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Original Citation

d'Escrivan, Julio (2012) Live Cinema? A composer's thoughts about a musical new media approach to the performing of audiovisuals. Seminário Música Ciência Tecnologia (4). ISSN 1982-9604

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LIVE CINEMA? A COMPOSER'S THOUGHTS ABOUT A MUSICAL NEW MEDIA APPROACH TO THE PERFORMING OF AUDIOVISUALS

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Para Néstor, con quien me hubiera gustado tomarme una última birra.

"The current tools that are available to artists have always been part of the vocabulary of anybody who has anything worthwhile to say... so, I think you are obliged if you are a contemporary artist to use the tools of today, otherwise you've admittedly become a fossil "Peter Greenaway¹

Music for the moving image is probably something more important to composers of my generation than to any before us. I could argue that we, those who were teenagears between the late 60s and the late 70s, perhaps even the early 80s have a special relationship with audiovisual media. One determined by colour TV, the appearance of new and ²exciting film sound formats like 'sensurround' (used for Earthquake, 1974 and Battle Star Galactica 1978) or Dolby® AC-3 Digital Surround and in general, a filling out of the frequency spectrum by high quality reproduction systems allowing for powerful and rich bottom end (Which made film sound a truly visceral experience, this is, something you could actually feel in your gut!3) We are also the generation of the rock festival, the older among us went to Woodstock (the original one...) and to the Isle of Wight. Those of us younger watched the first film rock operas like the Who's Tommy. We went to the first stadium concerts, with light shows to begin with and later with large screen video in the early 80s. We were exposed to the first really large scale performances of music with visuals. Some of us studied classical music but the real fascination was rock, jazz or blues. You could study jazz in selected places but you could not really study rock or blues, or disco (nascent then) or any mass media popular musics as we know them today. They were being brewed in the 70s, as was the documentation of music through video and of course the emergence of the music videos in the early 80s, thanks to MTV, as a musical artefact. To my teachers in composition, film music was utilitarian music with not much interest in itself, derivative stuff. Something composers only occasionally did and not their best work. In the UK, both Vaughan Williams and Britten wrote music for Scott of the Antarctic and the General Post Office Series respectively, for instance; and, by the way, Stravinsky's Symphony in three movements started life as music for 'The song of Bernardette' although was never actually used for this film, he also said it to be inspired on newsreels of the war - this is documented somewhere in the Stravinsky-Craft books!. Other than a total-art-work genius (notice how I avoided writing gesamtkunstwerk) like the Argentinian-German Mauricio Kagel⁴ who in the late

^{1 &}quot;Peter Greenaway talks technology - YouTube." 2008. 10 Jun. 2012

<http://www.youtube.com/watch?v=AIIfXrEAcbo>

^{2 &}quot;Sensurround - Wikipedia, the free encyclopedia." 2005. 5 Jun. 2012 http://en.wikipedia.org/wiki/Sensurround>

³ Hope, Cat. "The Bottom End of Cinema." SOUND SCRIPTS: 74.

^{4 &}quot;Mauricio Kagel - Ludwig Van - 1969 - part 1 - YouTube." 2010. 5 Jun. 2012

http://www.youtube.com/watch?v=lggMyX3ysnA>

60s made his own films and music as self-contained works, the engagement of the 'major' classical music composers of the twentieth century with film was rather tangential. Still, for those of my generation, I dare say the audiovisual experience of live music with light and images and that of deafening film soundtracks marked our sensibility. It became, for us, what Ballet and Opera were to earlier generations of composers.

For me, it has been a humble livelihood (no great masterpieces but much in the way of TV commercials, branding and documentaries and some Latinamerican film and the privilege of a livelihood made from writing music), an ongoing artistic concern and a theme for much speculation and some academic writing. I have been fascinated not only by the possibility of making music for film but also of performing it to film and lately of creating my own footage and photography with musical uses in mind so I can better understand how visual creativity works. Because of this, I would like to investigate practices like *Live Cinema* or *VJing*. I have considered the field of *Expanded Cinema* but it seems more of a domain for the visual artist where music may simply be an added bonus. I am not sure either label (live cinema or VJing) really encompasses what I am looking for, but I think they are worth investigating as their explicit mission is to work with music.

