



University of HUDDERSFIELD

University of Huddersfield Repository

Cox, Geoffrey

'There must be a poetry of sound that none of us knows...': Early British documentary film and the prefiguring of musique concrète

Original Citation

Cox, Geoffrey (2017) 'There must be a poetry of sound that none of us knows...': Early British documentary film and the prefiguring of musique concrète. *Organised Sound*, 22 (2). pp. 172-186. ISSN 1355-7718

This version is available at <https://eprints.hud.ac.uk/id/eprint/32092/>

The University Repository is a digital collection of the research output of the University, available on Open Access. Copyright and Moral Rights for the items on this site are retained by the individual author and/or other copyright owners. Users may access full items free of charge; copies of full text items generally can be reproduced, displayed or performed and given to third parties in any format or medium for personal research or study, educational or not-for-profit purposes without prior permission or charge, provided:

- The authors, title and full bibliographic details is credited in any copy;
- A hyperlink and/or URL is included for the original metadata page; and
- The content is not changed in any way.

For more information, including our policy and submission procedure, please contact the Repository Team at: E.mailbox@hud.ac.uk.

<http://eprints.hud.ac.uk/>

**‘There must be a poetry of sound that none of us knows ...’
Early British documentary film and the prefiguring of *musique concrète****

GEOFFREY COX

Department of Music and Drama, Creative Arts Building, University of Huddersfield,
Queensgate, Huddersfield, West Yorkshire, UK. HD1 3DH.

Email: g.m.cox@hud.ac.uk

Abstract

Standard histories of electronic music tend to trace the lineage of *musique concrète* as lying mainly in the Futurists’ declarations of the 1910s, through Cage’s ‘emancipation’ of noise in the 1930s, to Schaeffer’s work and codifications of the late 1940s and early 1950s. This article challenges this narrative by drawing attention to the work of filmmakers in the 1930s that foreshadowed the sound experiments of Pierre Schaeffer and thus offers an alternative history of their background. The main focus of the article is on the innovations within *documentary* film and specifically the sonic explorations in early British documentary that prefigured *musique concrète*, an area ignored by electronic music studies. The theoretical and philosophical underpinnings of the documentary movement’s members, particularly their leader John Grierson, will be compared with those of Pierre Schaeffer, and the important influence of Russian avant-garde filmmaking on the British (and *musique concrète*) will be addressed. Case studies will focus on the ground-breaking soundtracks of two films made by the General Post Office Film Unit that feature both practical and theoretical correspondences to Schaeffer: *6.30 Collection* (1934) and *Coal Face* (1935). Parallels between the nature and use of technologies and how this affected creative outputs, will also be discussed, as will the relationship of the British documentary movement’s practice and ideas to post-Schaefferian ‘anecdotal music’ and the work of Luc Ferrari.

1. INTRODUCTION

The making of links between differing artistic practices and aesthetics is a fundamental of creative practice. The notion of influence has been augmented in the latter half of the 20th century by the more complex ideas inherent in post-modernism and intertextuality such that the very idea of originality has been questioned. In its attempt to examine precursors of *musique concrète*¹ within the sonic experiments of the British documentary movement of the 1930s, this article does not try to trace influence, adhering instead to Richard S. James’ point that avant-garde sound-on-film techniques should ‘not be misconstrued to constitute an obligatory foundation upon which electro-acoustic music would eventually be based ... [there is] no direct, antecedent-consequent relationship’. So the work of the British documentary movement did not *lead to musique concrète*, nor were such precursors deliberately ignored by Pierre Schaeffer, rather these ‘foreshadowings ... serve to put electro-acoustic music into perspective as a natural outgrowth of basic trends and interests in twentieth-century music’ (1986: 74, 89). In this sense, the foundation of my approach acknowledges links and ‘alternative histories’ on an intertextual level coming as they do from Barthes’ ‘innumerable centres of culture’ (1977: 146) but existing as (relatively) parallel streams and linked as much by their use of technologies (and their limitations) as by conceptual thought and aesthetic product.

In the absence of much knowledge or experience of film or film sound, my own first attempt at composing a documentary soundtrack was based heavily on *musique concrète*, something very familiar to me as a composer and which seemed applicable to what a soundtrack made of location sound and interviews might consist of (all that was available for

* I would like to acknowledge the help of Dr Maria Castro in research relating to IMC and the Cannes 1954 Film and Music conference.

¹ The original French for this term is used in this article except when referencing North and Dack’s English edition of Schaeffer’s *A la recherche de musique concrète* (2012) and his 1954 article with unknown translator. These translations use ‘concrete music’.

the project). Only later did I discover that similar ideas had been put into practice almost as soon as sound-on-film became possible in the late 1920s and had been further developed by the British documentary movement from 1934. I have since explored these 'nodes' of *musique concrète*, documentary sound, and the early British documentary movement both theoretically and in practice (e.g. Marley and Cox, 2001, 2012). Specifically, it was the discovery of an actual crossing of paths of two main linking protagonists, Pierre Schaeffer, 'inventor' of *musique concrète*, and John Grierson, 'father' of the documentary movement, at Cannes in 1954 that has acted as a catalyst for this article.

2. LITERATURE REVIEW

2.1 Texts and key films

Discussion of the innovative use of sound in early film is relatively rare but by no means undocumented within electronic music histories and includes commentary on its relationship to later electroacoustic music. Richard S. James' 'Avant-Garde Sound-on-Film Techniques and Their Relationship to Electro-Acoustic Music' (1986) takes a fairly broad if brief view. More detailed are sections in Douglas Kahn's *Noise, Water, Meat* (2001), and Andrey Smirnov's revelatory *Sound in Z* (2013) contains highly detailed analyses of early-mid 20th century Russian innovations. John Mackay's account of Vertov's *Enthusiasm* (1931), *Disorganized Noise: Enthusiasm and the Ear of the Collective* (2003) is also very informative. All of these make some references to techniques that foreshadow *musique concrète*.

