

Towards a definition of the Performing Audiovisualist

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Abstract

The evolution of the laptop computer as a musical instrument in the 1990s provided a tool for empowering the solo musician and divergent approaches to the application of this technology in performance remain consistently debated. The increasing ubiquity of digital media combined with the power of current generation notebook technology has provided the perfect platform to realise integrated audio-visual toolsets that respond to musical controllers and provide mixed-media results. Despite emerging practitioners increasingly availing themselves to the musical affordances of this technology, theoretical discussion in the field ignores the various approaches a solo musician might take in developing integrated media works for performance. In an increasingly crowded niche there is a clear compulsion to consider expanded modes of performance, yet lacking any formal framework these integrations can easily alienate an audience, distract from performance and lead to criticisms of novelty for novelty's sake.

As an emerging area of practice where the interoperability between sound, image, text and gesture is dissolved, this audio-visual form of expression requires a formalised typology that extends beyond novelty and technological determinism; beyond the restrictions of a traditional musical performance and the confines of disciplinary boundaries towards an integrity of context, form and function suitable to a hybrid medium; to a new audiovisual practice that emerges from histories of live performance and media production. This paper will outline a framework for audiovisual creation by applying the musical theory of Morphopoeisis, originally devised by Panayiotis Kokoras, to a variety of hybrid media practices and by outlining a number of performative approaches towards a definition of the performing audiovisualist.

Introduction

In September 2008 the following discussion took place on the Audiomulch mailing list:

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Korhan Erel:

...the audience in Turkey is fairly new to experimental, avant-garde music and there is a danger of alienating them when you give them nothing to relate to except for the music. Using video or working with VJs provide a practical solution to this, but I would prefer either to prepare the video myself or design the whole performance from scratch with the VJ.

John Smith:

By using visuals it's like admitting that music just isn't enough to sustain the audiences interest. Working with a visual artist for a specific concept is always a good idea but again I feel that music loses its unique power and the opportunity to live the excitement of "pure" sound. A friend who doesn't use visuals told me once, in sarcasm: "I can watch TV at home!" (yahoo, 2008)

This dialogue illuminates the theoretical and practical interplay between sound and image in the field of digital media performance. Disagreements over instrumental and acousmatic approaches to digital media performance and the "novelty" inclusion of hybrid media certainly inform current practice, highlighting a need to examine the effect that the growing integration of hardware, software and cultural practice is having on the performer.

In 'Haunted Weather' David Toop describes the dream of "creating an overwhelming synaesthesia" as being subservient to the "false assumptions or deep seated needs [to see a clear] discernible link" between visible actions and sound production that creates a "warm glow of communication" with the audience" [36,14]. Musicians and sound artists have historically deployed any number of tools to define, communicate and distribute their creativity, that at times directly challenge rather than reinforce the preconceptions of an audience. Steve Dixon states in the preface to *Digital Performance*, "...music was one of the first artistic fields to experiment significantly with and embrace computer technologies, and in terms of both creative production and commercial (as well as illegal) distribution, music has arguably been more radically revolutionised by the 'digital revolution' than the other performance arts" (Dixon, 2007, p. x). Instead of relying on traditional models of music performance the new breed of performer is exploring the unique possibilities that a partnership with digital technologies can offer to composers and performers.

The Performing Audiovisualist, strives to achieve an overwhelming synaesthesia, through the integration of a variety of expressive forms in performance. This variety is evident in contemporary practices. Both the d.v.d. trio and the duo of Sabine Ercklentz and Andrea Neumann received "Honorary Mention" awards at the *Prix Ars Electronica Cyber Arts 2008* festival [24]. Both integrate audiovisual components to suit completely divergent performative needs. At the same festival the Golden Nica was awarded to the *Reactable* [19]; an instrument/interface that adopts an extensible visual music approach to live

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performance that has been used in concert by high profile artists like Bjork. The synthesis of audio and vision practices is also evident in cultural commentary. Blogs like Create Digital Motion / Music output a constant source of commentary on digital hybrids, soft/hard hacks and performative revelations highlighting the growing integration of sound and image as a performance practice that extends the notion of the musician and musicianship in the twenty-first century.