I also think that other composers working with visuals will probably come across the same challenges as I: how to integrate the image, how to go beyond the traditional roles of music for film as described by Zofia Lissa⁵ or Michel Chion⁶; how do the technical limitations of software and their interface determine the music you will write; is there a better way to describe the compositional operations of music for moving images than through the analysis of motives and themes? In terms of this last question, note that for electroacoustic composers (academic practitioners of electronic music) the issues that arise from trying to map editing techniques and montage of images to electronic music composition have been examined before in papers like Diego Garro's interesting text 'A Glow on Pythagoras'⁷, from EMS 2005. There, Garro covers, among other things, the intricacies of mapping cuts from video to audio. But, what if we thought of music itself in terms of 'scenes' or 'shots'. In this way, its composition can be seen as a process of audio editing and compositing rather than the formal development of melody, harmony and rhythm. This results a visual approach to music creation which can possibly become a more inclusive way of understanding composition. Consider also that many composers of experimental electronic music and otherwise do not necessarily have traditional music training, that they tend to work in stylistic categories, sample libraries and loop construction sets. To me, all of the latter seem closer to film footage than harmonic or melodic analysis. Caveat emptor: when mentioning 'scenes' I must warn the musicologists that I do not intend them in the sense of the auditory scene analysis of Albert Bregman⁸, but rather of the pragmatic need of composers to group their moment to moment 'chunking' of music into mental image signifiers that are meaningful to them in the context of the conceptual and visual imagery that they are working with. This, of course, implies a semiotic approach as well as a pragmatic one⁹, where the composer freely associates music to visuals to other musics to justify the logic of their compositing and film-like transition editing (Musical match, jump and L cuts as well as fades and dissolves). What interests me is the web of associations and little narratives that result from the conceptual background of composition for the moving image and fuel its mechanics.

I am well aware that when analysing music, the key to compositional decisions can only

⁵ As discussed here: "P Tagg | Functions of Film Music (Zofia Lissa) plus miscellaneous ..." 2004. 10 Jun. P Tagg | Functions of Film Music (Zofia Lissa) plus miscellaneous... 2012

http://www.tagg.org/teaching/mmi/filmfunx.html

⁶ Chion, Michel. Audio-vision: sound on screen. Columbia Univ Pr, 1994.

⁷ Garro, Diego. "A glow on Pythagoras' curtain. A composer's perspective on Electroacoustic music with video."

⁸ Bregman, Albert S. Auditory scene analysis: The perceptual organization of sound. The MIT Press, 1994.

⁹ See Chattah, Juan Roque. "Semiotics, pragmatics, and metaphor in film music analysis." (2006) for an analytical take on film music composition.

be provided by the composers testimony yet, admittedly, the ambiguities that appear in the absence of their voice are also fertile grounds for musicological research (win-win!). A more cynical view is that composers lie when they speak of their music and honest accounts are impossible 10. Yet this is interesting also as it shows what the composer aspires to and provides useful context. As mentioned earlier, composition viewed through the techniques of film editing seems a way to gain insight into the creative process of composition for moving images, but more than anything, It allows for interesting explanations where fashionable scientific models of sonification or procedural mapping are, thankfully, insufficient to justify the music. In other words, there are more rigorous approaches involving computational models out there that would make for better papers in the sense that some academics prefer but my feeling is that composers should be more interested with the accidental and the unexplainable than with the clean and consistent world of algorithms. For this reason I am not attracted by sonification or any rule-based mapping approach to music for visuals.

In the following paragraphs I would like to consider what audiovisual performance is or can be for a composer, I would like to discuss *live cinema* without completely separating it from VJing because what has been described as live cinema seems an interesting avenue for exploration yet not substantially different from VJing. So, let us ask a few questions...

WHAT IS, THEN, AUDIOVISUAL PERFORMANCE?

Let us unpack this term a little bit. Audiovisual performance is a real time artistic delivery of still or moving images accompanied by music or sound (the latter with a musical intent or merely diegetic). Yet in audiovisual performance very different results are obtained depending of which is the leading medium. If visuals lead, as in silent film, the performance results in a playback of film accompanied by music serving the narrative of the film. If music leads, as in most DJ/VJ practice, the visuals can range anywhere between the merely decorative and the enhancement of the music through visual metaphor. But, can we present both practices as parallel yet interdependent discourses, and what do we call that? In my opinion, here we should consider thinking about about an indivisible audiovisual object. Nicholas Cook has discussed the issues surrounding music vis á vis multimedia in his Analysing Musical Multimedia¹¹ where he writes about how music can conform, complement or contrast with visual media (Cook, 1997, p. 99). More recently, Prof. Cook has been interested in the work of the British VJ trio. Eclectic Method¹². Some of the work of this audiovisual trio, aspires to a modern view of audiovisual elements as self contained objects¹³, which I think should be called audiovisual objects, in a nod to Schaeffer's sound object concept. Audiovisual objects can be seen in works like Beyonce VS Lynyrd Skynrd which Prof. Cook has referred to in recent presentations 14. In

