a little bit difficult in a battle', yet despite this obvious limitation, the Ministry of Supply did investigate the possibility of manufacturing the Autokine *en masse* unfortunately discovering that the camera's handmade internal mechanism was too intricate to meet the requirements of mass production.[30]

Many members of the AFPU had formerly worked in the film industry and in its dealings with British camera firms this was both a blessing and a curse. On one hand, the network of pre-war contacts with which the AFPU was interlaced meant that the unit could easily call on, as Alan Lawson put it, 'the good will of the industry' and at times used both the facilities and technicians of private companies to repair its equipment.[31] On the other, the fact that they were dealing with 'old friends' necessitated a delicate negotiation between the needs of the unit and what those 'friends' were willing to supply. As Lawson explained, this made the AFPU reluctant to resort to requisitioning.[32] Much of what was produced was, in his opinion, 'quite frightful' resulting in a feeling of 'divided loyalties' which left him 'very glad' to be sent to Burma in 1944.[33]

Lawson's opinion of the industry's attempt to create a British battle camera was not favourable. Debuted in 1944 in time for the Normandy landings, the Vinten Model K was designed to be used handheld, took 200 foot long spools of film and featured a rotating turret that allowed users to switch between lenses without having to physically replace them. Although its makers were keen to publicise its use by the AFPU, so much so that they christened a later model the 'Normandy', Lawson saw it as offering 'enormous problems' owing to the poor quality alloy used in its construction.[34] Jefferey Krish who as an editor at Pinewood viewed a significant amount of footage shot on Vinten's agreed, recalling that the camera's tendency to let in light meant that a significant amount of footage was marred by flare.[35]

[29]Philip Strick and Penelope Houston, 'Interviewing Stanley Kubrick regarding *A Clockwork Orange', Sight and Sound*, 41.2, (Spring, 1972), pp. 62-66.
[30]TNA AVIA 15/3078, Newman Sinclair 35mm Cine Cameras: Nye to Perring, 17 May 1944.
[31]IWM Sound.3901: Alan Lawson.
[32]Ibid.
[33]Ibid.
[34]Ibid.
[35]Ibid., Sound.26599: John Jeffrey Krish.

Prior to the introduction of the Model K, the absence of suitable British cameras meant that the majority of the AFPU's cine equipment had to come from America. In this respect, however, the unit suffered from unfortunate timing. The California based company Bell & Howell's Eyemo, was light, compact and – featuring a pistol grip – easy to use handheld, being, in the opinion of Arthur Graham, 'a very good camera for the type of work we were doing'.[36] However, no sooner had British procurement agents placed their orders, than America's entry into the war saw the output of high-end firms such as Bell & Howell and Mitchel transferred to meet the needs of the U.S. military.[37] As a result, they were forced to turn to the Chicago based DeVry company whose cameras, first debuted in the mid-1920s, would come to define the AFPU's experience of filming war.

Having risen from penny arcade to boardroom, German-born Herman DeVry epitomised the immigrant success story of early twentieth century America. Sometimes referred to as 'the father of visual education' one of this inventor-cum-businessman's most famous achievements was the creation, in 1912, of a suitcase-size projector widely adopted by educationalists, businesses and U.S. government departments.[38]

First produced in 1925, his Type A cine camera reflected the didactic ethos of its creator, being primarily intended for use by schools and religious organisations.[39] Despite being built for use by unskilled hands, the Type A and its sister the Type B quickly established a reputation as a valuable back-up amongst professionals. A DeVry was amongst several cameras used by Joseph T. Rucker and Willard Van der Veer to shoot footage of Admiral Richard Byrd's 1928 South Pole expedition which earned them the 1931 Academy Award for best cinematography.[40] Similarly, a DeVry was used by newsreel cameramen Eric Mayel and Norman Alley to film dramatic footage of the Japanese attack on the USS Panay in 1937.[41]

Described by former AFPU cameramen variously as a 'a square box with a lens' and a 'tin shoe box' the DeVry was simple to operate and, weighing roughly 9lbs, relatively

[36]Ibid., Sound.4578: Edward Arthur Graham.
[37]TNA AVIA 38/269, Film and Camera Requirements: 'Photographic Equipment', 30 December 1942
[38]Anon., 'Get Facts About Home Radio Kits and Home Movies', *Popular Science*, Nov., 1943, p. 33; H. Mario Raimondo-Souto, *Motion Picture Photography: A History 1891-1960,* (Jefferson, N.C. and London: McFarland & Co., 2007), p. 58.
[39]Anon., *New Facts on Amateur Motion Picture Photography* (Chicago: DeVry, 1927), pp. 20-21.
[40]H. Mario Raimondo-Souto, *Motion Picture Photography*, p. 184.
[41]Ibid.