Within such texts and with reference to the manipulation of location or studio-based recordings, several key films are usually mentioned: Ruttmann's *Weekend* (1928), Eisenstein and Alexandrov's *Romance Sentimentale* (1930), Vertov's *Enthusiasm* (1931), Ivens' *Philips-Radio* (1931), Pudovkin's *Deserter* (1933), Vigo's *Zéro de conduite* (1933) and Hoérée's *Rapt* (1934). From this list only *Enthusiasm* and *Philips-Radio* qualify as documentary in the Griersonian sense of it being an 'instrument ... of education and illumination' (Grierson 1962: 4) enabled by a poetic 'creative treatment of actuality' (Grierson 1933a: 8) and with a filmic focus on ordinary working people. It is noticeable however, that mention of the sonic innovations of the British documentary movement led by Grierson in the 1930s in pursuit of this goal, is absent. This is surprising given that films such as *Song of Ceylon* (Wright), *Weather Forecast* (Spice), *Pet and Pott* (Cavalcanti), *6.30 Collection* (Watt and Anstey) (all 1934), *Coal Face* (Cavalcanti: 1935), *Night Mail* (Watt: 1936) and *Listen to Britain* (Jennings: 1941) amongst others all contain innovative and experimental use of sound material. Why British documentary should be ignored is unclear but one might suggest three contributory factors: the lack of appropriate equipment meant that none of these sound films were produced before 1934 (so too late for those privileging origination), their experimental nature is subsumed within a more-or-less socially purposive framework (so not avant-garde or abstract enough) and that there is no clear auteur to which they can be attributed (so not fulfilling the 'great men of history' hegemony). Even though he only actually directed one film, *Drifters* in 1929, if anyone can claim to be the 'great man' in the documentary story it is John Grierson due to his 'multifaceted, innovative leadership' (*ibid.*: 365). He is credited with the first use of the term 'documentary' in the modern sense in 1926 (Barsam 1992: 81), led a team of filmmakers at the Empire Marketing Board Film Unit (1927-1933) and then at The General Post Office Film Unit (1933-1937) and has been called one of the great film teachers (Ellis 2000: 49). He was a charismatic figurehead, and though sometimes maligned, can lay claim to being 'the person most responsible for the documentary film as English speakers have known it' (*ibid.*: 363).

2.2 The opportunities for documentary

On a general level, the more open and fluid nature of documentary film as opposed to the imperative of continuity editing in narrative-driven fiction film

offered immense opportunity for collage ... to rearrange fragments of the world ... [T]he use of sound took many forms, often furthering the principles of collage through contrapuntal and non-synchronous forms ... Grierson's efforts to define documentary as an alternative to Hollywood ... led him to encourage considerable experimentations with sound in the early 1930s (Nichols 1996).

The leading lights in the British documentary movement are well-known within documentary film studies, where one *does* find substantive mention of their experiments in sound. A recent example is Carolyn Birdsall's chapter, *Resounding City Films* in Holly Rogers' edited collection, *Music and Sound in Documentary Film* (2015: 21-40), The work of John Grierson, Harry Watt, Alberto Cavalcanti, Basil Wright, Edgar Anstey, Paul Rotha, Stuart Legg, Benjamin Britten, W.H. Auden, Humphrey Jennings *et al* is well documented and in terms of discussion and analysis of sound that *includes* allusion or reference to *musique concrète*, Donald Mitchell (1981), John Corner (1996), Philip Reed (1999) and Anna Claydon (2011) deserve specific mention.

3. GRIERSON AND SCHAEFFER AT CANNES

Just months before his death, in February 1972. Grierson gave an interview in which he made an intriguing statement that offers a direct link between the work of the British documentary movement of the early 1930s and Schaeffer's work of the late 1940s and early 1950s:

Of course the French are always finding phrases and discovering terms for things but generally about ten years late, for example *musique concrète*. When that started appearing I was one day in Cannes invited, I think by Jean Cocteau, to hear this amazing new world of *musique concrète*, I laughed if I did not sneer because it's something we'd all been playing with a long time before, maybe twelve years, something like ten years before. We'd Britten and all sorts involved (Sussex, 1975a: 207).

The 'one day in Cannes' Grierson refers to was almost certainly in April 1954 when a 'Music and Film' exhibition was organised in conjunction with the 7th international film festival at Cannes by the International Music Council, an organisation founded in 1949 by UNESCO. The UNESCO sponsored exhibition featured a discussion 'devoted to new sound techniques in music and in particular to *musique concrète*, a new form of sound creation' (Schaeffer, 1954: 18). Published in UNESCO's *Courier* journal, Schaeffer's article (with unknown translator) heralded the exhibition at which he gave a lecture (Gayou 2007: 103), assisted by composer Maurice Blackburn (Hellégouarch 2011: 5-6). Jean Cocteau was president of the Cannes Grand Jury in 1954 and Grierson was at the festival to present a film, *Man of Africa* (Frankel 1953) (Hardy 1979: 188). Grierson was an acquaintance of Cocteau and wrote about meeting him in a report on his visit to Cannes in 1953, the only other year Cocteau was president of the jury (Grierson 1953: G6.5.2). He also would have known Blackburn as a composer he employed for many of the early Film Board of Canada productions from 1941 (Hardy 1979: 118); Grierson was the first Film Commissioner of the Board, 1939-1945, a post he took up after leaving the GPO Film Unit in 1937. Grierson was also briefly an official advisor to UNESCO director general on mass media and public information matters, 1947-48 (Ellis 2000: 229). Blackburn was in France in 1954-55 to spend time with Schaeffer's *Groupe de recherches de musique concrète* at the *Radiodiffusion-Télévision Française* (Hellégouarch 2011: 5-6). Cocteau himself knew Schaeffer and was familiar with his work on

musique concrète from its inception in 1948 and is known for experimental work with concrete sound and music in his own films (Anderson 2015). So though Grierson's memory of dates is suspect as the work with Britten and others he refers to is closer to twenty years prior to 1954, it seems clear that this is the event Grierson was thinking of. We are left with the intriguing possibility of him being introduced in person to Schaeffer, perhaps by Cocteau or Blackburn though this is speculation on my part.

The films Grierson alludes to in his interview must be *Coal Face* and *Night Mail*, the ground-breaking documentaries for which Benjamin Britten wrote scores and include spoken poetry written by Auden. I suspect he is also thinking of *6.30 Collection* which features particularly innovative use of sound and was produced at the very start of the GPO Film Unit's adoption of the medium; Grierson wrote about the sonic innovations in this film at the time (e.g. Grierson 1934b: 215-221). *Coal Face* and *6.30 Collection* will be discussed in due course but the background to what Nichols calls these 'considerable experiments in sound' in early British documentary must be addressed first.

4. BACKGROUND AND GENESIS

4.1 General influences

The Russians were a major influence on the fledgling British documentary movement. Many of the key Russian silent and early sound films of the 1920s and early 1930s were shown internally at the EMB (screenings initiated by Grierson as 'texts for study') and London Film Society from 1927 onwards (Ellis 2000: 36-8, 42). Films such as Eisenstein's *Battleship Potemkin* (1925), Turin's *Turksib* (1929) and Dovzhenko's *Earth* (1930) were shown. *Potemkin's* British premiere was part of a double bill also featuring the premiere of Grierson's *Drifters* at the London Film Society in 1929. Outside of the Russian influence, Flaherty's *Nanook of the North* (1922), Cavalcanti's *Rien que les heures* (1926) and Ruttmann's *Berlin: Symphony of a Great City* (1927) were all important and helped the movement synthesise a unique method of their own based on the naturalism of Flaherty, the allusive montage, social purposiveness, and daring of the Russians, and the avant-garde and more formalist approaches of Cavalcanti and Ruttmann respectively.