¹⁰ I subscribe to this view but can only try my own explanations for compositional logic when it comes to my work. Like most composers, I may not be truly aware of what I really mean! -or to put it more gently, the collection of meaning is outside our power as composers, once the music is out there its semantic resonance is uncontrollable as it resides in the listeners.

¹¹ Cook, Nicholas. Analysing musical multimedia. Oxford, 1998.

^{12 &}quot;Eclectic Method." 2002. 9 Jun. 2012 http://www.eclecticmethod.net/

^{13 &}quot;Eclectic Method - Beyonce VS Lynyrd Skynrd - YouTube." 2009. 9 Jun. 2012 http://www.youtube.com/watch?v=tinOCcOzLf4

^{14 &}quot;Nick Cook talk on Beyond reference: Eclectic Method's music for the ..." 2011. 10 Jun. 2012 http://jussiparikka.net/2010/03/31/nick-cook-talk-on-beyond-reference-eclectic-methods-music-for-the-eyes/> note Cook's own abstract for this paper: "Beyond reference: Eclectic Method's music for the eyes: Screen media genres from Fantasia (1940) to the music video of half a century later extended the boundaries of music by bringing moving images within the purview of musical organisation: the visuals of rap videos, for example, are in essence just another set of musical parameters, bringing their own connotations into play within the semantic mix in precisely the same way as do more traditional musical parameters. But in the last two decades digital technology has taken such musicalisation of the visible to a new level, with the development of integrated software tools for the editing and manipulation of sounds and images. In this paper

this rendition of *Sweet Home Alabama* mashed up with *Single Ladies* and in others like it (see the work of Addictive TV¹⁵ or Light Surgeons¹⁶), the trio use video clips as compositional units, true audiovisual objects where image and sound are not separated. Through techniques of editing and compositing/blending both are combined to create a unified whole. Unlike more traditional ways of combining music/sound and visuals, where either media is edited as appropriate, Eclectic Method's audiovisual objects (in works like this although not always) are not separated into their constituent media. Their synchrony or, to quote Chion, *synchresis* is maintained¹⁷ throughout.

IS IT A KIND OF MUSIC OR A KIND OF CINEMA?

Attaching labels to practices is, of course, an imprecise task. A label seeks to freeze the features of something so it can be catalogued. But labels carry heavy baggage, they bring strands of critical thinking with them. The same artistic practice, differently labelled, breaks down the light of critique into different colour spectrums. For this reason it is interesting to shine the following tags against the practice of a musician's audiovisual performance.

Is audiovisual performance a form of expanded cinema¹⁸ or intermedia?

In his book, *Expanded Cinema* (1970), Gene Youngblood is perhaps the first person to describe and theorise video art, computer art and how different media working together can generate an 'intermedial' experience. Although it can certainly be seen from this perspective, describing musical audiovisual performance as expanded cinema may be far too generic a label to encompass the musical practice. Having said that, works like Lis Rhodes' *Light Music* (1975)¹⁹, brought back to audiences at the Tate Modern in London only a few years ago, are strongly on the musical side of expanded cinema although it is not a performance but rather a projection. In this piece Rhodes creates the music from drawings read by the optical sensor of the projector. This kind of work owes a lot to Oskar Fischinger but also to the work of Norman McLaren in the 1930s. All of these cast sound in a principal role, but none are intended for live performance.

Is it a form of multimedia?

Apart from the historical use of the term since the 1960s, the term multimedia reminds me, and possibly many others, of CD Roms in the 1990s. It describe the kinds of database art²⁰ that can be created by combining audio, images, text, interactive elements and video (which

- 15 "Addictive TV." 2003. 9 Jun. 2012 http://www.addictive.tv/
- 16 "THE LIGHT SURGEONS -." 2003. 9 Jun. 2012 http://www.lightsurgeons.com/
- 17 Chion, Michel. Audio-vision: sound on screen. Columbia Univ Pr, 1994.
- 18 Youngblood, Gene, and R Buckminister Fuller. Expanded cinema. New York: Dutton, 1970.
- 19 "Tate Live: Expanded Cinema | Tate." 2012. 10 Jun. 2012
 - http://www.tate.org.uk/context-comment/video/tate-live-expanded-cinema