portable although several members of the unit recalled it as being difficult to hold for long periods of time owing to the absence of a grip.[42] Similarly to the Newman Sinclair it was, as Kenneth Rodwell recalled, 'alright if you could use a tripod'.[43]

What had been the camera's most remarkable feature in 1925, its clockwork motor, was by 1942, rather passé and required the operator to rewind for every 30 feet of film shot.[44] Built to run at sixteen frames a second this was incompatible with the twenty-four frames a second format which had become standard in the years following the introduction of sound. Subsequently, cameraman Leonard Harris found himself working alongside George Hill, Gainsborough Pictures' chief camera mechanic, to devise a new spring for the camera which was later fabricated by AFPU men Harold Payne and Douglas Hill in the workshops of Gaumont British's Shepherd's Bush Studios.[45]

To prevent the motor running down, cameramen were taught to rewind after every shot. As Ian Grant recalled, this 'meant that the spring was always in tension and could – and of course did – snap.'[46] The clockwork mechanism also meant that the camera was loud. John Wernham described it as emitting a 'fearful din' akin to 'a Singer sewing machine'.[47] While at times, this might be beneficial, such as when, according to Kenneth Rodwell, the publicity-conscious Montgomery waited until he could hear the whir of the camera's mechanism before handing out cigarettes to the troops he was visiting, more often than not, it was a nuisance.[48] Writing in June 1945, John Connolly reported that he had been ordered to stop filming a speech given by the Field-Marshal, because 'my Devry [sic] camera made a rather distracting noise while 'Monty' was talking.'[49]

The DeVry's 100 foot long spools of film gave its operator roughly a minute's filming time. For men who had been trained to be on the lookout for 'the extraordinary' and reminded that 'the cameraman is sometimes the only witness to events of national importance' while simultaneously being advised to 'never let film use become a mania', this had serious practical implications.[50] As Richard Meyer described, 'whilst you were

[42]IWM Sound.3953: John Cotter; Ibid., Sound.4929: Charles Sutton.
[43]Ibid., Sound.3867: Kenneth Mathew Rodwell.
[44]Ibid., Sound.7324: Reginald Ernest Day.
[45]Ibid., Sound.3969: Leonard William John Harris.
[46]Ian Grant, *Cameramen at War* (Cambridge: Stephens, 1980), p. 66.
[47]IWM Sound.14030: John Wernham.
[48]Ibid: Sound.3867: Kenneth Rodwell.
[49]Ibid: Dope Sheet, A700/353/3: Sgt. Connolly, 04/06/1945.
[50]Ibid., Notes and Correspondence of Kay Gladstone: Box 3; Notes taken by H.W. Govan, Course No.5 Army Film Unit, 1943.

loading it up …. something exciting or interesting may have been happening and you'd miss it'.[51]

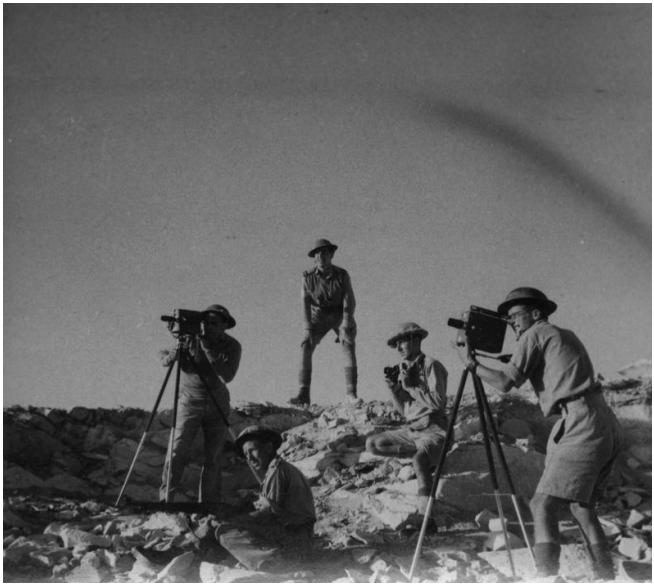

Figure 1: AFPU Sergeants with tripod mounted DeVry cameras.[52]

