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## **Abstract**

This paper will

- examine the current state of “visual” music - film and television scores, music videos and the musical shorthand that’s developed around jingles and TV themes - and how this has affected our collective musical consciousness;

- outline the recent major technological changes in the production and distribution channels for film and video, the economic changes that inevitably follow such developments, and the opportunity they present vis a vis corporate control of the creation and dissemination of artistic works in film and video, including musical works in a visual medium;

- call for the emergence of new forms of visual music that cross boundaries - boundaries previously imposed by the economic realities of traditional production and distribution - and that make creative use of new technologies.

**Keywords: music, technology, television, film, internet**

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## Towards a New Language For Visual Music

I like to work with music and moving pictures together. Each adds dimension to the other, often in wonderfully unpredictable ways. The different crafts involved in their respective processes of creation make inevitable, it seems, their separation into distinct fields with distinct sets of practitioners. But this has always seemed unfortunate to me, an artificial dichotomy that cleaves in two a wider creative palette. To be sure, picture and music are regularly applied in the service of each other in various western media, but the results are often banal and predictable, and though there are many notable exceptions, even the best suffers from a limited expressive vocabulary which seems to have settled on the popular consciousness through laziness, lack of vigilance, or just bad luck. What is needed, I would argue, is a fresh mode for the expression of creative ideas through music and pictures, free of the cultural baggage associated with existing forms of what I call Visual Music.

For those interested in marrying music with images, there are two current models from which to depart: music videos, in which images - such as they usually are - are subservient to the music; and film and television scoring, where the opposite is true. In both cases these models are defined partly by the practical realities of the production process and partly by marketing priorities.

When music videos first gained currency in the late 1970's, an outgrowth of the TV variety show performance, they brought with them some of the dubious trappings of that then-ubiquitous genre of entertainment: concentration on performers over musical content, eye-candy imagery, pop-song brevity, bad lip sync, etc. The new format quickly assumed a formal orthodoxy that discouraged variation, developing inevitably into what is now the dominant branch of the corporate pop-star machine of the new century.

Meanwhile, a parallel orthodoxy has developed in the world of music for dramatic film and television. Composers were once regarded as a critical link in the creative process of filmmaking, and their involvement in a project may have started even before shooting and lasted several months. Today - in the mainstream, at least - music is typically seen as part of

the process of packaging a film, rather than its content. Musical score, far from furnishing fresh creative input, is usually expected to consistently underline the dramatic and emotional mood already expressed by visual content, and it often takes a back seat to pre-recorded pop songs, more highly valued for their marketing potential.

In both cases the operative principle is one of safety. Backers of popular culture want assurances that their investment is safe, and the larger the investment, the fewer risks they are willing to take. Conforming to a proven formula is seen as prudent, an attitude reinforced by those who insure music and film productions. Today it is unusual for musical, theatrical or cinematic ventures to have major production and distribution financing without subscribing to a narrowly defined notion of a marketable cultural product. While resistance to this model can't be a new phenomenon, only recently have technological developments in production and distribution presented a practical and widely accessible avenue for such resistance.

Anyone who works with music and audio can't help but be aware of the revolution in production over the past 15 years or so, brought on by cheap, accessible technology. One person can now - in theory, anyway - single-handedly undertake every aspect of musical production from performance to mastering. The quality of the product may vary, but 'twas ever thus. In the video production world, similar developments have taken place, though several years later, as computer technology had to catch up to the greater storage and processing demands of video. In the past five years we've seen the advent of inexpensive versions of high-resolution digital video cameras and powerful computer-based picture-editing workstations and compositing systems. These are now giving unprecedented access to the film production and post-production process, just as MIDI sequencing, sampling and later audio workstations did for music and audio production a generation earlier.

It's worth examining the scope of this change, but for the sake of time I'll simply refer you to the conference proceedings. You'll find a comparative cost breakdown for feature film production costs, ancient and modern, in [APPENDIX 1](#).

The point of all this is that the most essential tools of filmmaking are cheaper by several orders of magnitude than they were even quite recently, and the trend shows no signs of slowing down. It has already spawned a growing “guerrilla filmmaking” movement which is turning out some remarkably accomplished work with very respectable production values. Communication among political activists, non-governmental organizations, teaching institutions, co-operatives and other alternative voices has also benefited from having access to such vastly superior tools. The process is one of democratization. The means of production, so to speak, is passing from few hands to many.

Cheap, accessible production tools are opening some doors for creative filmmakers, but their value is somewhat limited if one’s creative output is still tied to the traditional channels of film and video distribution. In the second component of this technological revolution, rapidly increasing internet bandwidths hold out the very realistic prospect of bypassing these channels altogether. We can see this process at work already in the growth of the independent music distribution scene on the world wide web. Many artists lacking the money, connections or business acumen to secure commercial distribution have marketed their work on line and done well with it, strictly from word of mouth and the intrepid explorations of web-surfers. Record labels, music distributors and retailers are quite rightly regarding this development with some alarm, and so should those involved in film and television distribution, because they’re next.