I illustrate these developments through the work of the UK-born but US-based remix trio <u>Eclectic Method</u>, focussing in particular on the interaction between their multimedia compositional procedures and the complex chains of reference that result, in particular, from their film mashups."

today is best exemplified by HTML5 app-like websites and through smartphone apps). In this sense audiovisual performance makes use of multimedia but goes further because it adds an artistic performance element, which a slide-show presentation does not have – in an older sense of the term multimedia. An interesting case of corporate multimedia as art is David Byrne's use of powerpoint to create art installations, as described by American National Public Radio (NPR): "musician uses powerpoint program for ironic avant-garde art" but again, it is not a performative use of multimedia.

Is audiovisual performance video art?

In thinking of video art we may be getting closer as audio and visuals may be treated here in a balanced way, yet the most common meaning of the term 'video art' implies a fixed work, a plastic form.

Is audiovisual performance VJing?

In so far as the VJ is a sort of real time curator of visuals that can enhance the enjoyment of live music, they are audiovisual performers. However, their work falls short of the promise of a true audiovisual language in the sense of the audiovisual object as a unified compositional/performance unit. Given that VJs usually work 'after the fact' of music creation, the more general experience of their work seems to be as decorative rhythmic visuals without deeper connections at a compositional level as they often do not participate in it.

Is audiovisual performance live cinema?

To me, this is the most interesting term so far. The use of the term *live cinema* seems to have peaked in the UK during the 2000s but judging from recent activity on Vimeo and YouTube reporting from the May/June 2012 Live Performers meeting in Rome, LPM²², many young international practitioners are still willing to call their audiovisual performance 'Live Cinema'. In fact, LPM classifies work for submission to the festival into eight trends that they have identified of which Live Cinema is the first category they name: "Live Cinema': works performed exclusively live, capable of demonstrating a narrative and experimental approach; projects in continual tension between perceptive experience and performative act."²³

Audiovisual performance is a cinematic experience, in the sense discussed by many artist/authors like Boris Debackere and Arie Altena²⁴, but beyond the cinematic we have to recognise also the new media properties of contemporary, computer aided audiovisual performance. As much as audiovisual performing may try to recreate cinematic narratives, we already have traditional film for that so its success in this respect will probably be limited (or expanded?) to poetic evocation and, sorry for the jargon, *polysemia*. I would say that it is Manovich's *database logic*²⁵ which gives audiovisual performance its uniqueness, as the artist recombines and mashes-up their collections of audiovisual snippets, images, text and music in

²⁰ Discussing on the database logic. Manovich, 2002, p.218

^{21 &}quot;David Byrne's PowerPoint Art: NPR." 2004. 10 Jun. 2012 http://www.npr.org/templates/story/story.php?storyId=1595838

^{22 &}quot;LPM 2012 Live Performers Meeting." 2012. 9 Jun. 2012 http://2012.liveperformersmeeting.net/

²³ ibid

^{24 &}quot;SONIC ACTS XIII » The Cinematic Experience – 2008." 2010. 9 Jun. 2012 http://2010.sonicacts.com/shop/the-cinematic-experience-2008/>

an attempt to create a coherent performance and, of course, some possible narratives. At this point I would also make clear that the difference between VJing and Live Cinema seems to be purely related to artistic intention and to the need of practitioners to establish the subtle differences that make them feel comfortably tribal²⁶.

LIVE CINEMA

The use of the word 'cinema' in this context is problematic in at least one sense. In that cinema is traditionally a plastic art. Once the editing of film footage has been done, the result is a fixed, plastic, artefact: moving image playback. Live cinema, on the other hand, is not plastic art but performance. A good high profile example of what can be understood as live cinema is British director Peter Greenaway's work with custom VJ software using material from his Tulse Luper project of 2003. With a vast collection of film sources created for the project, Greenaway is able to perform live recombinations of his image sequences:

On music by DJ Serge Dodwell (aka Radar), 'VJ' Greenaway used for his set a unique VJ system consisting of a large plasma screen with touchscreen, specially developed by technical partner BeamSystems. Utilizing this system, Greenaway projected the 92 Tulse Luper stories on the 12 screens of Club 11 in a multi-screen way and mixed the images 'live' [...] blending his avantgarde cinematographic imagery (taken from the Tulse Luper Suitcases movie) with the heavy movie score remix by DJ Radar. Mastering the giant touch screen the newborn 'realtime image conductor' Greenaway provided a totally new experience to the audience: Live Cinema was born.