Unlike the Arriflex, the DeVry did not use magazines meaning that every time it was reloaded the camera's inner workings were exposed to the elements. Despite being advertised as a daylight loading camera, it was common for up to 2ft of every reel to have to be deliberately exposed while loading. Sand, water, dust, and mud could all cause serious problems with one grain of dirt in the camera's gate capable of scratching an entire length of film. When the first footage of the May 1942 Axis offensive against the Gazala line in North Africa arrived in London, Ronald Tritton, complained that, 'The film material was badly scratched, a lot of it was out of focus and the dust made the picture almost invisible.'[53] In an attempt to minimise the risk of scratching, cameramen were instructed to 'take the camera to a shady place' and lay it on a flat surface while they cleaned it, or, in extremis, just the gate every time they reloaded.[54]

[51]Ibid., Sound.3861: Richard Philips Grimstone Meyer.
[52]IWM HU 109825 Posed photograph of AFPU Sergeants Douglas Wolfe & Edgar Smales operating tripod mounted DeVry's shortly before the Second Battle of El Alamein in October 1942.
[53]Fred McGlade (ed.)., *The Diaries of Ronnie Tritton*, p. 268.
[54]Ibid., Fred McGlade, *The History of the British Army Film and Photographic Unit*, p. 48.

Billy Jordan, who described going down on his hands and knees and covering his camera bodily in an effort to keep out the sun, an effort which unfortunately also brought it closer to the sand, estimated that between '30 to 40%' of material shot in the desert 'was either scratched, fogged or [had] something wrong'.[55]

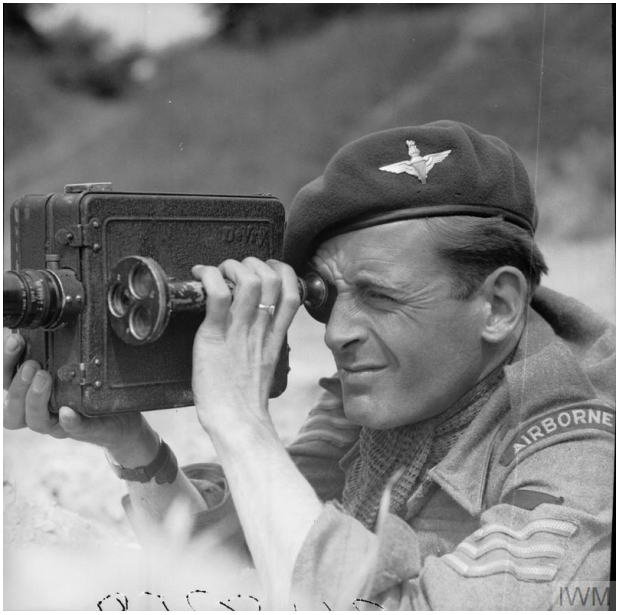

Figure 2: Sgt. William Lawrie photographed using a DeVry in 1945.[56]

Although a minority of cameramen praised the DeVry, claiming that its simplicity meant that it was better able to survive being 'bashed about', it was still being used in conditions for which it had never been intended and technical problems were common.[57] In April 1944 a report on the quality of footage shot in Italy resulted in three cameras being taken out of service while the AFPU handbook listed ten separate problems that users of a DeVry might encounter.[58] These included jamming, torn film, and the camera's motor failing to stop.[59] The cameramen's dope sheets reflect this, offering a litany of complaints regarding the impact that the DeVry's unreliability was having on their work.

[55]IWM Sound.4832: William 'Billy' Jordan.
[56]IWM BU 8359.
[57]Ibid., Sound.14839: George Laws.
[58]Ibid., K.47079, *A.F.P.U.*, Apr. 1944.
[59]Ibid.

Writing in June 1942 Reginald Morris, described how his camera's motor had 'a habit of jumping suddenly …. causing the camera to jar badly.'[60] Five months later, Joe West reported, 'The splicer breaks often and every time this happens the beginning of the actual film stock is cemented to the face of the lower film.'[61] 'Unfortunately', wrote fellow No.2 Section cameraman Richard Meyer a few weeks later, 'I could not stop my camera running so that at the end of each shot there is a nasty jolt where someone has to hold the handle for me.'[62]

To offset the danger of footage being lost to malfunctions, cameramen were issued with what one trainee at Pinewood described as 'a lifejacket' in the form of changing bag made of blackout material which allowed them to perform basic maintenance mid-reel without exposing their film.[63] Indeed, such was the importance accorded to cameramen being able to undertake ad-hoc adjustments and repairs in the field that they were taught to perform certain tasks such as loading and unloading blindfolded.[64]