4.2 Vertov and *Enthusiasm*

All of these films are silent and it was Vertov's *Enthusiasm: Symphony of the Don Basin* (1931), a propaganda film about the Don coal miners' attempts to fulfil their Five-Year Plan quota in just four years that offered the British documentary movement insight into the possibilities of the new technology. It was Vertov's first sound film, and one of the first in which sound was recorded on location. In a review in socialist newspaper *The Clarion*, Grierson is quite scathing of the film's formalism and overlong, directionless structure but nevertheless says that:

I have never set eyes on a film that interested me more, nor one that demanded more solid criticism ... At the same time I must indicate some of the amazing things there are in this film. It is so full of ingenuities that practitioners like myself will be feeding on its carcass years from now. Never were workmen so energised by a camera ... As I suggest it all leads nowhere, but it certainly leads furiously. Much of the same sort of thing can be said of the sound effects. You will find sound cut on beats to the beat of the image; you will find it syncopating with the images, you will find most excellent passings of melancholy sound into musical sound: you will hear it distorted till it screams, and you will find feeling in it (Grierson 1931: 349).

Grierson's words are prophetic indeed; not only is *Enthusiasm* available in a restored version on commercial DVD today and regarded as a seminal pioneering sound film, Mackay goes as far as to suggest that Schaeffer's *musique concrète* owes its actual origins to Vertov (2003: 2). There is certainly a link between Vertov and the Italian Futurists via Vertov's knowledge of the work of photographer Rodchenko and the poems of Mayakovsky from 1916, themselves deeply influenced by Russolo's *The Art of Noises* manifesto (1913). Marinetti's visit to Moscow and the publication of Futurist texts in Russia from 1914 led to work such as Mayakovsky's sound poem 'Little Noises, Noises, Booms' of 1914, derived from Russolo's ideas (Kahn 1999: 139-40, 393). Grierson was also familiar with Rodchenko from the early 1920s via reviews in American periodical *The Dial* (Aitken 1990: 113) and he probably knew of the Futurists via his praise for the Vorticists, an English art movement derived from Russian and Italian futurism (*Ibid.*: 62). In reviewing *Gas* in 1925, which had set designs by American vorticist Rudolph Weisenborn, he praised the noise-based music of the play as 'torn from the babel of modern machinery', concluding they 'make an art a little worthy of turbines and dynamos' (Grierson 1925: 11).

Vertov's interest in sound thus predates his work in film and indeed led to it: 'the kino eye was born of a keen but frustrated ear'. In his attempt to build a 'Laboratory of Hearing' in 1916 in which he wanted 'to transcend the limits of ordinary music [he] decided that the concept of sound included all of the audible world' (Kahn 1999: 139-40). Technological limitations at the time proved frustrating though and he remembered how one day in the spring of 1918

... returning from a train station. There lingered in my ears the signs and rumble of the departing train ... someone's swearing ... the puffing of the locomotive ... whispers, cries, farewells And thoughts while walking: I must get a piece of equipment that won't describe, but will record, photograph these sounds. Otherwise it's impossible to organize, edit them. They rush past, like time (*ibid.*: 140).

Grierson's praise for Vertov's sonic 'ingenuities' in *Enthusiasm* therefore provides a link back to Futurism, a movement however that Schaeffer was always reluctant to acknowledge. He hardly mentions the Futurists in his 1952 publication for example and when he does mistakes Marinetti for Russolo (2012: 88-9). He refers to them only once in his huge *Treatise* of 1966 and then only as the 'Italian noise men'. Kahn asserts that neither Schaeffer nor Pierre Henry were aware of them at the time of their earlier work but were soon after, a fact criticised by Maurice Lemaître in the introduction to his 1954 edition of *The Art of Noises* (Kahn 1999: 138). There is little doubt however that intertextually, the Futurists are a founding precursor of *musique concrète*

5. A POETRY OF SOUND

5.1 A new art

In the wake of the beginnings of sound film, the famous 1928 'Statement' by Eisenstein, Pudovkin and Alexandrov (1985: 83-85), and Pudovkin's 1929 'Asynchronism as a Principle of Sound Film' (1935: 155-65) called for sound to be a new montage element that should be asynchronous with and act in counterpoint to the image rather than emphasising synchronous dialogue and 'naturalism'. This was a huge influence on avant-garde film and early documentary and Grierson wrote about this specifically in a review of Pudovkin's *Deserter*, a film that attempts to demonstrate these principles (1933b: 782). With reference to this article's title and with clear parallels to Vertov's statement above, Grierson had already said in 1930 that:

There must be a poetry of sound which none of us knows ... Meanings in footsteps, voices in trees, and woods of the day and night everywhere. There must be massed

choruses of sound in the factory and in the street and among all men alive ... I know not the first thing about them, though I have, like everybody else shut my eyes ... and sat for hours trying to make something of the door-bangings and footfalls and crazy oddments of conversation that broke the plush darkness of a London night. We are the tyros, all of us, with a new world opening up on the horizon. I see no reason why anyone at the moment should envy Columbus (13).

Grierson wrote other similar articles in the early 1930s as well as giving public lectures such as those to the Department of Adult Education at Leicester University (Grierson 1934a: G3.10).

5.2 Technical limitations and correspondences

The film units Grierson led first at the EMB and then at the GPO did not get any sound equipment until 1934 and when they did it was of a relatively poor quality that marred and hampered subsequent output. As Enticknap points out, the optical sound cameras bought by the GPO (using the Visatone-Marconi system) had by 1934 already been dismissed as inferior to the industry standards set by, for example, the American RCA system. The system was bought primarily because it was cheap. Signal to noise ratios were poor and according to Watt the system only allowed the mixing of up to two channels in post-production compared to five or six in systems used in commercial cinema (2011: 196). Editing capacity was very crude and portability limited making location recording difficult. The resulting technical shortcomings in films like *6.30 Collection* and *Coal Face* are all too obvious but the limitations meant that the filmmakers made no attempt to 'emulate the recording and mixing styles that had evolved and been enshrined in mainstream professional practice' (*ibid.*: 197). The conventional methods of combining voices, noises and music did not or could not apply, leading to a distinctive and exploratory output. This is one of the main reasons why the films made by the GPO Unit during this early period have had such cultural significance and influence. One might make a similar argument about Schaeffer's early reliance on turntables and direct-to-disc recording between 1948-51 and the resulting works that he describes as being 'discontinuous in style' and sounding like 'everything is hacked out with a billhook' (2012: 18). This description could easily apply to the soundtracks of the GPO films such that Schaeffer's more 'anecdotal' early works like *Étude aux chemins de fer* (1948) bear noticeable sonic similarities to say, the latter stages of *6.30 Collection* even leaving aside the similar concerns with sound-source dissociation that will be addressed shortly.

