Hugh Davies's Electronic Music Documentation 1961–8

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Abstract

I will provide an account of certain key aspects of Hugh Davies's electronic music research and documentation in the 1960s. By presenting evidence from a range of Davies's published (see 'selective bibliography') and unpublished writings I aim to show how Davies sought to document the development of the electronic music phenomenon up to 1967. In his writings from this period, Davies commented upon the fragmented nature of the electronic idiom, as evidenced—for example—in multiple parallel nomenclatures (*elektronische Musik, musique concrète*, Cage's 'Music for Tape-Recorder' group, Varèse's 'organised sound,'etc.). 'This proliferation of different names for what is basically the same kind of music,' he wrote in 1963, 'shows that a considerable number of composers in different countries are all trying to find a workable idiom.' (Davies 1963b) I aim to provide an account of some of the ways that Davies described the idiom's maturation as an international, interdisciplinary praxis, conveying – perhaps for the first time – a sense of the various international, aesthetic, and disciplinary threads coalescing into an apparently coherent whole, a process driven by the exchange of ideas across international and disciplinary boundaries.

Even in his earliest unpublished writings on the subject (dating from 1961), Davies drew attention to the presence of 'a large group of international composers' at the WDR studio in Cologne, and also indicated the existence of studios in various different countries throughout the world. Davies's tendency to classify by nation was not merely an organisational device, since he went on to emphasise the role of internationalisation as a potent source of musical innovation, both in the fledgling idiom of electronic music in particular and in avant-garde music more generally. Specifically, he pointed to the developmental avenues opened up via the hybridisation of already-developed international musical traditions – a phenomenon that he contrasted with the 'on-the-spot' invention of new musical forms, syntaxes, etc., which he referred to as 'parlour games.' He also drew attention to the exchange of ideas mediated by visits to electronic music studios by composers with different international and disciplinary backgrounds, and to the catalytic effect this had on the development and maturation of the electronic idiom in the late 1950s and early 60s. He sought to convey a sense of the interdisciplinary nature of electronic music by drawing parallels with the techniques of painting, sculpture and other musical traditions such as jazz in his earlier writings, and via the provision of several appendices in his International Electronic Music Catalog (Davies 1968), each of which focussed on the use of electronic music techniques in a different interdisciplinary area.

All the while, Davies was working toward the production of a comprehensive inventory of electronic music, beginning in earnest with his 'Discography,' (Davies 1964, 1966) which listed recordings available commercially on records or for hire on magnetic tape. This

endeavour reached its pinnacle with the publication of the Catalog in 1968, which Davies estimated (quite accurately, as far as anybody can tell) accounted for 'probably about 90% of <u>all</u> electronic music ever composed' (unpublished promotional materials dated 1967).

The *Catalog remains*, to this day, the most complete record of international electronic music activity up to the end of 1967. A broader aim of this research is to work towards an evaluation of the implications of this, historiographically speaking. To what extent, and with what consequences, do subsequent published histories of electronic music rely upon data provided in the Catalog, for instance? In what ways might Davies's model of electronic music as an international, interdisciplinary praxis be criticised, and what might be the implications of such criticism for the field of electroacoustic music studies?

Introduction

This paper concerns the electronic music research and documentation of Hugh Davies, from the period 1961 to 1968. At the end of that period Davies published a volume entitled *Répertoire International des Musiques Electroacoustiques/International Electronic Music Catalog* (Davies 1968), in which he listed every single piece of electronic music ever composed, anywhere in the world; 39 countries were represented. He presented the erstwhile separate disciplines of *musique concrète, elektronische Musik*, and tape music holistically, under the umbrella term 'electronic music.'¹ He also included several appendices that documented the use of electronic music techniques in other non-musical disciplines – painting, poetry, sculpture, computing, early optical techniques – and also other musical disciplines such as pop music and jazz.

One of the interesting aspects of Davies's work is that – even in the early 1960s, when the canonical view of electronic music history was only just beginning to take hold (see footnote 1 - it challenged the hegemony of the Paris, Cologne and New York schools as the 'main' pioneers of electronic music by drawing attention to the many other areas in which relevant activities took place in the 1950s and earlier. A list of countries represented in the *Catalog*, and the titles of the appendices relevant to this paper, is given in Table 1, below.