These integrative trends have been noticed in scattered academic reflections at least since Marshall McLuhan's publications in the 1960s [28] and have been acculturated by the isomorphism of digital data. As a keen observer of these trends Stephen Holtzman states, "an expression is an expression of its time [and also] an expression of the idiomatic nature of the medium by which it is realized" [17,239]. When the computer considers all media as numeric data, and software exists that makes little to no distinction between media types, the implication seems to be that interdisciplinary practice is the natural outcome of computational arts.

As an emerging area of practice where the interoperability between sound, image, text and gesture is dissolved, this emergent new form of expression requires a framework that extends beyond novelty and technological determinism; beyond the restrictions of an instrument/performer/audience approach and the confines of disciplinary boundaries towards an integration of senses and an integrity of context, form and function suitable to a hybrid medium; to a new audiovisual practice that emerges from histories of musical performance and media production.

A Framework for Audiovisual Creation

Emerging approaches to audiovisual performance may draw on the richness of established musical performance practices but they distinctly move in many directions away from what might be considered the traditional instrumentalist approach. In defining the foundation of what audiovisual performance is, and how it differs from a more traditional musical performance, it is worth identifying the deeply rooted performative approaches that resonate with this emerging form. To facilitate this approach we will draw on the theory of Morphopoiesis (Kokoras, 2005) a model that was originally designed to assist the perception of musical structure in electroacoustic works. The model lends itself particularly well to a generative, as well as its intended analytical, function.

Morphopoiesis describes compositions as being based on atomic sound transformations that have a characteristic spectromorphological trajectory. These sound objects are animated or set in motion through musical space until the trajectories are integrated into a sonic fabric. As a framework for audiovisual creation this model can easily include audio and visual elements; events that we call *projected* objects, which become *animated* objects as they are transformed over time. These animated objects can have varyingly independent or coordinated *trajectories* in audiovisual space that eventually come together as *narrative* objects around a common theme or purpose with an ambition to

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achieve aesthetic coherence and affect.

Projected Objects

We are in a large room and the few penetrating shafts of light outline a drifting haze of fog. Conversation is hushed and reverent; whispered chatter promises no spoilers and that all will soon become clear. There is a sudden loud burst of frequency that you feel in your eyes and gut; the haze is punctured with many shafts of light that outline a phantasmal architecture. The clusters of sound draw breath and evolve as we turn from our haphazard unfocused positions to gaze at the walls; here the sounds becomes shapes which twist and skew with frequency shift and rhythmic disturbance. We are captive. Enraptured by a confusion of the senses. Is it the sound that is constructing the ghostly illusion or are the phantoms giving voice to this spectral symphony? We are watching a performance by Robin Fox in the Brisbane Institute of Modern Art.

Among historical examinations of audiovisual performance the legacy of the Magic Lantern is a recurrent theme. While the mechanics of the device were designed to project images that tell stories; in practice their application played on superstitions of the time by projecting corpses, ghosts and supernatural apparitions to shock the audience. Illusionists like Johann Georg Schröpfer experimented with projecting onto mirrors and smoke to create disembodied figures that appeared to float in the air above the audience. He also used hidden hollow tubes to distort vocal utterances to further project the illusion that these phantasms were more than just clever tricks [14, 142 – 145].

The floating phantasms of the Magic Lantern would rise again in expanded cinema experiments taking place from the late 1960s. A key work from this period is "Line Describing a Cone" (1973) by Anthony McCall. A 2005 screening presented by Other Film in Brisbane took place in the garage of a local art gallery; an appropriate space for a work that does not require a screen, only darkness and space. A single beam of light extends across the space to create a dot that slowly forms a circle. As the circle is projected, the light extending from the projector creates a cone which, with the help of a dusty room or a smoke machine, evolves to a hologram that the audience is compelled to interact with and explore.

The audiovisual work of Robin Fox [cite?] has progressed from initial work developing tones that would produce complex replicable mandalas on an oscilloscope. Fox has since relocated the visualisation to lasers which extend the interaction of sound and image visibly and physically into the audience. As a solo artist he generates these results from a relatively compact setup (the major components being notebook, mixer and laser) and has the portability required to travel the world like the archetypal showmen of the Magic Lantern period. Though his work comes from an experimental music background it has been licensed by the likes of The Chemical Brothers [cite] and there are signs that the VJ/Dance scene is starting to catch up. In 2007, French visual architects Exyzt produced an astonishing projection mapping for the Transmusicales Festival set of house producer,

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Etienne De Crecy with a projector, well-defined spatial coordinates and some simple software enabling them to manipulate vertices to provide a spatial illusion [30]. De Crecy DJ's in the centre of the scaffolding which appears to twist and morph like a hybrid of M.C. Escher and a Rubix Cube.