The idea that Live Cinema was born there, is of course pure hype, in 2003 other, younger, audiovisual artists were doing similar work also called 'live cinema' with a fraction of the resources. H. C. Gilje (Norway), Kurt Ralske (USA) and Lukasz Lysakowski (Poland) were performing as a real-time video improvisation ensemble called 242.pilots. In a piece widely available on the internet, Live in Bruxelles²⁷, to music by Justin Bennett, we find that the music and images are only tenuously integrated, perhaps by a loose similarity of mood. For the 242.pilots the music served as a fixed blueprint of structure to follow while performing their video improvisations. This is a telling detail. As in the case of Greenaway, the kind of audiovisual-object discourse we find in Sweet Home Alabama vs. Single Ladies, mentioned earlier, is not really there. In Greenaway's presentations, as can be asserted from videos of the events found online, there is some use of the original audio of the source film clips but just the fact that a DJ prepared remix of the score is used as music attests to a concession to club culture.

In an attempt to defining *Live Cinema* through a documentary film statement in 2010, VJ Toby Harris tells us:

there's Hollywood cinema [...] which is like beamed into your... almost brainwashing you and then there is this, a... live jazz or storytellers around the campfire, you know, when we were cavemen, but they're telling a story... but they're not, they're telling different stories every time... not because there isn't a definitive story but because it's more interesting that they just have a sea of memories, and every story they kinda navigate through the sea making different associations, drawing different things in, in different contexts and... so we can do the same with digital media as performers (Harris 2010)

It seems to me that this view of digital media performance is very close to musical thinking. Liberated from the need to narrate precise sequences, the associations of visual and musical scenes and shots is free to occur in a subjective manner. This view is shared with composer and digital artist Jan Schacher who tells us that in Live Cinema "we are witnessing the development of an artistic practice that uses technology to explore a symbolic and at times

²⁵ Manovich, ibid.

²⁶ For a good introduction to the subject of audiovisual performance I would recommend Amy Alexander and Nick Collins' Live Audiovisuals" in The Cambridge Companion to Electronic Music, Collins and d'Escriván (Eds.)

^{27 &}quot;242.pilots live in bruxelles (2002) on Vimeo." 2009. 10 Jun. 2012 http://vimeo.com/3333080

non-descriptive intermedia/te space" (Schacher, 2008, p.148).

A NEW MEDIA APPROACH TO MUSIC

In addition and possibly as a consequence of my interest in *Live Cinema*, I have begun to observe my own musical practice and to understand that of other composers **from the point of view of audio montage as an equivalent to digital video compositing and editing**. I believe this to be especially useful as most practitioners creating film music and performing live audiovisuals (with the exception of authentic recreations of silent film music accompaniment) today work with computers. Composers are then well versed in editing techniques: cutting, pasting, blending and fading. Before computers, you could perhaps think of your music in these terms but with computer music sequencing music becomes true new media in the sense that it comfortably meets the five principles laid out by Lev Manovich in his *The Language of New Media*: numerically representable, modular, automatable, variable and transcodable²⁸ (Manovich 2002).

Granted, notated music can be thought in terms of the principles of new media. After all pitch-classes are a form of numerical representation; series of tones or even textures and ostinati can function as modules; performers can improvise beyond the notated score making the generation of new musical material automatic or independent of the composer; thematic elements can be transposed, time modulated and re-cast for variability; finally, any score can be arranged for different instruments. In this sense notated music is proto-new media, and I could speculate that this may explain why there is so much convergence between music and computer programming (after all, a score is like software instructions to create music with an instrument). But beyond notated music, we now have recorded music able to be digitised, chunked, looped, modulated and re-formatted. Little of this is easily or even possibly done without computers. By analogy with Manovich examining Vertov's Man with a Camera²⁹ in his introduction to the Language of New Media, beyond the indexical nature of sounds -water indicates water, a gunshot indicates a gun- the constant manipulation of the database (loops or samples in the case of popular contemporary music assemblage) results in a succession of meaningful events that can build a coherent work of sound in real-time. Couple this with similar databases of film, as in Greenaway's Tulse Luper archive and you have the elements necessary to create Live Cinema. The challenge of Live Cinema is the same as for all new media creators, the traversing of the database to produce narrative, the construction of meaning through a succession of media objects with their associated metadata, sometimes explicit, as in an interactive installation where a touchscreen allows the user to dig deeper, and at others implicit, when the media object is a commonplace image or an agreed symbol of something, say the tank man at Tiananmen square in 1989.