Aside from its tendency to malfunction, the DeVry's biggest drawback was undoubtedly its short focal range. Although the AFPU suffered from an endemic shortage of telephoto lenses, in the case of the DeVry their absence was largely academic as the largest lens its mounting could accommodate was six inches.[65] While this was capable at producing impressive results up-close, events taking place at a distance, such as the clash of British and German armoured formations 'almost in parade formation' seen from atop a ridge by Derek Mayne during the battle of Alam el Halfa in September 1942 were impossible to record.[66] 'If you saw a tank', recalled Richard Meyer, 'you could see this thing rumbling about in the distance, but it wasn't very dramatic.'[67]

Antiquated in design and at risk of a myriad variety of mechanical failings, the DeVry, although not without its enthusiasts, was generally viewed negatively. Little wonder therefore that, despite the collegiate and friendly atmosphere that many AFPU veterans recalling as characterising the unit, as cameraman Henry Thompson recalled, 'If there was an officer present, he had the Eyemo.'[68]

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[60]Ibid., Dope Sheet, A234/7: Sgt. Morris, 30/06/1942.
[61]Ibid., A134/60: Sgt. West, 14/11/1942.
[62]Ibid., A299/5: Sgt. Meyer, 23/12/1942.
[63]Ibid., Notes taken by H.W. Govan.
[64]Ibid.
[65]Ibid.
[66]Ibid., Sound.11380: Derek Mayne.
[67]Ibid., Sound.3861: Richard Meyer.
[68]Ibid., Sound.3952: Henry Thompson.

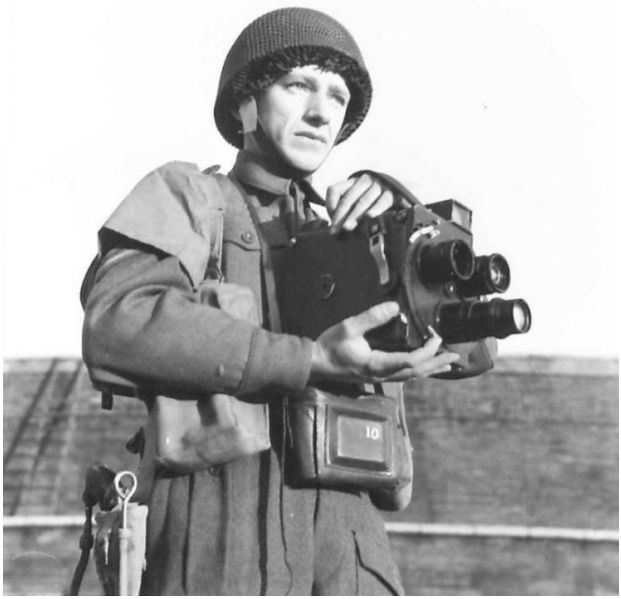

Figure 3: Sergeant R.V. Stewart poses with a Vinten Model K.[69]

Part One: Practical Limitations

Although early advocates of photography, such as the French chemist Joseph Louis Gay-Lussac, had postulated extensively regarding the potential of the camera to capture images of battle 'with a completeness that is quite unattainable by other means', the results had been disappointing.[70] While cinematography appeared to offer a solution to the problem of recording movement on the battlefield, technological advances – specifically the invention of the Gatling gun in 1861 and smokeless powder in 1884 – meant that the medium's coming of age coincided with radical changes in the nature of land warfare. 'Modern battles are at a long distance', observed film producer Charles Urban in 1904, 'the bullets go "zip, zip" but you can't see the men who fired them'.[71] By the time the AFPU was formed, the domination of the battlefield by machine guns, high explosives and air power was complete, making concealment synonymous with survival. For men who were expected not only to film combat but

[69]IWM H 4129.

[70]Quoted in: Janina Struk, *Private Pictures: Soldiers' Inside View of War* (London: I.B. Tauris, 2011), p. 22.

[71]Quoted in: Colin Harding, and Simon Popple, *In the Kingdom of Shadows: A Companion to Early Cinema,* (London: Cygnus Arts, 1996), p. 120.

to do so in a way that made narrative sense, this environment presented considerable challenges. As cameraman John Wernham asked philosophically, 'what's the use of photographing a rifle poking out from behind a tree?'[72]

While they would attempt to film genuine combat, if possible, most cameramen appear to have agreed that their remit was extremely difficult to fulfil. As Reginald Day explained, the practical necessities of military operations rarely made for compelling footage. 'At night-time' he recalled, 'the conditions don't prevail whereby you can get photographs except perhaps at sunset and sunrise and even then, you're limited. During the daytime movement is down to a minimum […] you get action photographs out of that, you're a miracle worker.'[73] Yet even filming the rare instances of fighting above ground in broad daylight presented challenges. Leonard Harris, a member of No.5 Section, described how 'suddenly perhaps when you're pointing this way, an explosion goes off over there, you might whip round and get a bit of the smoke or something, but it's all spread out and it doesn't look that exciting'.[74] Harris's statement is born out by an entry from No.2 Section's War in which its commanding officer, Hugh Stewart noted that in Tunisa, 'Except for abnormally close-range stuff' he and his men had 'been unable to photograph any shells bursting […] even with 6 inch lens.'[75]