In terms of actual techniques, as James has suggested, there are striking parallels between avant-garde sound-on-film work and electroacoustic music such that 'methods for splicing, rearranging, altering, and reversing of sounds recorded on movie film have direct corollaries in electro-acoustic music in general and *musique concrète* in particular' (1986: 88). Grierson himself stated that 'if your sounds are on film you can with a pair of scissors and a pot of paste join any single sound to another. You can orchestrate bits of pieces of sound as you please. You can also, by re-recording, put any single sound on top of another sound' (1934c: 102). This principle of sound montage is echoed by Schaeffer even before tape replaced disc recording when he describes *musique concrète* as being made of pre-existing elements, 'taken from any sound material ... then composed experimentally by direct montage' (2012: 25). I would suggest Schaeffer's use of a term drawn from film editing is a conscious one and the parallels are even stronger once he began using tape: the ability to perform direct manipulation of sonic material drawn from the everyday world in the manner both he and Grierson suggest, almost by itself implies not only similarity of method but potentially of outcome too.

5.3 Sonic abstraction

As suggested, the technical limitations at the GPO often led to experiment with post-production sound as of necessity. This did not dampen sound's enthusiastic adoption by filmmakers in the team, amongst whose company composer William Alwyn said '... we had to rely on modest resources, which meant experiment, experiment and again experiment' (Ellis 2000: 80). Similarly, Roger Manvell wrote that within the GPO unit, 'experiment was the new watchword [that] acted like magic in the mid-thirties. You were just nowhere if the film you had just made or were planning was not an experiment in some way' (*ibid.*: 83). In 1934 Basil Wright and critic B. Vivian Braun published their own 'Manifesto: Dialogue on Sound' (Wright and Braun 1985: 97) obviously drawing on Eisenstein and Pudovkin:

W.: Music is abstract.

V.B.: But music confines itself, very rightly, to noises produced by a limited number of special instruments. You are at liberty to orchestrate any sound in the world.

W.: Once orchestrated they will become as abstract as music. Orchestrated abstract sound is the true compliment to film.

The idea of 'orchestrating any sound in the world' clearly relates to both Vertov's and the Futurists' proclamations. Similarly, the relationship between the idea that any sound, once 'orchestrated' will become as abstract as music, owes obvious kinship to Schaeffer's notions of reduced listening and the sound object and his own desire to remove referentiality and what he calls the 'anecdotal' nature of everyday sounds that renders them 'antimusical' (Schaeffer 2012: 12). Edgar Anstey further comments:

we were recording noises of the bits of equipment [at the Central Telegraph Office] with the idea of using them ... as a kind of musical score. Our first approach to sound was to use it in a kind of abstract way, in a mechanistic way ... and try to take sounds and orchestrate them. Dialogue came much later ... we were terrified of getting close to the theatre or literature (Sussex 1975a: 46).

Similarly Harry Watt recalls that they were

... more interested in sounds than in speech. We turned our ears to every machine, to every audible process, hoping to isolate sounds which would communicate the essence of our subject matter. We were not interested in recording dialogue or commentary (Ellis 2000: 87).

Again, both statements with their mention of abstract and mechanistic approaches and of isolating sounds are reminiscent of Schaefferian thinking and the eschewing of dialogue also finds a parallel: Schaeffer describes sounds where 'meaning predominates' and is the 'main focus' as being like 'literature and not music' (Schaeffer 2012: 13).

6. ALBERTO CAVALCANTI

Mention must be made here of Alberto Cavalcanti, Brazilian filmmaker and sound expert, employed by Grierson specifically to work on sound at their newly equipped studio in Blackheath in 1934. Cavalcanti had become bored with his commercial work in France that was heavily focused on dialogue and told Grierson he wanted to 'experiment in sound' (1975a: 48), to which he replied he was welcome as his 'boys knew nothing about sound'

(Sussex 1975b: 207). Cavalcanti's credentials were impeccable in that he had been at the heart of French avant-garde film in the 1920s (his *Rien que les heures*, a cross between avant-garde film and documentary has already been cited as highly influential on the British crew) and had extensive experience in commercial early sound film comedies. Thus he had the professional expertise to help with the nascent skills of those working at the GPO as well as providing a 'unique symbolic link between the avant-garde of the twenties and documentary of the thirties' (Ellis 2000: 83). His first work was to help on *6.30 Collection* (Miller 2011: 9) and he had a key role in production, sound conception and editing for *Coal Face* (though not credited) and *Night Mail* amongst others. Anstey comments that:

It was not entirely because we seldom worked with synchronous equipment that we thought from the first in terms of the free use of sound. The slavish linking of sound with its actual corresponding picture seemed quite unnecessary ... We had also in the mid-thirties, indeed the inspiration of Alberto Cavalcanti. (Ellis 2000: 88).

Basil Wright adds that 'his ideas about sound were so liberating that they would liberate you in about a thousand other ideas' (Sussex 1975b: 207). Harry Watt says simply that 'I believe fundamentally that the arrival of Cavalcanti in the GPO film unit was the turning point of the British documentary' (Sussex 1975a: 49). Cavalcanti himself wrote one of the more detailed accounts of sound in film in 1939 in which he advocates the 'non-naturalistic' use of sound and concludes that 'the picture is the medium of statement, the sound is the medium of suggestion...[and] the most suggestive sound devices [music and noise] have been nonsync' (Cavalcanti 1985: 109-10). This idea had already been mooted in 1936 by Auden as a result of his work on *Night Mail* with Watt when he suggested that 'the soundtrack holds the abstraction' as a compliment to the 'definite' nature of the image (Miller 2011: 12-13), and was later echoed by Robert Bresson: 'a sound always evokes an image; an image never evokes a sound' (Burch 1985 [1965]: 200).

I will now turn to two GPO Film Unit films as practical illustrations of the links and divergences between Schaeffer's ideas and the use of sound by the British documentary movement.

7. THE FILMS

7.1 *6.30 Collection* (1934, 15 mins) Dir.: Harry Watt and Edgar Anstey. Prod.: John Grierson.

This straightforward film is about a London postal sorting office, structured around the arrival of the mail to its complete despatch. It is probably the first documentary made with entirely authentic location sound (Grierson 1934b: 217) though this sound is rarely, if ever, used truly synchronously. It offers both compositional and theoretical correspondences to Schaeffer's approach. There is no traditional music as such in the film and the short title theme, though couched in a fairly conventional musical manner in terms of rhythm and melody, could almost be said to be pure *musique concrète* (at least in terms of its early incarnation), made up as it is from a kind of noise orchestra described by Grierson as consisting of:

One [film] rewriter (Legg), one trumpet, two typewriters (office staff), one empty beer bottle (blown for a ship's siren), one projector (by the projectionist), some conversation, two pieces of sandpaper (Elton), the studio silence bell (myself), cymbals and triangle (Wright). Walter Leigh arranged and conducted. (*ibid.*: 216).