What I would like to suggest is that, with the *Catalog*, Davies presented electronic music – for the first time – as an apparently coherent, international, interdisciplinary praxis, whereas in the preceding literature the full extent of the international, interdisciplinary scope had only been represented at best partially, if at all. I'll attempt to show that by, first of all, describing some of the earlier literature that was available in the late 1950s and early '60s – the body of literature that Davies himself consulted in the course of his research, in other words – and then comparing this to how Davies's own research developed during that period, culminating in the publication of the *Catalog*. I also hope to convey some sense of what Davies's motivation was for representing electronic music in that way, which has to do with his belief

¹ Musique concrète, nominally pioneered by Pierre Schaeffer at the RTF studio in Paris, essentially involved the use of recorded 'real-world' sounds that were transformed using tape (or disc) techniques and formed into compositional structures following largely intuitive, perceptual criteria. Elektronische Musik, on the other hand, was pioneered by Stockhausen and others at the WDR studio in Cologne and used mainly synthesized sounds and compositional structures that were planned in advance using techniques derived from serialism. 'Tape music' was a term used primarily to refer to North American activities normally conceived of as being somewhat separate from European activities. This is a simplification, but captures something of the essence of what has subsequently become a canonical version of electronic music history.

in international and interdisciplinary exchange as mediators of musical innovation. I'll do that by referring to examples from Davies's own writings.

Countries	Appendices
Argentina, Australia, Austria, Belgium, Brazil, Canada, Chile, Columbia, Czechoslovakia, Denmark, Finland, France, German Democratic Republic, German Federal Republic, Greece, Hungary, Iceland, Israel, Italy, Japan, Mexico, Morocco, Netherlands, New Zealand, Norway, Philippines, Poland, Portugal, Rumania, South Africa, Spain, Sweden, Switzerland, Turkey, USSR, UK, USA, Venezuela, Yugoslavia	Jazz Painting Poetry Popular Music Precursors (includes disc techniques, mechanical instruments and drawn sound) Sculpture Synthesizers (also includes computers)

Table 1: Countries represented in Davies's *Catalog*, and titles of the appendices that are relevant to the discussion in this paper. These provide a convenient representation of the international and interdisciplinary scope of the *Catalog*

Davies's Key Sources

Table 2, below, lists some of the main sources that Davies himself identified as having been key to his research. Another key source named by Davies (Moles 1960) is not discussed in this paper, since it was not referenced in Davies's research until somewhat later (Davies 1966), whereas the other sources listed in the table are all mentioned in Davies's undergraduate thesis (Davies 1963a).

- 1) Pierre Schaeffer, À la Recherche d'une Musique Concrète (Paris: Éditions du Seuil, 1952)
- 2) Herbert Eimert & Karlheinz Stockhausen (eds.), *Electronic Music*, *Die Reihe* (Theodore Presser, 1955)
- 3) Hugh Le Caine, 'Electronic Music', *Proceedings of the IRE*, 44 (1956), pp. 457–78
- 4) Lejaren Hiller & Leonard Isaacson, *Experimental Music: Composition with an Electronic Computer* (Westport, Conn: Greenwood Press, 1959)
- 5) Fred Prieberg, Musica ex Machina: Über das Verhältnis von Musik und Technik (Berlin: Ullstein, 1960)
- 6) Frederick Judd, *Electronic Music and Musique Concrète* (London: Neville Spearman, 1961)
- 7) Radiodiffusion-Télévision Française, *Répertoire International des Musiques Expérimentales : Studios, Œuvres, Equipements, Bibliographie* (Paris: Service de la Recherche de la RTF, 1962)

Table 2: Published texts identified as key in Davies's research

The first two texts listed (Schaeffer 1952; Eimert and Stockhausen 1955) provide primary accounts of two of the original (if you like) 'disciplines' that fed the nascent idiom of electronic music – *musique concrète* and *elektronische Musik* – discussing their techniques and aesthetics. There is a certain amount of debate, in each of these texts, around the sometimes conflicting artistic ideals underlying these two school of thought, but no significant reference to anything outside that essentially French-versus-German debate.

Le Caine's text provides a mainly North American perspective on how (technically speaking) to produce complex timbres on the electronic equipment available at the time. Le Caine was

based in Ottawa, in Canada, where – alongside a day job – he designed and built electronic musical instruments. In this article Le Caine describes some of his own instruments, and other work carried out in the United States. He also describes instruments used at the *musique concrète* and *elektronische Musik* studios in Paris and Cologne, so that the international perspective is slightly wider than the US and Canada alone. There is also a short section on 'animated sound' – the production of sound by drawing wave shapes directly on to 35mm optical cinema film – and so, to some limited extent, interdisciplinarity beyond the immediate field of electronic and concrete music is alluded to (Le Caine 1956).