Frequently the volume of 'close range stuff' was such that it prevented the cameramen from filming at all. 'Difficult to get action pictures owing to intense artillery and small arm-fire', reported Arthur Graham as he attempted to record the fighting near Tobruk in November 1941.[76] Covering a counterattack by the Durham Light Infantry in February 1943, Richard Meyer explained, 'It was impossible to get any shots […] as we were obliged to lay absolutely flat and still. The slightest movement brought the usual reply.'[77]

Although as members of the AFPU were expected to face, what Hugh Stewart described as, 'the danger that's inherent in any occupation of the soldier' both they and their commanding officers appear to have subscribed to the view that needless risk taking was counterproductive.[78] Stewart expressed this bluntly, stating 'a shot's only valuable if it can be put on the screen.'[79] Similarly, John Wernham recalled being

[72]IWM Sound.14030: John Wernham.
[73]Ibid., Sound.7324: Reginald Day.
[74]Ibid., Sound.3969: Leonard Harris.
[75]Ibid., Dope Sheet, A300/1: Sgt. Wilson, 1 January 1943.
[76]Ibid., A169/2: Lt. Graham, 20 November 1941.
[77]Ibid., A356/1: Sgt. Meyer, 28 February 1943.
[78]Ibid., Sound.4579: Hugh St. Clair Stewart.
[79]Ibid.

told by David MacDonald, shortly after arriving in Egypt, 'don't get killed, there's no point, you can't be replaced'.[80]

Clearly however, some cameramen chose to deliberately take risks. Billy Jordan who was wounded by a grenade while traveling on top of an armoured car during the advance in to Tunis in May 1943 recalled how he and stills photographer Geoffrey Keating used to 'get a kick' from attempting to outdo the other's bravado.[81] The propensity of one of Jordan's colleagues, Martin Wilson who was celebrated in a 1943 newspaper article for 'strumming merrily' on an abandoned piano in the newly liberated city of Bizerta while a tank battle occurred nearby, was such that he was described as 'a madman'.[82]

Yet regardless of personal attitudes towards their own safety, it is evident that many cameramen felt a moral obligation not to endanger others through their actions. George Laws, a cameraman with No. 5 Section, described how, 'If they [the soldiers] was [sic] right forward and under observation, they was [sic] very wary of us.'[83] The practical implications of this were starkly summed by Kenneth Rodwell who remarked, 'if there's a lot of muck flying around and you're standing up with a camera, you're a damn fool and someone will shoot you very quickly because you're a danger to other people'.[84]

Part Two: Solutions

At Pinewood, trainee cameramen were given examples of the type of 'stories' they should attempt to cover. Amongst the examples of 'first class' material cited in the notes made by Harold Govan in 1943 were, 'the fall of cities, the capture of high-ranking enemy officers' and 'the wreckage of an important battle'.[85] Significantly, other than rather general aphorisms such as, 'don't rely on having time to think', and the perhaps not overly helpful recommendation, 'Gain ground vantage points where you can see clearly what is going on', cameramen were given little practical advice about how to film combat.[86] Although not mentioned directly in Govan's notes, the emphasis placed by his instructors on the aftermath of battle can be interpreted as a tacit acknowledgement of the difficulties their pupils would encounter in the field.

[80]Ibid., Sound.14030: John Wernham.
[81]Ibid., Sound.3867: Kenneth Rodwell.
[82]Ronald Legge, "Briton Played Piano as Tank Fought Nazis", *Daily Telegraph*, 10 May 1943, p. 4; IWM, Sound.3861: Richard Meyer.
[83]IWM Sound.14839: George Laws.
[84]Ibid., Sound.3867: Kenneth Rodwell.
[85]Ibid., Notes taken by H.W. Govan.
[86]Ibid.