In the examples above the key similarity is the projection of one or more abstract, figurative or cultural objects into space and the solidification of an illusion generated in partnership with the audience in that space. Despite the consumer availability of surround-sound technology, Adam Donovan is one of the few artists working on the focused projection of sound objects. His parametric acoustic arrays are lenses that focus a highly directional, 3° beam of sound across a space of approximately 200 metres. [5, 6] While Donovan's research is generated under the auspices of the Defence Science and Technology Organisation, this technique has potential for the performing audiovisualist in further integration of sound and image in live delivery.

Animated Objects

A ventriloquist act involves the animation of an inanimate object through the projection of voice and motion. The ventriloquist puppet is also representative of a partnership with technology [2] where technologies are a "double" which Steve Dixon theorises as existing either as reflecting, schizophrenic, transcendent or replacing that of another human performer in modern dance production [10,28]. The Swedish electronic group The Knife [cite live work] literalise the concept of a technology "double" through use of a projected digital avatar in concert that sings both solo and backing parts, as well as appearing to manipulate an imaginary machine. The notion that these puppets develop a "life of their own" is a horror explored in literature and a dream explored in code as autonomous artificial life entities determine an engagement with the real and virtual world via algorithms.

Deeply ubiquitous automated processes spawn beneath our feet, behind any program we use and in the infrastructure that runs both our virtual and real cities. A transparent use of this automata can be seen in programmable environments like Max/MSP [cite] and Impromptu (Sorensen 2005) that allow for autonomous processes to occur and respond to the musical feedback generated between user and whichever process is the focus of their interaction. Animata, by contrast, is a program that explores the puppet metaphor more directly, allowing the generation of 2D "puppets" from bitmaps that can be then made to move and interact based on sonic input [29]. Dave Griffiths creates multiple automated avatars in live coding performances with his software Al Jazari [16]. In this environment he literally animates the computational processes; but the animated object need not always be so literally set in motion.

Oskar Fischinger's pioneering animation of simple shapes and colours moving with sympathy to music is a realisation of the links between colour, shape, sound and mood that Wassily Kandinsky proposed in "Concerning the spiritual in art". [20] Musical

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sounds are associated with visual symbols for the audience, producing a meaning that is neither exclusive to sight or sound but to what Michel Chion calls "transensoriality" [6,136]. Fischinger and New Zealander, Len Lye not only pioneered Visual Music but repurposed the Wagnerian convention of the leitmotif in the application of sound to (abstract or geometric) objects creating higher-level meaning and personality. This idea would resonate throughout 20th century art, animation and even multimedia with the introduction of graphic user interfaces and the icon (earcon).

Approaches to animating objects can link together audio and visual elements, either directly as sonification or visualisation or through more subtle or indirect mappings. Systems like Metasynth [cite] generate sound from image in linkages that lead back to the colour organ inventions of the 1800s and synaesthetic composition experiments by the likes of Schoenberg and Scriabin. Where the basic premise of a colour organ is the projection of colour in relation to note and keypress, the aforementioned programs connect sound and image through the science of spectral analysis; converting colour within the spectrum to a relative frequency. The Processing software [cite], among its many pragmatic uses, allows the user to construct live painting interfaces where gestural control, close to traditional action painters like Jackson Pollack, can be achieved with instantaneous image/sound results using sound and music library extensions such as Minim and SoundCipher (Brown 2009). The ability to create complex visuals has encouraged groups like the Anti-VJ collective to design their own complex systems for interactive painting [32]. The virtualisation of these forms through digital technology allows for endless prototyping and adjustment in order that the animation of the inanimate through sensory integration can be controlled by process and/or gesture in a manner best suited to context and the stimulation of meaning for the audience.

Narrative Objects

Experiments with integrating music and song with other forms of media to expand the construction of narrative has a strong history, from the leitmotifs and arias that outline the libretto in an opera to the recontextualisation of Power Point software by David Byrne [cite]. The Residents were early adopters of CD ROM technology and used it not merely as an extensible song format but in the creation of artistic experiences where interaction is the key to unraveling layers of meaning. A DVD reissue of *The Commercial Album* [cite] features a labyrinthine 3D gallery that the viewer navigates with the DVD remote in order to access the variety of videos produced by the band and their fans.