Hiller & Isaacson focus their discussion on new American developments in computer assisted composition, that is, not use of a computer for actual sound production, but to generate a musical score algorithmically, which is then performed by humans on acoustic musical instruments. They use the term 'computer music' to refer to this. Their book includes a chapter on other experimental music techniques that were being developed at the time, including *musique concrète, elektronische Musik*, and American experiments in so-called 'tape music' by John Cage and others. They also briefly mention the RAI studio in Milan. However, Hiller & Isaacson state that, although related, their own work has no direct precedent in any of these other activities. It is, if you like, yet another disciplinary branch of the electronic music phenomenon (Hiller and Isaacson 1959).

Fred Prieberg's Musica ex Machina: Über das Verhältnis von Musik und Technik ('on the relationship between music and technology') is probably the most diverse of the sources Davies consulted in terms of the breadth of its international and disciplinary coverage (Prieberg 1960). It is also the only substantial secondary source, that is, the only source whose main purpose is to summarise and interpret previous work in the field rather than focusing solely on recent developments in a particular disciplinary area. Prieberg situates electronic music in the broader context of the relationship between man and machine, and makes occasional references to relevant work in other disciplines, such as the cybernetic sound sculptures of Nicholas Schöffer. There is also a section entitled 'Influences of Jazz': reference to another *musical* discipline. There are separate sections on electronic music in Milan, Warsaw and Rome, Cologne, Darmstadt, Holland and Belgium, New York and Baden Baden, and also – areas far less frequency referred to in the literature of this period – Israel and Japan (though Israel and Japan have only two pages dedicated to them). In terms of Davies's own style of documentation, Prieberg's book appears to have been quite influential. Davies referred to it as 'the most useful book yet issued, [...] unfortunately not yet translated into English'(Davies 1964, 207). (It still never has been translated in to English, as far as I know.)

Fred Judd's book is aimed somewhat at the amateur electronics enthusiast, which could be regarded as yet another disciplinary fragment of the electronic music mosaic. It includes technical and practical information about circuit building and tape editing techniques, and only very briefly mentions some of the better-known composers using those techniques (Judd 1961).

The text entitled *Répertoire International des Musiques Expérimentales* (RIME) was a publication made by the research office of the French national radio and television company RTF (Office de Radiodiffusion-Télévision Française and Service de la recherche 1962). It was conceived as a directory of information on existing electronic music studios and their equipment and compositions, designed to facilitate the exchange of information between studios and practitioners worldwide. It represented 20 electronic music studios in 15 countries (Germany, Belgium, Canada, Denmark, US, Finland, France, Iceland, Italy, Japan, Norway,

Netherlands, Poland, Sweden and Switzerland). RIME was criticised by Davies for its incompleteness, and the somewhat haphazard way in which it was put together (Davies 1968, iii–iv). The choice of which studios to include in it, for example, was more or less arbitrary, based on those studios that the compilers already knew about and asked to participate. These was no attempt at comprehensivity, in other words. Thus, although RIME does demonstrate the beginnings of attempts around this time to think of electronic music as an international phenomenon, the picture it presents is patchy and incomplete in the extreme.

What we see in the literature Davies consulted, then, is a *disciplinary and geographic fragmentation: musique concrète* and *elektronische Musik* in Europe; instrument-building, computer music, and tape music in North America; and some passing reference – across the body of literature as a whole – to an even wider interdisciplinary field that includes – *inter alia* – cross-over with practical electronics and sculpture as well as other musical traditions such as jazz and popular music. What we *do not* see is any single publication that fully represents the international and interdisciplinary scope of electronic music as Davies saw it (although we do see some initial suggestions of travel in that general direction, particularly in Prieberg and in RIME).

Davies's Own Writings

Table 3, below, lists Davies's own writings that are referred to in this paper, which date from the period 1961 to 1968. What is evident in Davies's writings from this period is that, from the outset, there is an attempt (albeit rudimentary at first) to adopt a broader international perspective on electronic music. In Davies's first essay on the subject he drew attention to 'a large international group of composers' attached to the WDR studio in Cologne, and named those composers *specifically along with their nationalities* (Ligeti from Hungary; Bo Nilsson from Sweden; Kagel from Argentina; etc) (Davies 1961, 1). This might at first seem like a trivial – even naïve – essay writing strategy, but I suggest that it actually represents the beginnings of Davies's attempts to recognise electronic music as a far wider international phenomenon than had ever been fully represented in any single publication up to that point.