The profusion of burnt-out trucks, mangled tanks and crashed aeroplanes evident in the work of the AFPU would certainly seem to suggest that many cameramen took this advice to heart. In landscapes otherwise devoid of features wherein, as David Macdonald remarked, 'you never see the enemy unless he comes at you with a bayonet, or with his hands up', material of this kind provided both a useful focal point and an effective bookend for the kind of narrative the cameramen were expected to produce.[87] Evidently it was also seen as excellent propaganda. Indeed, while cameramen were taught to emphasise the power and strength of British armour by filming it, where possible, 'from a low angle', in the case of Axis detritus they were advised, 'always get your pictures from a high point', in order to amplify the scale of defeat.[88]

While footage showing the material destruction wrought upon enemy forces was considered good propaganda, opinions regarding the physical cost of war differed. Confronted in June 1942 with 'a long sequence of the most disgusting close-ups of rotting dead Italians' Ronald Tritton noted disgustedly, 'They are too horrible for any newsreel company to use'.[89] Not everyone within the AFPU shared Tritton's squeamishness, however. While British and Allied dead are conspicuous by their absence in much of the unit's work Axis dead appear frequently. Filming in November 1942 as the fighting at El Alamein reached its climax, Douglas Wolfe recorded that he had shot:

> C.U. showing mangled remains of German gunner. …. Med. & C.U. showing charred remains of scout car driver (enemy) still seated at steering wheel. The car received a direct hit and caught fire. Little remains of the driver except the skeleton. Med and Close up of German infantryman killed by shrapnel. A pool of blood appears in the foreground of M.S. In close up [sic] it will be seen that his spectacles are still in position, one lens being smashed.[90]

Although John Wernham recalled being advised by one colleague that he should try and film, 'dripping fat …. German soldiers oozing, nasty stuff' the majority of cameramen appear to have been aware that particularly gruesome scenes were unlikely to be shown publicly.[91] George Laws justified the shooting of macabre imagery of the kind that he knew would not be used – such as the crew of a German halftrack whose faces and hands had been burnt down to the bone – on the basis that he 'didn't think that it would hurt people sitting in a comfortable chair at Pinewood to see what

[87]Anon. "Film Guide", *The Listener*, 11. Mar., 1943, p. 7.
[88]IWM Notes taken by H.W. Govan.
[89]Fred McGlade, (ed). *The Diaries of Ronnie Tritton*, p. 281.
[90]IWM Dope Sheet, A275/2: Sgt. Wolfe, 2 November1942.
[91]Ibid., Sound.14030: John Wernham.

some of the horrors were.'[92] Fellow No.5 Section cameraman Ernest Walter described how his initial revulsion at the sight of enemy corpses on the battlefield soon changed to fascination, leading him to 'get close with my lens and photograph every little detail.'[93] Like Laws, Walter claimed that he wanted officials in Britain 'to see what we are [sic] seeing' adding, 'I wanted someone to share that with me'.[94]

Figure 4: Sergeant Adrian Acland using a Bell & Howell Eyemo to film Italian dead in July 1942.[95]

Despite dubious legality under Article II of the Third Geneva Convention of 1929 which stipulated that prisoners of war should be protected from 'public curiosity', the filming of captured enemy soldiers was freely indulged in by both sides during the

[92]Ibid., Sound.14839: George Laws.
[93]Ibid., Sound.8299: Ernest Walter.
[94]Ibid.
[95]IWM E 14632 Sgt. Adrian Acland using Bell & Howell Eyemo to film Italian dead July 1942

war.[96] Within the AFPU the subject appears to have raised few qualms with prisoners being seen as an ideal source of 'saleable' material. Peter Hopkinson remarked, 'they could not object if you thrust a camera right into their faces', although the cameramen's dope sheets reveal that some in fact did just that.[97]

The spectacle of weary and bedraggled men trudging into captivity (often under minimal guard) offered an evocative testament to British victory while individual close-ups could be used to elicit feelings of hatred or pity or, as in the case of the advice given to trainees cameramen to focus on, 'outstandingly young, badly clothed prisoners', to signify that the enemy's manpower reserves were running dry.[98] George Laws described how he and his colleagues made a point of following this advice searching first for 'very young prisoners' before focusing on 'the hard characters' particularly the SS.[99]

For Peter Hopkinson who had joined the AFPU 'determined to be a film-maker' the process of 'cranking up my De Vry [sic]' and aiming it at 'distant bangs and crashes' was 'in no sense a capturing of the image of the war.'[100] Far better in his opinion was filming wherein the cameraman had an element of control over what was happening. This allowed for the incorporation of cinematic technique which in turn made the audience feel 'participatory in the action'.[101] Although Hopkinson's dope sheets do contain instances of genuine combat such as his November 1942 footage of 'Grant tanks firing into enemy strong points', they also offer a testament to his creative skill as a filmmaker.[102] Edited mentally and in camera, his sequences, such as the one he shot over three days in September 1942 based on the premise that 'as so often happens an armoured formation has run up against an enemy anti-tank screen, which is hindering its advance', often amounted to short films in their own right.[103]