This brief opening music gives way to the sound of an unseen aeroplane flying over the capital, something Grierson alludes to thus:

another curious fact emerges once you start detaching sounds from their origins, and it is this. Your aeroplane noise may not become the image of an aeroplane but the image of distance or of height. Your steamer whistle may not become the image of a steamer but of isolation and darkness (Grierson 1934c: 103).

Again, a parallel with *musique concrète* is apparent in this ‘detaching’ of sounds, though the signification Grierson suggests this engenders corresponds more to Schaffer’s *comprendre* listening mode than his preferred, *entendre* which bars all indicative listening.² In terms of the sonic make-up of the film we return to Anstey’s ‘ears’, turned ‘to every machine, to every audible process, hoping to isolate sounds which would communicate the *essence* [my italics] of our subject matter’. So sounds become isolated but as a result also symbolic.

7.1.1 Crossing of sound

In the latter half of the film the mailbags are seen being loaded into lorries and we hear the sound of engines and the men talking and whistling. There is then a cut back to the now empty sorting office and we see and hear a man sweeping up but the sound accompanying the sweeping changes to the sound of a steam train before we actually cut to the train image. This purely sonic but also metaphoric ‘crossing of sound’ as Grierson calls it (1934b: 217), is very similar to the kind of technique Schaeffer attempted in order to rid sounds of their source meaning by making purely timbral connections between them; the sounds of the sweeping brush and the puffing of the steam train have quite similar timbres and morphologies. However, in *6.30 Collection* we do, at some point, see the brush sweep, train and eventually the aeroplane mentioned earlier as ‘we cross the chorus of destinations across half the world’ (*ibid.*) i.e. understand the implication that the mail is on its way to being delivered worldwide. At the same time we *hear* the previous sounds of the men talking and especially whistling so the threads of meaning are retained – these men (and their machines) helped in a crucial way to make this happen. As Grierson comments, sounds detached from their origins can be used as ‘images of those origins’ (1934c: 103). A contemporary review of *6.30 Collection* says its ‘glorious racket is orchestrated into a minor symphony of rush, bustle and efficiency’ (N.a. 1934: 61).

7.1.2 Anecdotal sound

There is an important distinction here that embraces the ‘annoying’ persistence of ‘anecdote’ and ‘drama’ in sounds that Schaeffer wanted to remove. This suggests more of an allegiance with Luc Ferrari’s ‘anecdotal music’ where the retaining of source-meaning in sounds is considered positively desirable. Ferrari had been working for Schaeffer at the GRM from the late 1950s but had become disillusioned with ‘bracketing off’ of sonic meaning from the sounds they were recording in the studio, treating them ‘as if they were notes’ (Caux 2012: 129). Yet, as soon as he ‘walked out of the studio with the microphone and the tape recorder, the sounds [he] would capture came from another reality. That led to the unexpected discovery of the social’ (*ibid.*). Ferrari describes these sounds as offering another discourse that was linked to narrative and he termed their use in a musical context ‘anecdotal’, in defiance of Schaeffer’s attempt to eschew what *he* termed the anecdotal (*ibid.*: 130):

To incorporate the social within sound, to capture the voice of people talking in the street, the metro, the museum ... we are like wandering ears stealing sound in the same way you would take a picture. That voice becomes a found object in the

² Derrida has criticised Husserl’s phenomenology upon which Schaffer’s *entendre* mode is based for ignoring the fact that indicative signification is inescapably inherent in all ‘empirical existents in the world’ (Kane 2007: 18).

dramatic form. So that means incorporating society, intimacy or an expression of feelings ... (Caux 2012: 36).

This description echoes Grierson's 'poetry of sound' of decades before as well as comments he made about the intimacy generated by recorded conversations in *6.30 Collection* and how 'eavesdropping ... may yet be one of the pillars of our art' (1934b: 217). It also references Vertov's idea of 'photographing sound' from even earlier and crucially allows for the social aspects of found sounds to be part of *musique concrète*. So whilst in contrast to Ferrari any social content or purpose seems absent from Schaeffer's thinking, the Griersonian vision for documentary had always been strongly socially purposive. This relates to his philosophical idealism and belief in social reform through education and collective effort.³ The idea that sonic societal elements can become found objects, potentially even sound objects in film, yet retain their social meaning, strongly corresponds with the sonic ethos of the documentary movement and can be directly applied to the way sound is used towards the end of *6.30 Collection*. Ferrari concedes that his incorporation of the *found* object into music in the late 1950s had already been a technique used in film 'for a while' (Caux 2012: 130). Thus, the malleable yet powerful source-bonding nature of sound is inherently recognised by Ferrari and Grierson and exploited, especially by the use of asynchronous sound. This echoes the statements of Cavalcanti, Auden and Bresson quoted above, as well as those of Boulez (see below) and Derrida who offered critiques on the virtual impossibility of Schaeffer's phenomenology-based bracketing off of a sound's source meaning.

7.2 *Coal Face* (1935, 12 mins). Dir., Sound dir. [uncredited]: Alberto Cavalcanti; Prod.: John Grierson. Music: Benjamin Britten. Verse [uncredited]: W.H. Auden.

Coal Face offers different correspondences to *musique concrète*. Unlike *6.30 Collection* no location recordings are used, the entire soundtrack being made up of Britten's score and a voice-over. The score consists of piano and choir (singing mostly Auden's words) and building on Walter Leigh's example, a host of percussion instruments, household objects and other mechanical devices. Everything that is heard in the film forms part of Britten's score (including the voice-over) and he was involved at a deep level in the structuring of the film (Reed 1999). Publicity for the film described it as an 'experiment in sound' (Aitken 1990: 143) in which Cavalcanti had a major role and despite getting no official credit 'cut the whole film completely' and was responsible for 'the whole conception of sound' (Sussex 1975b: 206). It is a compilation film mostly made from pre-existing footage of coal mining. Its tone is ambiguous but 'exceedingly searching' and atmospherically dark throughout (London 1992 [1936]: 222), containing as it does an element of implied strong critique of the important but dangerous and controlling coal industry; the commentary points out, for example, that five men are killed every day in the coal industry in Britain.