Incidentally, as a musical database element, the loop is a unit of narrative structure in digital music, and today's music sequencers incorporate the loop database as part of the composer's workflow. Loops and samples indicate a new post industrial approach to the production of mass music; premoulded yet customisable musical objects are offered to the composer or performer for the construction of his piece³⁰. This is also the case for VJ software, where video loops are sold in thematic bundles ready to be remixed in live performance.

There is probably an interesting avenue for exploration in the analysis of film/video music as film montage, one that can then be correlated to the actual film montage as a structural ripple. I hope to dig deeper into this in the near future.

²⁸ Manovich, Lev. The language of new media. The MIT press, 2002.

²⁹ Manovich, ibid.

³⁰ In this sense it is also interesting to look at the vinyl DJ as a preindustrial operator, heralding the mass accessibility to music and sound production.

To conclude...

This new practice I have been describing reminds me of the early musical approaches to silent film, from 1910 onwards, where scores of typical dramatic situations where made into libraries (databases!) of mood music that could be recombined at will by silent film music performers. Indeed, when explaining Live Cinema, some authors³¹ refer to the term as another name for silent film since the music was performed live. Ironically, it is practitioners performing the images and not the sound in real time who have made the term popular today. I believe there is a more interesting type of Live Cinema, hinted at by Eclectic Method, Addictive TV and the like. It is one where the audiovisual object can be developed as an indivisible unit and redefined with different synchresis values. Coldcut's Timber video of 1997 is a good canonical example. I don't believe that the potential of this approach to the audiovisual object has been truly explored. The work of Greenaway and 242 pilots was a beginning which has spawned interest that is not only still alive today but still in the process of being developed and finding a stable place within the repertoire of creative possibilities. We now have even better and faster software to manipulate audio and video together (Graphic programming languages like MaxMSP-Jitter, Isadora, PD, VJ software packages like Resolume or Modul8). Video is now easily streamable from the internet in real time as the change of TV has moved from sets to laptops. As audio and video become easier to handle in high resolution by general purpose computers, perhaps the stage is set for cinema to evolve beyond the picture-house. Without going as far as Greenaway in stating that cinema is dead with the advent of what is essentially live cinema practice³², I feel the we are only at the start of an exciting new practice with the audiovisual object at its root. One where composers can play with images as they do with music.

BIBLIOGRAPHY

Alexander, Amy y Collins, Nick, 2007. 'Live Audiovisuals' en *Cambridge Companion to Electronic Music*, Collins, N. y d'Escriván, J. eds. Cambridge University Press

Bregman, Albert S. Auditory scene analysis: The perceptual organization of sound. The MIT Press, 1994.

Chattah, Juan Roque. "Semiotics, pragmatics, and metaphor in film music analysis." (2006).

Chion, Michel, 1990. Audiovision. New York: Columbia University Press

Debackere, Boris and Debackere, Brecht, 2006. 'Cinema in the age of instant creation' in *Transmedia Text Series 05*, Asselberghs, Herman (ed.). Brussels: Transmedia

Hope, Cat. "The Bottom End of Cinema." SOUND SCRIPTS: 74.

Harris, Toby (a.k.a. toby*spark), 2009. Live Cinema Documentary. Accessed on VIMEO: http://vimeo.com/9065736

Griffiths, Alison, 2003. 'Shivers down your spine': panoramas and the origins of the cinematic reenactment' Screen (2003) 44(1): 1-37 doi:10.1093/screen/44.1.1

Makela, Mia 2008. 'The Practice of Live Cinema' in Media Space Journal, Issue 1

Ralske, Kurt. On the performance techniques of 242.pilots accessed a http://retnull.com/242pilots/code/technique.html in April 2011.

Schacher, Jan, 2008. 'Live audiovisual performance as a cinematic practice' in *The Cinematic Experience*Debackere, B. and Altena, A. (eds.). Amsterdam: Sonic Acts Press

^{31 (}Debackere, 2006) and (Makela, 2008).

^{32 &}quot;Peter Greenaway: "New Possibilities: Cinema is Dead ... - YouTube." 2010. 10 Jun. 2012 http://www.youtube.com/watch?v=u6yC41ZxqYs