In arguing for an approach similar to that of the documentary film theorist John Grierson who espoused 'the creative treatment of actuality', Hopkinson was far from

[96]International Humanitarian Law Databases, 'Convention relative to the Treatment of Prisoners of War, Geneva, 27 July 1929.', https://ihl-databases.icrc.org/en/ihl-treaties/gc-pow-1929. Accessed 29 September 2023.
[97]Peter Hopkinson, *The Screen of Change: Lives made over by the moving image,* (London: UKA Press, 2008), p. 194; see for example: IWM Dope Sheet, A449/2: Sgt. Day, 13 May 1943.
[98]Ibid., Notes taken by H.W. Govan.
[99]Ibid., Sound.14839: George Laws.
[100]Peter Hopkinson, *The Screen of Change*, p. 195.
[101]Ibid.
[102]IWM Dope Sheet,
[103]Ibid., A257/6: Sgt. Hopkinson, 07/09/1942.

alone.[104] Hugh Stewart, a peacetime film editor recalled isolated segments such as, 'a shot of tank going along followed by some soldiers going through a group of palm trees in a different kind of place without any relation with one another' as being 'incredibly difficult to use'.[105] In order to guard against the production of this kind of material trainees at Pinewood were told, in a lecture entitled '*The Editor and the Cameramen',* that the cameraman 'must work out his shots beforehand' mentally 'scripting' his work to make it as "artistically dramatic as possible'.[106] While this might be easily achieved on the parade ground, it was impossible amid battle. 'You're very lucky if you get a picture, first time round' stated Derrick Knight, 'there has to be a certain amount of staging.'[107]

Bearing out cultural theorist John Hartley's observation that the 'ideology of eyewitness authenticity is much stronger than the actuality of newsgathering practices', the subject of staging both was and *is* controversial, particularly in regard to images of war, wherein it becomes intertwined with notions of decency, honour and the righteousness of one's cause.[108] McGlade, for instance, demonstrates a marked reluctance to engage with the topic of staging in the work of the AFPU claiming that cameramen were instructed to mark all staged material as such on their dope sheets.[109] While there certainly is evidence that some cameramen marked material as 'reconstructed' this practice was by no means universal.[110]

The cameramen's oral testimony reveals attitudes towards staged material were considerably more nuanced that McGlade suggests. Kenneth Rodwell for example, when describing his own involvement in producing staging material, offered the empathic conclusion, 'The filming of a war, for an exciting picture should all be re-enacted, actual war cannot be filmed'.[111]

No.1 Section's War Diary demonstrates that the subject of staging was discussed as early as January 1942 although there is no record of the conclusion reached.[112] Monty Berman could not remember being given any specific instructions but claimed that

[104]Quoted in Forsyth Hardy (ed.), *Grierson on Documentary* (Berkley and Los Angeles: University of California Press, 1966), p. 14.
[105]IWM, Sound.4579: Hugh Stewart.
[106]Ibid., Notes taken by H.W. Govan.
[107]Ibid., Sound.10113: Derrick Knight.
[108] John Hartley, *The Politics of the Pictures: The Creation of the Public in the Age of Popular Media,* (London: Routledge, 1992), p. 144.
[109]Fred McGlade, *The History of the British Army Film & Photographic Unit*, p. 97.
[110]For an example see: IWM Dope Sheet, A255/8: Sgt. Flack, 23 August 1942.
[111]Ibid., Sound.3867: Kenneth Rodwell.
[112]TNA WO 169/6825, War Diary, Army Film and Photograph Unit, 12 January 1942.

even if he had, it would have made little difference as, 'we just did our own thing'.[113] Rodwell, on the other hand, claimed that the matter was discussed but left to individual discretion.[114]

A degree of official clarification was offered in 1944 when the Viscount Stopford, recently appointed commander of No.2 Section, sought to address the criticism levelled at his unit by the War Office that, 'when there have been reports in the papers of fierce fighting 2 A.F.P.S has nothing to show for it'.[115] Arguing that 'battle sequences would be rarely more than a fleeting scene over a short period', Stopford, an infantryman with no previous experience of film or photography, stated that 'intelligent reconstruction of historical incidents, well photographed' were 'an essential addition to actual battle photography.'[116] The policy eventually agreed on was that staging would be 'restricted to static periods when useful battle pictures were to all intents and purposes unobtainable'.[117] No.2 Section's dope sheets however, indicate that this was a case of codification after the fact. In March of the previous year, cameraman Dennis Lupson noted that he had filmed a sequence showing members of the Inniskilling Fusiliers attacking an imaginary objective with fixed bayonets. These dramatic images, he explained 'do not form a story themselves but are to be used for cutting into any Tunisian battle film' adding, 'It has proved almost impossible to get this type of shot during actual fighting.'[118]