- 1) Hugh Davies, 'A Survey of Electronic Music', (London: Westminster School, unpublished essay, 1961)
- 2) Hugh Davies, 'New Directions in Music', *The New University*, 12 (1963), pp. 8–17
- 3) Hugh Davies, 'Electronic Music and Musique Concrète: An Historical Survey' (Oxford: Oxford University, unpublished undergraduate thesis, 1963)
- 4) Hugh Davies, 'A Discography of Electronic Music and Musique Concrète', *Recorded Sound: The Journal of the British Institute of Recorded Sound*, 14 (1964), pp. 205–24
- 5) Hugh Davies, 'A Discography of Electronic Music and Musique Concrète: Supplement', *Recorded Sound: The Journal of the British Institute of Recorded Sound*, 22–23 (1966), pp. 69–78
- 6) Hugh Davies, *Répertoire International Des Musiques Electroacoustiques / International Electronic Music Catalog* (Paris & Trumansburg, NY: Groupe de Recherches Musicales de l'ORTF & Independent Electronic Music Center, Inc., 1968)

Table 3: Davies's own published and unpublished writings referred to in this paper

What emerges in Davies's subsequent writings is a tendency to classify by nation, not as a mere organisational device, but as a way of representing electronic music as a truly global praxis – as a way of presenting 'the bigger picture' of a discourse that might otherwise be understood – looking at the other literature – as somewhat fragmented and parochial. (Parochial in the sense of activities taking place in isolated geographic and disciplinary enclaves.) As early as 1963 Davies identified the need to think of electronic music more holistically. He drew attention to its current fragmentation by pointing to the range of different terminologies in use in different parts of the world (*elektronische Musik* in Germany, *musique concrète* in France, 'tape music' in the United States, etc.), and suggested that a single 'umbrella term' was needed to refer collectively to the various disciplinary threads.

[T]he proliferation of different names for what is basically the same kind of music shows that a considerable number of composers in different countries are all trying to find a workable idiom. (Davies 1963b, 11)

WDR studio, Cologne, Germany			
Franco Evangelisti	Italy	>1956	
Mauricio Kagel	Argentina	>1956	
Gyorgi Ligeti	Hungary	>1956	
Bo Nilsson	Sweden	>1956	
Cornelius Cardew	England	>1956	
Philips Laboratory, Eindhoven, Holland			
Edgar Varèse	France	1957	
RTF/GRM studio, Paris, France			
Iannis Xenakis	Greece	1958	
RAI studio, Milan, Italy			
André Boucourechliev	Bulgaria		
Henri Pousseur	Belgium	1957	
John Cage	USA	1958	
Bengt Hambraeus	Sweden	1959	
André Zembuch	Switzerland	1959	
Columbia University studio, NY, USA			
Edgar Varèse	France	1960-1	
Michiko Toyama	Japan	1959	
Bülent Arel	Turkey	1960	
Halim El-Dabh	Egypt	1960	
Mario Davidovsky	Italy	1960	

Table 4. Some visits to electronic music studios by overseas composers mentioned by Davies in his undergraduate thesis

International Exchange as Catalyst

Davies's writing from this period conveys a vivid sense of the maturation of the electronic idiom, from naïve experimentation towards (if you like) a 'fully fledged' medium for artistic expression, and one of the most important drivers of this process, he believed, was *the*

exchange of ideas, or musical languages, across international boundaries. This brings me to what, I believe, was part of Davies's motivation for thinking of electronic music globally. Davies felt that if the time-honoured musical traditions of various different parts of the world could be hybridised, this would provide highly developed aesthetic avenues along with contemporary avant-garde music could develop. This was preferable, in Davies's view, to abandoning tradition altogether and simply inventing new musical languages 'on the spot,' as he criticised some composers of the European and American avant-garde of doing. For Davies, international exchange provided a deeper 'gene pool' of highly-developed local traditions that could be drawn upon.²

Visits to Electronic Music Studios by Composers from Overseas

It is Davies's belief in progress via internationalisation that provides, I suggest, a context in which we can interpret Davies's documentation – in his undergraduate thesis – of visits to electronic music studios by composers from overseas. I have tabulated some of these in Table 4, above. Davies specifically mentioned visits by several non-native composers to the WDR studio in Cologne post-1956, to the RAI (Milan) studio, and to the Columbia University studio in New York (Davies 1963a, 33, 40–3, 51, 69–70, etc.). Of the Milan studio he specifically pointed out that, with only one exception, all of the visiting composers to that studio up to 1960 were from outside Italy (Davies 1963a, 42).