The invention of the remote control and the interactivity it affords is, according to Peter Greenaway, the moment that cinema died [15]. His argument for the radicalisation of filmic art is in part due to his disagreement with a form of cinema that is reliant on text over image; particularly its fundamental basis in treatments, storyboards and scripted narrative [15]. Lev Manovich notes that Greenaway's work 'The Falls' demonstrates an early rejection of traditional narrative form [26,238] in favour of a case study documentation of 92 lives affected by an imaginary event. With the assistance of the No-

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TV collective [cite], Greenaway has converted his *Tulse Luper* project [cite] into a form of performance cinema by adopting the performative style of the VJ and utilising a system modelled on VJ performance software like *Resolume* [cite]. Working alongside live electronic musicians, originally static forms are opened to the possibility of live remixing and recontextualisation, where the audience is taken on a journey unique to the performance.

Brisbane interdisciplinary artist *Chloe Cogle* [cite?] uses recontextualisation of sound and image to frame her performances; combining atmospheric mechanical sounds by *Luke Walsh* with archival slide projection and a faux 'authorial' narration that bends truth just enough to maintain audience intrigue. The performative reconfiguring of discarded objects is also at the centre of *The Labyrinth Project* [cite]; a growing work of 'database cinema' that evolves from the rescue of archival footage and interacted with via a tagging system allowing artists and audience to define their own narrative structure. One of the artists involved in this project, *Marsha Kinder* disagrees with *Manovich's* assertion that database cinema is anti-narrative [26,233] arguing that databases and narratives are "compatible structures whose combination is crucial to the creative expansion of new media" [21,348] She refers in particular to the "dual processes of selection and combination" that are the foundation of all stories, songs, and narrative forms regardless of their linearity or chance construction. By appropriately tagging audio/visual data, the resulting construction can still be made to follow a developmental path whilst also "challenging the notion of master narratives whose selections are traditionally made to seem natural or inevitable" [21,349].

One of the preeminent cinematic influences on modern audiovisual performance is the structuralist aesthetic pioneered by *Dziga Vertov* in his "*Man With A Movie Camera*" [cite]. This multilayer film exhibits strong rhythmic approaches to editing and juxtaposition that also inform *Godfrey Reggio's* "*Qatsi*" trilogy [cite]; which express a battle between humans and technology that resonates not only with the organisation of images but through the *Phillip Glass* scores that mesh synthesised arpeggiations with classical instruments and choral voices. Despite the absence of a narrative voice channelled through narrator or characters, authorial intent is made clear through the choice and combination of sound and image. While works may resist a traditional narrative arc, the connections apparent behind the choices made allow the user to draw their own conclusions and meanings. The narrative may be implied, improvised or have aleatoric elements but structure is never absent.

Summary

A digital musician constructing an audiovisual work must consider the trajectory from audio/visual object through animation and development towards the construction of a meaningful dialogue with the audience. In conversation with Australian theorist/VJ *Sean Healy* (*Jean Poole*) *Tom Ellard* (*Severed Heads*) states that "performance video has yet to escape a trivial 'eye candy' level. It is still assessed in terms of 'what

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equipment/technique" - how 'clever'. More mature artforms such as film have been able to escape that level. I have seen very few video works that made me cry." [<http://www.cyclicdefrost.com/article.php?article=735>] The development of tools that integrate the projection, animation and construction of audiovisual objects should discourage the reliance on arbitrary wallpaper visuals. Adapting the theory of Morphopoiesis to a framework for audiovisual creation is particularly useful in that it does not constrain the artist to a fixed modality; rather it provides a foundation for the construction and deconstruction of audiovisual works that support the divergent approaches that lead to a signature work.

Approaches to Audiovisual Performance

In composing an audiovisual work the practitioner may be influenced by any number of cultural artefacts and practices. Translating these ideas into performative works requires a focused set of skills extending from musicianship into various other hybrid media capabilities. The following sections outline key roles that the digital media performer engages in whilst translating a creative idea into a manageable practice.