Hopkinson's use of the phrase 'as so often happens' and Stopford's reference to 'intelligent reconstruction' echo the justification that many cameramen would later offer for shooting staged scenes. Many sought to establish a distinction between staged material and 'reconstruction'. Reginald Day phrased the question rhetorically asking whether getting, 'people to repeat their actions of a few moments earlier can that be classified as reconstruction?'[119] Concluding 'I think not, I think that can be regarded as genuine material.'[120] Even Hugh Stewart, who McGlade claims held an 'unambiguous' view on staging acknowledged that, 'most self-respecting battles were basically un-photographical.'[121] Far from being unambiguous, his view was shaped by his experience

[113]IWM Sound.11382: Monty Berman.
[114]Ibid., Sound.3867: Kenneth Rodwell.
[115]TNA, WO 170/3953, War Diary, 2. Army Film and Photo Section, 'Notes on the organisation of No.2. A.F.P.S.', 19 April 1944.
[116]Ibid., 'Notes on conversation with D.P.R.', 25 April 1944.
[117]Ibid.
[118]IWM Dope Sheet, A372/2: Sgt. Lupson, 22 March 1943.
[119]Ibid., Sound.7324: Reginald Day.
[120]Ibid.
[121]Ibid., Sound.4579: Hugh Stewart.

as an editor. 'What I don't like', he claimed, 'is the idea of shooting entire battles nowhere near the situation at all'.[122] However:

> …if you're shooting a battle and you get some real shots of the battle, and you get some long shots of it, I don't think it is immoral to go back and shoot close-ups to put in to create a correct editorial effect …. one has to be logical and sensible about this. You can't shoot at night. And so, if you want to get a close-up of somebody at night, a man …. handling his rifle, once you got the real battle I don't think it is unreasonable to shoot stuff like that to cut in to give extra cinematic life to the sequence.[123]

Conclusion

'It was a miracle we got any pictures at all', remarked stills cameraman Bill McConville whose 1944 photograph, taken shorty before he lost a leg, of British soldiers preparing to storm a house at Monte Casino garnered the medal for 'Best War Picture' at the International Salon of Press Photographers in 1945.[124] This opinion was echoed by many his comrades and not restricted to stills equipment.

As this paper has demonstrated, the underdeveloped state of the British optics industry combined with a failure on the part of pre-war planners to properly consider the question of combat cinematography put the cameramen of the AFPU at considerable disadvantage. Coming, in comparison to their German counterparts, relatively late to the game, they were forced to rely on equipment acquired through necessity rather than through choice. Sourced through a variety of channels, much of what they received was either antiquated or fell below the standard of acceptability expected by former professionals like Alan Lawson.

The much-maligned DeVry cine camera epitomises this. Had the AFPU been formed earlier in the war, it is possible that suitable numbers of high-grade newsreel cameras could have been acquired. As it was, the Japanese attack on Pearl Harbour resulted in British procurement agents being largely frozen out of the American market as the resources of its film and photographic industries were transferred to meet its own war needs. In the absence of suitable alternatives, officials were forced to turn to DeVry whose cameras, while possessing many merits when first debuted nearly eighteen years before, were by 1942 beginning to look considerably dated.

[122]Ibid.
[123]Ibid.
[124]Ibid., Notes and Correspondence of Kay Gladstone: Box 3; Bill McConville transcript.

Forced to work in a dangerous environment with unreliable cameras and without the telephoto lenses that might have allowed them to capture combat at a distance, members of the AFPU adopted a variety of solutions in order to produce the type of material expected from them. Largely precluded both technically and practically from filming combat as it happened, they instead focused on its aftermath, using images of wrecked machinery, enemy dead, and prisoners of war to convey to audiences the sense that the British Army had turned a corner from the defeats and setbacks of 1940-42 and was now capable of achieving victory over its enemies.

Many cameramen also employed an element of artifice and staged scenes to make their work more cinematically effective because such material would have been otherwise impossible to obtain. Often this practice was justified on the basis that it was a 'reconstruction' of events that had recently occurred or, as in the case of Hopkinson, 'often' happen. In bringing this to wider attention, this article does not seek to denigrate the AFPU or cast aspersions upon the reputations of those who severed within its ranks. Instead, it argues that equation of 'authenticity' with 'integrity' made by McGlade is reductive and fails to consider the limitations imposed on the unit's cameramen by both the equipment available to them and the environments in which they operated.