7.2.1 Modernism

John Corner has dubbed the film's dissonant and heavily percussive tones as 'modernist realism' (Corner 1996: 60). The relationship of the documentary movement to

³ The importance of philosophical idealism to Grierson's thinking and practice stemming from his university study of Hegel and others is crucial to his exploration of the aesthetic for social purposes in documentary and explains the movement's embracing of more avant-garde practices to that end (Aitken 1990). Grierson's approach is idealistic and essentialist and based on the concept of an underlying transcendental reality, drawing a 'distinction between the real and the phenomenal' (*ibid.*: 119). Grierson privileges the notion of an abstract, 'poetic reality which existed beneath the rational' (114). This chimes with Schaeffer's adherence to the Husserlian phenomenological critique of empirical realism and his desire for the sound object to be 'an objective yet ideal entity'; the sound object becomes a 'specific essence', 'transcendent to perception' and essentialist in nature (Kane 2007: 15-17). So, Grierson and Schaeffer's philosophical background is linked by an idealist and essentialist underpinning that profoundly infected both their approaches.

modernism, a movement that incorporates *musique concrète* though also problematically,⁴ is a complex one. For example, the formalist tendencies of the Russians and others were considered a powerful aesthetic vehicle for socially purposive art but viewed as ‘reaching for the moon’ (Grierson 1929: 13) when employed as an end in themselves. So modernism had a qualified influence stemming back to Grierson’s exploration of modernist writing and painting (e.g. Vorticism) via pages of *The Dial* and his reviews for the *Chicago Evening Post* in the 1920s (Aitken 1990: 113); members of the movement also had a general antipathy to romanticism (Ellis 2000: 91). The unsentimental and anti-romantic approach is a hallmark of the films, some of which certainly bear comparison to the abstraction of modernist creativity, which arguably reached its zenith in *Coal Face*. Britten himself described it at the time as ‘highly experimental stuff’ (Reed 1999: 76).

7.2.2 Imagining *musique concrète*

The crucial aspects of Britten’s score that are relevant here are those that Mitchell describes as ‘imagining a kind of *musique concrète*’ and ‘musically conceived’ such that there is ‘none of the customary friction between the two worlds of sound – “noise” and music’ (1981: 83). In other words Britten’s score (which includes a reversed cymbal sound to represent the rapid transit of a train), features some of the most radical timbral experiments he would conduct. Claydon suggests Britten’s work at the GPO established him as ‘an explorer of *musique concrète*’ (2011: 183). Britten uses the noise orchestra to mimic action on the screen, sometimes synchronously, though mostly more obliquely, but the invention in terms of the sheer sonic exploration and wide palate of timbres developed and used in trying to devise appropriate sounds, certainly justifies the proto *musique concrète* tag. It corresponds to what Kahn says more generally about some 1930s film soundtracks, namely that, ‘one could sit in a movie theatre with one’s eyes closed and hear something similar to *musique concrète*’ (Kahn 2001: 139). The penultimate section of the film, indicated as X and X1a in the (unpublished) score and lasting about 2’ 30”, is most illustrative of Kahn’s notion since it features the noise orchestra exclusively, with no accompanying conventional music and with only sporadic and pithy voice-over informational fragments. It was composed last and in close collaboration with Cavalcanti (Reed 1999: 76). The scenes depict the movement and use of coal in industrial settings. The ensemble in this section consists of (with visual correspondence): side drum, chains, sandpaper, whistles (shunting coal wagons), coconut shells (horse-drawn coal-carts), triangle, suspended cymbal, trip gear (electricity generator), bass drum, drills, sandpaper and whistle (locomotives), cup in a bucket of water, film rewriter, cymbals, bass drum, notched wood with wooden sticks, cardboard cylinder (ships), sheet metal struck with wooden mallet, gong, chains and whistle (factory scenes).

Writing in 1936, Kurt London describes Britten’s music as

... transcending the score of musical notes and absorbs within itself the sound of real life (in a stylised form) whether it be of single voices, of choruses, or natural noises, by turning it to music and giving it rhythm ... It is astonishing to observe how, with the most scanty material, using only a piano and a speaking chorus, he can make us dispense gladly with realistic sounds (London, 1992: 221-2).

London’s insightful description is testament to Britten and Cavalcanti’s creative skills in that these ‘natural sounds’ can *almost* be taken for realistic sounds (albeit surrogate ones that seem to exist in a surreal parallel world) but at the same time they are structured and

⁴ Boulez described it in 1958 as ‘execrable ... a musical flea market’ in part due to the inevitable residual signification of the sounds used. It did not therefore adhere to the complete determinism of serialism as its composers were not in proper control of their material so were ‘amateurs, as abject as they are penurious’ (Boulez 1991: 226-7).

orchestrated into music. London concludes that this approach makes a much stronger impression than conventional musical accompaniment and as a result the scoring of Britten (and Leigh) creates 'universal representations of sound'.

Figure 1. The first page of section X of Britten's score for *Coal Face* followed by pages 4-7. The voice-over is detailed in the first line of the score (complete with rhythmic notation) and the make up of the percussion ensemble at the bottom of page one. The 'Percussion' line comprises more conventional instruments whilst the three lines of 'Extra percussion' form the noise ensemble. Required percussion or noise instrument changes are indicated by circled annotations (marked in red on the original). © Britten-Pears Foundation.

Copyright - please copy one of each part (Com., Perc., Extra part I, E-p. II, E-p. III)

Xo XIa

①

Commensalator

Percussion

Extra-percussion I

Extra-percussion II

Extra-percussion III

x1. Side drum

x2. Chains

x3. Sand-paper

x4. Whistle

Making up coal trains

pp marc.

pp

(drawing it along)

cut

in this yard three thousand weapons are

to mmm

p

slanted every day

to mmm

to mmm

to mmm

f

die

Footnotes to parts

35.

Instruments required:

x.1. Percussion: Side-drum, Block, Triangle, Cymbal, Bass drum, Gong.

x.2. Extra-part. 1: Chains, 2 Coconut shells, Large dill, cup & bucket of water, sand-paper.

x.3. " 2: Sand-paper, Trip-gear, Notched wood & wooden stick, Sheet of metal & wooden mallet.

x.4. " 3: Wooden whistle, Small cart or sand, asbestos, Small dill, Revolver, Hoister, Chains.

4

handhold use

cut

3

no malle

Ten million tons for the production of electricity

(♩ = Triangle, ♩ = Lyral with down stick)

Top-gear

round

(43)

electricity

p *arcu*

cur

f *di*

④ *12 notes*

triste molto *lento* *for* *loco-motion*

bars down

large drill

small drill

(13)

6

Corobation

Handwritten musical score for the first system. It consists of a treble clef staff and a piano accompaniment. The treble staff has a dynamic marking of *sf* and contains rhythmic patterns of eighth notes. The piano accompaniment includes a bass line with a *pp* dynamic and a treble line with a *sf* dynamic. There are slurs and accents throughout the system.

Handwritten musical score for the second system. It features a treble clef staff with *sf* dynamics and piano accompaniment. Annotations include "Side-drum (6 drum sticks)" in a circled bubble, "Sand-paper" in a circled bubble, "p maracas", and "Whistle". The piano accompaniment includes a bass line with a *sf* dynamic and a treble line with a *pp* dynamic. There are slurs and accents throughout the system.

Handwritten musical score for the third system. It consists of a treble clef staff with accents and piano accompaniment. The piano accompaniment includes a bass line with a *f* dynamic and a treble line with a *f* dynamic. There are slurs and accents throughout the system.