The Solo Artist

Gone unmentioned to this point is that the term 'Audiovisualist' is singular and aligns with a tradition of 'one man bands' and other largely solo practices. This is in contrast to, and in recognition of, collaborative and interdisciplinary audiovisual works, such as Opera, that have a well-established history. 'Total Art Work' (Gesamtkunstwerk) as outlined by Richard Wagner and explored via large-scale operatic works performed at the specially designed Bayreuth Festspielhaus, might well be considered the forerunner to interdisciplinary performance, yet from a pragmatic perspective any definition of the performing audiovisualist is situated on the opposite end of the industrial relations scale to these lavish production projects. While perhaps lacking the prestige that serves as an important cultural cache, the performing audiovisualist is a much more sustainable proposition, being identified for the purposes of this paper as a singular solo digital artist that operates on a much more personal and portable scale.

By way of example, Bruce McClure has been described as a "moving-image magician" [12] but he himself prefers the term "one man band"[4]. His work exemplifies a unique approach to solo AV practice as he uses 16mm film projection loops and guitar pedals to create trance inducing minimal beats for the eye and ear. Ryoji Ikeda explores a similar form of synaesthetic minimalism from a digital perspective in his work documented on the DVD, "Formula". As a sound artist he is informed by his work with the equally experimental Dumb Type theatre company; it is acoustically driven and his absence from the stage is covered by simple visual elements that are synchronistically integrated with his sparse sound-works. Due in part to the minimalist nature of his source material, the form of his pieces develop a natural structure expressed equally through sound and image. A more instrumentalist approach is that taken by Yoshimitsu Ichiraku aka

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Doravideo; who attracted an honorary mention at Ars Electronica 2007 for his integration of VJ mash-up aesthetics triggered via live drumming.

While there are variable physical and psychological limits to the solo performers ability to control parameters in performance, the use of prepared materials and computational processes as performance prosthetics combined with the potential for significant fluency and skill development by practitioners means that the horizon of solo performer capability can seem quite distant. David Saltz states that the use of pre-rendered audiovisual material makes the live performer "subject to the tyrannical inevitability of the linear media... which saps live performance of its most critical values: spontaneity and variability." [13] In contrast Dixon embraces "the playful and transparent illusion of interaction" as a major reason to include pre-recorded media in a performance. This inclusion does not "trouble or blur the ontological distinctions involved; rather, they get their performative punch by highlighting them." [cite?] In designing the software platform Isadora, Mark Coniglio, a student of Morton Subotnick [34], has attempted to address the issues faced by the Troika Ranch dance group he works with: "Digital media is wonderful because it can be endlessly duplicated and/or presented without fear of the tiniest change or degradation. It is this very quality (the media's "deadness") that is antithetical to the fluid and ever changing nature of live performance." [7] From his perspective "the performers must have latitude to improvise if they are to take advantage of interactivity [and] the audience must have some understanding of the interaction [and/or] the instrument with which the performer controls the manipulation in order to complete the loop between audience and performer." [(Coniglio, 2004, p. 7)] The performing audiovisualist must consider interaction as an essential element of performance design to ensure that they can actively demonstrate control of the material to the audience.

The minaturisation of various recording, production and distribution technologies has provided the performing audiovisualist an extraordinary amount of freedom to locate and generate source material. Veteran audiovisualist Tim Gruchy notes that his "working practice is a seamless folding of the concepts of work and life." [Faulkner, VJ] Being able to instantly capture and store material with one of several pocket sized HD cameras on the market for later reuse has the potential to connect solo audiovisualist practice with that of the roving bard or indie-media journalist; constantly recording, remixing and presenting AV material in a semi-permanent state of creative autonomy. With a small amount of thought and effort, the bus ride home can translate to an alluring abstract visualisation with appropriately contextual sound/image manipulation.

The Technologist

In working towards a definition of the performing audiovisualist, it is necessary to understand that we are describing a creative practice that is enabled, but not replaced, by new tools and technologies. When media theorists such as Manovich [27,18] suggest that computer scientists are the greatest artists of today and the greatest artworks are new technologies we should be conscious of the temptation to fetishise "the technology

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without regard for artistic vision and content"[11,5]. Dixon goes on to suggest that "Manovich's formulation encapsulates an indiscriminate techno-postmodern aesthetic theory of infinite (yet always-already recycled) possibilities..." that serve to "mar rather than advance critical understanding of relationships between technology and art"[Ibid.] Michael Faulkner, VJ theorist and director of D-Fuse argues that technological redundancy establishes art, using the elevation of painting to "high art" around the invention of photography as an example. He suggests that artists are more likely to use redundant technology as an affordable means to express their creativity.