Davies mentioned these international visits, I suggest, not only as a matter of interest, but as a way of suggesting that the international visits played a catalytic role in the maturation and aesthetic diversification of the electronic medium in its formative years. As one example of this, Davies pointed to the fusing of the erstwhile parochialised disciplines of *musique concrète* and *elektronische Musik* into a hybrid form that incorporated aspects of both. He mentioned Xenakis's *Diamorphoses*, composed at the Paris studio in 1958, as an example of this.

[*Diamorphoses* was] a good example of the new type of *musique concrète* that was now being produced. While still based on concrete sounds 'recorded through a microphone', the treatment of them renders them unrecognisable [resulting in] the kind of abstract sounds that were also coming to be used in [*elektronische Musik*]. (Davies 1963a, 22)

Davies noted a similar trend at the WDR studio in Cologne, where developments, he suggested, 'went from [one] extreme of the possibilities opened up by tape music towards a more general, centralised [path]'(Davies 1963a, 29). In my interpretation, Davies believed that this 'centralisation' was due, in no small part, to the diversification in aesthetics and techniques brought about by international exchange.

 $^{^{2}}$ As an aside, I find it very interesting that Stockhausen, towards the end of the period in which Hugh Davies was acting as his personal assistant (1964–6), produced his electronic music work *Telemusik*, which consists of recordings of various traditional world musics that have been transformed and, in a sense, hybridised using electronic techniques. That piece was composed in 1966, whereas Davies wrote about these sorts of ideas three years earlier, before he ever met or contacted Stockhausen. This makes me wonder whether the idea behind Stockhasuen's *Telemusik* might have originally come from a conversation with Davies. However, that's pure speculation as I have not yet found any conclusive evidence to confirm it.

Interdisciplinary Exchange as Catalyst

I believe there is also evidence to suggest that Davies viewed inter*disciplinary* exchange as a catalyst for the maturation and diversification of electronic music, although the extent to which this is systematically explored in his earlier writings is somewhat more limited than is the case with international exchange. If we accept that distinct musical domains such as popular music and jazz, *elektronische Musik* and *musique concrète* might be considered separate 'disciplines,' then we can see that Davies drew attention to inter*disciplinary* hybridisations as well as international ones. He discussed André Hodeir, for example, 'who is well-known in the field of jazz, perhaps better-known in the jazz world than in the avantgarde one'(Davies 1963a, 7). (Hodeir composed *Jazz et Jazz*, for piano and tape, at RTF studio in Paris in 1951–2.) He also made mention of the fact that Dieter Schönbach 'has composed film music [...] which combines elements of [*elektronische Musik*], *musique concrète* and jazz'(Davies 1963a, 58).

However, the most illustrative example concerns the visit of the Italian composer Mario Migliardi to the RAI studio in Milan. Davies noted (as mentioned previously) that '[u]ntil 1960, all the guest composers at Milan were from other countries, with the exception of Mario Migliardi, who' – Davies continues – 'in 1958 began experimenting with the synthesis of electronic music with popular music and jazz'(Davies 1963a, 44). Davies presented Migliardi, not as a visiting composer from a foreign *country*, but as a composer bringing influences from two 'foreign' *disciplines*: popular music and jazz. In other words, Davies framed the influence of outside disciplines in the same way that he framed the influence of overseas visitors: as the mediators of a richer idiom.

Conclusion : Interpreting Davies's Documentation and the Publications that Cite it

All of this provides a context for understanding Davies's *Catalog*, and what he was trying to do when he compiled it. The *Catalog* is organised by country, as an expression of Davies's belief in the importance of international exchange as a mediator of musical innovation. Similarly the appendices of the *Catalog* should, in my view, be interpreted as an attempt to advocate for the importance of exchange across disciplinary boundaries. (There are reasons for thinking this that can be gleaned from the ways in which Davies structured these appendices. Unfortunately the precise details of this are beyond the scope of this paper.)

Many subsequent publications reference the *Catalog*: an initial non-exhaustive survey has identified some 58 different texts (mainly books, book chapters and journal articles), published between 1968 and 2014, that have cited it. The *Catalog* is still – more or less – the only single source that provides a global picture of electronic music activity up to 1967. Another branch of my research is to evaluate the historiographic implications of this by looking at publications that reference the *Catalog*. This will be the focus of a future conference presentation and article. For now, I hope that I have provided some insight to Davies's motivations for representing electronic music as an international, interdisciplinary praxis. I also hope that I have shown that Davies's electronic music documentation – in particular his *International Electronic Music Catalog* – provided what was at the time, by quite a wide margin, the broadest international and interdisciplinary representation of the electronic medium available.

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