Handwritten musical score for piano, featuring a treble clef staff with a key signature of one sharp (F#) and a common time signature. The music consists of a series of eighth and sixteenth notes with accents. A dynamic marking of *fp* is at the beginning, and *sf* appears later. A large downward-pointing arrow labeled "cut" is positioned above the staff. Below the treble staff, a grand staff (piano and celeste) shows a rhythmic accompaniment of eighth notes.

Handwritten musical score with lyrics. The treble staff contains the lyrics: "Fifteen million tons are shipping." Below the treble staff, there are notes for "Cymbals" and "Bass drum" with dynamic markings *p* and *f*. The piano part includes a circled instruction "Cup in bucket of water (! = dipping, = emptying)" and another circled instruction "Reinforcer". Dynamic markings *ppp*, *mf*, and *f* are present.

Handwritten musical score with lyrics. The treble staff contains the lyrics: "with a stick" and "Take notice". Below the treble staff, there are notes for "Notched wood with wood stick" and "Take notice". Dynamic markings *sf*, *f*, *pp*, and *f* are present. The piano part includes a circled instruction "Take notice" and dynamic markings *pp*, *f*, and *pp*.

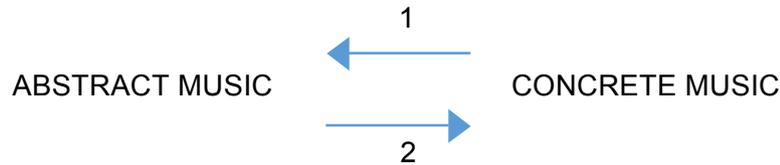


* Cardboard cylinders

8. CONCLUDING CORRESPONDENCES

8.1 Abstract or concrete music?

In Schaeffer's *In Search of Concrete Music* (2012) he presents a version of the following diagram representing a 'cycle' of 'abstract' music ('ordinary', conceived in the mind, notated theoretically, executed in instrumental performance) and 'concrete' music ('made up of pre-existing elements, taken from any sound material, noise or musical sound, then composed experimentally by direct montage') (25):



Arrow 1 denotes the potential effect of experiments in concrete music in the imagination of a musician who is happy to use the traditional orchestra ... Arrow number 2 represents the preliminary contributions made by classical methods to the composer of concrete music. (28)

Britten's score for *Coal Face* could be said to apply to either tendency – he uses traditional instruments (piano, voice and standard percussion) but *is* arguably 'imagining a kind of *musique concrète*' by augmenting them with a host of other noise-making objects; yet he uses classical methods (abstract conception, the score, conducting, a performance) in *orchestrating* those noises.⁵ Schaeffer can be seen here to be less dogmatic about his notion of *musique concrète* than might be assumed. Indeed he attempted the scoring and performance of a group of percussion instruments himself with the help of Gaston Litaize for *Etude aux tourniquets* (1948), though ultimately he rejected the method and ended up using recordings of the performance as raw materials for concrete manipulation for the 'real *Etude aux tourniquets*' (Schaeffer 2012: 16-17). Nevertheless, Tristram Cary has outlined a four-stage continuum of *musique concrète* compositional methods, ranging from the use of random found objects to 'scored prepared sounds' (1992: 117), suggesting the notion is far from alien to its realisation.

8.2 Filmmakers were first

Though as mentioned Schaeffer has been criticised for not acknowledging his precursors in the field of pure music, he *has* shown more acceptance of the contribution of film sound. Indeed to finish I will return to the 1954 Film and Music exhibition at Cannes which Grierson was rather disparaging about by asserting that 'it's something we'd been all playing with a long time before'. Perhaps he would have been less critical had known that in *The Courier* article written as a precursor to the conference, Schaeffer said in the final section headed 'Film makers were first', that:

As for the cinema, it might well be said that this is the sort of music it has been dreaming of for years. Filmmakers did not wait for us before producing noises in the soundtrack that could convey more than any cello could do.

And in describing the use of sound in *A Man Walks in the City* (Pagliero, 1951) that:

⁵ A correspondence might also be drawn here to the soundworld and practice of Helmut Lachenmann's *musique concrète instrumentale* developed during the 1960s, whereby the score instructs acoustic instruments to be played in unusual ways so 'those qualities, such as timbre, volume, dynamics or duration, do not produce sounds for their own sake, but describe or denote the concrete situation' (de Assis 2012: 5).

By prolonged repetition a succession of street noises, suggestive enough of itself, is made into a 'sound phrase'. This phrase never loses touch with reality, yet it is detached from it, like the theme of a symphony. In this way Orson Wells, Bunuel and many others have for years successfully sketched out their own natural concrete music (Schaeffer 1954: 20).

The idea of the sound phrase, never losing touch with reality, yet detached from it could very easily have been written by John Grierson twenty years earlier and can be applied directly to soundtracks of the British documentary movement of the 1930s.

Bibliography

- Aitken, I. 1990. *Film and Reform: John Grierson and the Documentary Movement*. London: Routledge
- Anderson, L. 2015. Musique concrète, French New Wave cinema and Jean Cocteau's 'Le Testament d'Orphée' (1960). *Twentieth Century Music* 12(2): 197-224.
- Assis, P. de (2012). The conditions of creation and the haecceity of music material, <http://revues.mshparisnord.org/filigrane/index.php?id=422> (accessed 2/11/16).
- Barthes, R. 1977. 'The death of the author', *Image-Music-Text*, trans. Stephen Heath. London: Fontana.
- Barsam, R. 1992. *Non-Fiction Film: A Critical History*. Indiana: Indiana University Press.
- Birdsall, C. 2015. Resounding City Films. In H. Rogers (ed.) *Music and Sound in Documentary Film*. Abingdon: Routledge.
- Burch, N. 1985. On the Structural Use of Sound. In E. Weis and J. Belton (eds.) *Film Sound: Theory and Practice*. Chichester: Columbia University Press.
- Boulez, P. 1991. *Stocktakings from an Apprenticeship*, trans. S. Walsh. Oxford: Clarendon Press.
- Cary, T. 1992. *Illustrated Compendium of Musical Technology*. London: Faber and Faber.
- Caux, J. 2012. *Almost Nothing with Luc Ferrari*. Berlin: Errant Bodies Press.
- Cavalcanti, A. 1926. *Rien que les heures*, France.
- Cavalcanti, A. 1934. *Pett and Pott*. UK: GPO Film Unit.
- Cavalcanti, A. (uncredited) 1935. *Coal Face*. UK: GPO Film Unit.
- Cavalcanti, A. 1985 [1939]. Sound in Films. In E. Weis and J. Belton (eds.) *Film Sound: Theory and Practice*. Chichester: Columbia University Press.
- Claydon, A. 2011. National Identity, the GPO Film Unit and their Music. In S. Anthony and J.G. Mansell (eds.) *The Projection of Britain: A History of the GPO Film Unit*. London: Palgrave Macmillan.
- Corner, J. 1996. *The Art of Record*. Manchester: Manchester University Press.
- Dovzhenko, A. 1930. *Earth*. Soviet Union: VUFKU
- Eisenstein, S. 1925. *Battleship Potemkin*. Soviet Union: First Studio Goskino
- Eisenstein, S, Pudovkin, V and Alexandrov, G. 1985 [1928]. A Statement. In E. Weis and J. Belton (eds.) *Film Sound: Theory and Practice*. Chichester: Columbia University Press.
- Eisenstein, S. and Alexandrov, G.V. 1930. *Romance Sentimentale*. France: Sequana Films.
- Ellis, J. C. 2000. *John Grierson: Life, Contributions, Influence*. Carbondale: Southern Illinois University Press.
- Enticknap, L. 2011. Technology and the GPO Film Unit. In S. Anthony and J.G. Mansell (eds.) *The Projection of Britain: A History of the GPO Film Unit*. London: Palgrave Macmillan.
- Frankel, C. 1953. *Man of Africa*. UK: Group 3.
- Flaherty, R. 1922. *Nanook of the North*. USA / France: Les Frères Revillon.
- Gayou, E. 2007. *Le GRM, Groupe de recherches musicales. Cinquante ans d'histoire. Les chemins de la musique*. Paris: Fayard.