[\[http://vimeo.com/4676745\]](http://vimeo.com/4676745) We believe that technology is a significant, but not dominant, influence on the performing audiovisualist; that motivations, creative skills, knowledge, and sensibilities largely define and shape this emerging practice, as they do all creative practices.

Having made our precautions clear, artist/technicians like Robert (Ableton Live) Henke demonstrate the responsibilities of the solo performer to turn their hand to many aspects of the practice, as technologists, and possibly inventors of the tools and techniques necessary to realize their performances. This can make the distinction between tool developer and tool user a very blurry one. Examples of early audio visual inventions include the Frederic Kastner's Pyrophon, which worked by igniting gas in different sized glass chambers, producing strange tones and light effects [9]. Steve Langton and Hubbub produced a variation on this design for the REV festival at the Brisbane Powerhouse in 2002 [18] which was also demonstrated in recent performances at the Melbourne Docklands [\[cite/link\]](#). The interlacing of science and art in performance can also be seen in the many variations on the Color Organ principle. In the 1800s Daniel Vladimir Baranoff-Rossiné perfected and exhibited the Piano Optophonique; an instrument that utilised coloured disks, mirrors and lenses to project abstract moving colors when the traditional keyboard was played. The link between instrument and visualist gave Daniel "an unusual freedom in exploring dynamic painting that I could hardly have dreamed of before"[1]. Also of note is the buried history of synaesthetic invention by Percy Grainger, uncovered by Warren Burt in a paper delivered at the Australasian Computer Music Conference in 1994; he describes the "Electric Eye Tone Tool" as a "seven voice instrument with seven sine wave oscillators controlled by variations in light on a series of 14 photocells. Patterns painted on a large plastic sheet pulled across the plate of the instrument [causing] the variations in light." [3,14]

The technological foundations for the performing audiovisualist were laid in the 1980s when the synthesised image became a ubiquitous presence on TV in the form of motion graphics, and the advent of MTV brought with it a commercialised aspect that owed more to advertising than audiovisual experimentation. Around this time Stephen Jones debuted on Metro TV in Sydney with Severed Heads, providing a demonstration of his video synthesiser used to mix colorized patterns with taped footage and played much like the other members of the band played their audio synthesizers. His influence was demonstrable in the development of visualisations for rave events in the late 80s/early 90s, particularly with artists like Subvertigo[\[web?\]](#), who modified Panasonic MX10

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video mixers to allow the use of a Luminance Key; mixing disparate footage into pixellated surrealism whilst maintaining a political edge. Software tools like VJAMM [cite] integrated the ideas of these experimenters with the needs of the modern VJ in respect to the electronic dance music scene. While these tools finally allowed a more synaesthetic integration in composition and performance, they were restricted by the demands of a relatively narrow set of usage requirements; looping, sampling, mixing, projecting; and were limited by processor hungry video demands that easily exceeded the abilities of then current technology. These boundaries however often work to focus creativity as in the case of Botborg [cite], who utilise a simple audio/video feedback system combining digital sound with analog vision mixing, providing the flexibility to improvise a direct audio/visual synchresis through tightly organised bursts of epileptic malfunction. While their work harkens back to early 90s VJ work, their approach is akin to electroacoustic improvisation and has been adapted to suit contexts as broad as Australia's What Is Music festival and Berlin's Electroclash nights.

Alongside the release of MAX by Ircam in 1988 came a rising wave of digital performance activity that, in contrast to either disembodied (acousmatic) or embodied (instrumental) relationships, highlight a vastly different relationship between performer and instrument in which the configuration of 'musician' and 'computer' raises important questions about the ontology of each. Over the last decade and a half, not only have notions of 'performer', 'instrument' and 'performativity' been subject to intense critical reconfiguration, but artist and software producers have responded with a range of innovations that allow for not only enhanced expressive possibilities but also the ability to define personalised modes of performance in the live, digital, audiovisual realm. The solo audiovisualist has even overtaken recent conventions, such as those of Ircam in the late 20th century, by partnering 'composers' with 'technicians' in the creation of works.

The Entrepreneur

In an address to fellow academics about sustainability of musical forms, Huib Schippers notes that sustaining the committed interest of a community and audience is one of the key challenges within any art form [34]. Attunement to preferences and trends is essential in a field where innovation is a commodity. Paul Spinrad expands on this by placing awareness of the audience at the centre of the development in audiovisual performance. "As an audience, you don't just hear the applause and laughter... You're part of one enormous brain that, among other things, is working out the problem of how people in the surrounding culture and at the present moment react to things, and what reactions are and are not appropriate" (Spinrad, 2009). It is interesting to note that, despite being birthed in the realm of dance music and clubs, the place of a VJ within that scene is heavily problematised. Aside from playing second fiddle to the whims of the DJ and promoters there is also little room to stand out performatively as VJ Anyone (Olivier Sorrentino) notes " ...if people stop dancing and just stand there with their jaws dropped, staring at your visuals and drooling, then you're also not doing your job. If the crowd is watching the screen as cinema, then they're not enjoying the rest of the experience,

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interacting with other people..."[25] While there are certainly audiovisualists attempting to challenge this notion, Spinrad cautions that "our expectations and habits around being audience members have atrophied ever since movies became popular. [They] taught us to sit together and pay attention to a dead, unchanging recording rather than something living and responsive." [cite?] A reconsideration of performative context and appropriate venue for audiovisual performance is drastically overdue.

Experimental art communities remain the most tolerant of audiovisual work as they feature an inherently interactive construction of performative dialogues where the links between audiovisual performance and its applied heritage make the most sense. The strong link between organisations like Other Film and the experimental 'underground' music scene reiterate and expand upon models of artistic collectives that were often central to the initial development of expanded and experimental cinema. Localised experimental communities offer the opportunity to perform in a more appropriate venue than the dance club. Having a background in Architectural studies, Tim Gruchy [web?] put his understanding of spatial design to work with the recontextualisation of space for audiovisual performance at the Recreational Art Theme parties in late 80s Australia. Outside of the usual art gallery / cinematheque environments, and in spite of public liability laws, there is a consistent drive to the use of smaller venues with projection setups (Glitch in Melbourne) reuse of abandoned cinemas (The Globe in Brisbane) and radical (and legally ambiguous) recontextualisation of any space from warehouses to car parks to city drains. Cindi Drennan has moved on from VJ work with Tesseract [web?] to what she terms "Illuminart - installations, screen sculptures and structures featuring projection art for festivals, theatre, public spaces and corporate events." [web cite] The movement towards multiscreens and projection mapping follows a clear (albeit often neglected) lineage from expanded cinema works by the likes of Corinne and Arthur Cantrill in the 1970s [http://www.innersense.com.au/mif/cantrill.html] and not only emphasises an entrepreneurial use of space but the ability for an audiovisualist to expand out from the boundaries of stereo sound and 4:3 vision.

Aside from the obvious use of YouTube for source material it, and other online media repositories, remain a potent centre for documentation and promotion. The really important online dialogues are accessed via blogs such as Create Digital Motion [cite] and Skynoise [cite]. They exemplify the extended conversation around practice and explore divergent and innovative approaches to the use (and abuse) of technology in the creation of audio and visual art. Major contributors to CDM actively model an integrated approach by devoting themselves equally to the sister Create Digital Music site and encourage the necessary feedback loop of community engagement via the Create Digital Noise forum. CDM are also vocal in their use of the term "visualist" as an attempt to semantically expand the field from its roots which would seem to be a primary issue here. As Henry Warwick, curator of the San Francisco Performance Cinema Symposium notes "VJ is doomed, so long as it's carried by the dance scene. To evolve, the form needs to break away..." [34] not only from the dance scene but also from the legacy of Cinematic and Visual Arts it so desperately clings to for justification.

The Activist

The role of the pioneer in the activation of new artistic forms can be seen as both scientific and entrepreneurial, and in many cases also political. As a noted auteur with a history of provocation, Peter Greenaway can afford to be outspoken in this regard:

"I have been given some license to be provocative, disrespectful, irritated and angry... Because my complaint is that now, after 108 years of activity, we have a cinema that is dull, familiar, predictable, hopelessly weighed down by old conventions and outworn verities, an archaic and heavily restricted system of distribution, and an out-of-date and cumbersome technology." [15]

His 'rant' highlights the fact that an activist might choose to use revolutionary techniques to start the revolution, not merely comment on it.

The organisation of sound and visual objects into a political narrative is central to audiovisual performance and evident from the early days of VJ. AV groups like Electronic Broadcast Network and TV Sheriff and the Trailbuddies work in a similar fashion to media collagists Negativland, combining texts into juxtapositions that critique and entertain in equal measures. While the "Natural Rhythms" series by Hexstatic/Coldcut provide chainsaw subtle juxtapositions between National Geographic footage and the defoliation of the Amazon Rainforest, their Panopticon AV piece directly integrates sound bites and footage from the Undercurrents and Reclaim The Streets movements.[37] Linking political activism with digital media production serves to highlight one fundamental affordance of the democratisation of technology; a dismantling of the hegemony of meaning in favour of an independent multitude of voices.