- Grierson, J. 1925. Vorticism Brought to Serve Drama. *Chicago Evening Post*, 27 February: 11. John Grierson Archive, University of Stirling, Apr 1898 – Jan 1927, G1A.3.10.
- Grierson, J. 1929. *Drifters*. UK: New Era Films.
- Grierson, J. 1929. Work for Highbrows. *The Clarion*, December: 13.
- Grierson, J. 1930. On the Talkie Horizon. *The Clarion*, January: 13.
- Grierson, J. 1931. Russia's Latest. *The Clarion*, December: 349.
- Grierson, J. 1933a. The Documentary Producer. *Cinema Quarterly* 2(1): 7–9
- Grierson, J. 1933b. For the Adult Mind. *New Britain*, November 8: 782.
- Grierson, J. 1934a. Lecture 9: Technique of Sound. John Grierson Archive, University of Stirling, Oct 1933 – Oct '39, G3.10.
- Grierson, J. 1934b. The G.P.O. Gets Sound. *Cinema Quarterly* 2(4): 215-221.
- Grierson, J. 1934c. Introduction to a New Art. *Sight and Sound* 3(11): 101-4.
- Grierson, J. 1953. Cannes Film Festival. John Grierson Archive, University of Stirling, Jan 1951 – Oct '57, G6.5.2.
- Grierson, J. 1962. Art and Revolution. John Grierson Archive, University of Stirling, Oct 1957 – Feb '72, G7.56.6.
- Hardy, T. 1979. *John Grierson: a Documentary Biography*. London: Faber and Faber.
- Hellégouarch, S. 2011. La pensée de Maurice Blackburn, compositeur de l'ONF. http://www.creationsonore.ca/wp-content/uploads/2014/10/travaux_solenn-hellegouarch_maurice-blackburn-compositeur-de-lonf.pdf (accessed 3/11/16).
- Hoérée, A. 1934. *Rapt*. France: Mentor-Film.
- Ivens, J. 1931. *Philips-Radio*. Netherlands.
- James, R. S. 1986. Sound-on-Film Techniques and Their Relationship to Electro-Acoustic Music. *The Music Quarterly* 72(1): 74-79.
- Jennings, H. and McAllister, S. 1942. *Listen to Britain*. UK: Crown Film Unit.
- Kahn, D. 1999. *Noise, Water, Meat*. Cambridge Mass.: The MIT Press.
- Kane, B. 2007. *L'Objet Sonore Maintenant: Pierre Schaeffer, Sound Objects and the Phenomenological*. *Organised Sound* 12(1): 15-24. London. K. (1992). *Film Music*. Salem: Ayer Company.
- Mackay, J. 2003. Disorganized Noise: *Enthusiasm* and the Ear of the Collective, <http://www.kinokultura.com/articles/jan05-mackay.html> (accessed 3/11/16).
- Marley, K. & Cox, G. 2001. *You Are Not I*. UK: <https://vimeo.com/8728732>.
- Marley, K. & Cox, G. 2012. *Introducing W. C. Lowry (2000), Cider Makers (2007), A Film About Nice (2010)*. On *Nothing but the hours*. Huddersfield: Huddersfield Contemporary Records, HCR04DVD.
- Miller, H. 2011. From *Turksib* to *Night Mail*. In *The Soviet Influence: from Turksib to Night Mail*. London: BFI, BFIB1130 (DVD sleeve notes).
- Mitchell, D. 1981. *Britten and Auden in the Thirties: the Year 1936*. London: Faber and Faber.
- N.a. 1934. *6.30 Collection*. Grierson, Anstey and Watt. *Cinema Quarterly* 3(1): 61.
- Nichols, B. 1996. Documentary and the Coming of Sound. <http://filmsound.org/film-sound-history/documentary.htm> (accessed 3/11/16).
- Pagliero, M. 1951. *A Man Walks in the City*. France: Films Sacha Gordine
- Pudovkin, V. 1933. *Deserter*. Soviet Union: Mezhrabpomfilm.
- Pudovkin, V. 1935. *Film Technique*, trans. I. Montagu. London: George Newnes Limited.
- Reed, P. 1999. Britten in the Cinema: *Coal Face*. In M. Cooke (ed.) *The Cambridge Companion to Benjamin Britten*. Cambridge: CUP.
- Ruttman, W. 1927. *Berlin: Symphony of a Great City*. Germany: Deutsche Vereins-Film.
- Schaeffer, P. 1954. Concrete Music. *The Courier* (3): 18-20.
- Schaeffer, P. 2012 [1952]. *In search of Concrete Music*, trans. C. North and J. Dack. Berkeley: University of California Press.
- Smirnov, A. 2013. *Sound in Z*. London: Koenig Books.
- Spice, E. 1934. *Weather Forecast*. UK: GPO Film Unit.
- Sussex, E. 1975a. *The Rise and Fall of British Documentary*. Berkeley: University of California Press.

- Sussex, E. 1975b. Cavalcanti in England. *Sight and Sound* 44(4): 206-9.
- Turin, V. 1929. *Turksib*. Russia: Vostok-Kino
- Vertov, D. 1931. *Enthusiasm*. Soviet Union: Ukrainfilm.
- Vigo, J. 1933. *Zéro de conduit*. France: Franfilmdis.
- Watt, H. and Anstey, E. 1934. *6.30 Collection*. UK: GPO Film Unit.
- Watt, H. 1936. *Night Mail*. UK: GPO Film Unit.
- Wright, B. and Braun, V. 1985 [1934]. Manifesto: Dialogue on Sound. In E. Weis and J. Belton (eds.) *Film Sound: Theory and Practice*. Chichester: Columbia University Press.
- Wright, B. 1934. *Song of Ceylon*. UK: GPO Film Unit.