Wade Marynowsky is a potent example of an audiovisual artist performing political texts that also challenge the nature of the audiovisual medium in performance. Frequently connecting sound to image processes, *Apocalypse Later*(1994) uses sound to destroy image (and vice versa) in an abstract work that also serves as a critique on the manipulated history of Australia's violent past. His "Geek From Swampy Creek"(1997) performance is an amusing parody of the laptop performer where Marynowsky, portraying the "Geek" clad in a brown suit, coke-bottle glasses and sporting a megacephalic brain, sits at a laptop swaying distractedly. The granular emissions pixellate, mozaic and distort the visuals until they morph into an abstracted swamp. In contrast to many audiovisualists, Marynowsky presents himself as a performer at the centre of the audiovisual performance, both physically and by extension narratively within the context of the work.[cite works]

The image of the audiovisualist as pioneer also reaches into being an early adopter of technologies and the vision that particular technologies could carry with them attitudes that challenge dominant paradigms. NATO was one of the first AV program to present itself as a work of art beyond utilitarian concerns. Built from the basis of Ircam's MAX the various builds arrive like mail-bombs wrapped in a situationist-style distribution

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scheme. With the central creator, Netochka Nezvanova being represented in public by several women, “[the] project presented itself as a sectarian cult, with its software as the object of worship.” [8] Digital media artist Alexei Shulgin considers N.N. to be an elaborate performance; “a corporation posing as an artist, reciprocal to artists who had posed as corporations before.” [8] From NATO a genealogy of both open and proprietary tools emerged (Jitter / Gem / Processing) where the focus shifted from predefined tools for production to tools for the production of tools, instruments, interfaces and personalised artworks. As Netochka outlines “NATO.0+55 has altered the Max demographics by introducing new media artists, Internet artists, video and VR/3D artists to Max. In contrast to the largely aging + medicated male audience that Max has traditionally attracted, a significant number of NATO.0+55 operators are women” [30] This shift has almost certainly helped drive the integrated media approach and opened up avenues previously closed to a new practitioner demographic.

Summary

Brian Eno recently noted that “digital technology has made music easier to make and copy, with the result that recorded music is about as readily available as water, and not a whole lot more exciting” this has in turn meant that “unable to make a living from records sales, more and more bands are playing live” (Eno, 2009) . The ubiquity, power and portability of notebook technology is one of the primary economic reasons why audiovisual performance is emerging as a low-risk, low-cost, itinerant and flexible form powered by the increasing democratisation of technology and the use of both proprietary and open source platforms to generate performative solutions that adapt to varied live contexts. With this power comes a breadth of responsibility outlined above, which perhaps highlights why visual artists, film-makers and graphic designers tend to dominate the field of live cinema. Removed from the ability to just plug and play, the digital musician must actively devise new approaches to performance to avoid the trap of lazy visualisations that fail to inspire an audience and reinforce novelty stereotypes.

Conclusion

At some point new ideas, new tools, new techniques, new aesthetics and new audiences amount to a new practice. The emerging practice of the performing audiovisualist has numerous heritages, yet is currently lacking an established framework that does more than merely use convenient technology to repeat and remix other artistic developments. Mark Coniglio points out that “... because this technology is still relatively new, our problem is how can we include it in a piece and not make it about the technology?” [34] An understanding of the interlinking frameworks that outline an audiovisual performance work and the divergent approaches that define audiovisual performance can help us towards an appropriate mode and setting to express our integrated art in a progressive fashion.

In writing about the cinematic form Greenaway notes that “the absolute strength of the medium is in its aesthetic, its relationship of language to content, its relevance to now, the

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ability to stimulate and entrance, provide stimulus to dream, legitimize imagination, set fire to possibilities, indicate what happens next... and I would say encourage wholehearted participation to the point of the panic of overexcitement." [15] With a clear understanding of the strengths of the medium, approaches to these integrative technologies and the nature of performer / audience interaction within this form, the sustainability of our art is no longer tied to assets from a previous era and the possibility that the performing audiovisualist can become a true expression of our time becomes a reality.

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