The networked world will bring forth many as-yet inconceivable distribution models, but whatever the forms they eventually take, by and large two general principles will apply to distribution:

- up-front distribution costs will be lower, by virtue of keeping to the digital world as long as possible, and
- direct access to cultural consumers will negate the need for a “critical mass” of interest in order for a project to justify itself - films will no longer face the need to recover costs in the first few weeks after release, before the hype wears off. Again I refer you to the conference

proceedings for a comparative analysis of distribution costs for feature films traditionally vs. on line. See [APPENDIX 2](#)

In short, films in the near future will be made so cheaply that their producers will no longer be beholden to the studio suits whose single-minded stewardship all but ensures mediocrity, and distributed so cheaply that they can afford to stay in distribution indefinitely, no longer betting the bank on the first weekend box office take. And, as is the case with the independent musician whose modest recordings are marketed on line, not hitting a home run will no longer render a film a financial failure.

Let's get back to music. How does the radical democratization of film production and distribution affect what we do? It seems to me that we shouldn't regard it simply as an opportunity to score more interesting films, or as an easier avenue for our client's rock video. Certainly it gives us those, but why limit ourselves to alternative ways of producing and flogging the same forms of cultural expression? Evolving channels of communications necessarily bring about an evolution in the form and content of our communication (to awkwardly paraphrase my rather better-known countryman). This isn't always an improvement, but it does provide windows of opportunity. When music videos first appeared, many of us either dismissed the new format as hopelessly corporate, or allowed ourselves to be passively amused by its novelty. It's conceivable that, had enough energy and foresight been applied early enough - before the emergence of the MTV culture - a broader, more creative definition of "music video" might have emerged, one that creative minds beyond the top-forty set could enthusiastically embrace.

Today we appear to be at a similar juncture: another opportunity is opening up as the map of the landscape of cultural expression is once again being redrawn by technological developments. There is no doubt that things will continue to change a great deal, but I believe that it's possible for creative minds to actively shape those changes by examining the new environment with a critical eye for new possibilities. The question that we as musicians and producers in this new environment should now be asking is, what barriers can now be crossed? What limits, previously taken for granted, can be questioned, or ignored? What new

forms of creative expression does this new universe open up to us? How can we shape such a canvas?

There will be many answers to these questions, I hope, and lots of new forums for new forms of expression. For those who work with music and pictures, we can now question the imperatives of the production process itself. Indeed, it is now quite conceivable for the procedure of editing and synthesizing visual images to occur simultaneously, or interactively, with the procedure of recording and editing music and sound - even for all this to take place within a single personal computer system. A picture editor's decisions - regarding details like slate choices, shot order, transitions and pacing - can influence, while also being influenced by, a composer's decisions regarding details like formal structure, tempo, texture, and harmonic development. Thus, an instantaneous creative cross-pollination, previously precluded by the exigencies of the traditional production chain. Indeed, the visual and the aural elements can be regarded as different colors on a unified palette, visual music conceived and executed as a single creative work.

Which seems to imply a single creator. I expect objections to this: How many people will want to learn the skills and develop the instincts native to an entirely different discipline? Won't it just create a flock of practitioners with only superficial expertise in one or the other? And for those who really apply themselves to learning both visual and musical expression, isn't it counterproductive to expand one's interests too far - don't they risk consuming all their energy and watering down their creative output?

Firstly, all of these accusations were leveled at the early advocates of MIDI and digital audio in the composition process. And they were all true, to a degree, but that didn't preclude the eventual emergence of a class of serious and talented composers with complete fluency in the use of these tools. The same applies to visual musicians. If they have something worthwhile to say, they'll develop the means to express it. The technical tools of a creative trade are the vocabulary of its expression. Proficiency in their use requires a certain degree of commitment, and an expanded vocabulary demands a longer commitment. Even something as

simple as a telephone would seem complex and frighteningly abstract to the uninitiated, yet in many parts of the world its use is all but universal.

Furthermore, treating the visual and the aural as a single creative palette doesn't necessarily require that its use be restricted to individuals. Creative groupings of artists are common in many disciplines, and produce interesting and even important works. Film production can't help but be collaborative - music can be too. The degree of "hands-on" in the visual and the aural will certainly vary.

Still, there is a pervasive resistance to interdisciplinary skills-development. We seem to have an unconscious tendency to fence the world off into independent artistic ranges, discouraging too much boundary-crossing. And the more developed we are at our chosen discipline, the more pronounced our territorial preoccupation. But it's my contention that such boundary-crossing is profoundly rewarding, and never as long a leap as it first appears. The case of a composer learning video editing is a good example. There is much common ground: rhythm, pacing, contour, etc. The instincts regarding timing that a picture editor must hone are precisely those of a musician. Editors discuss pacing in terms of "beats", and frequently rely on music for structural rhythm. Moreover, the mechanics of video editing are actually not very difficult to learn - especially for someone who's used digital audio software - and it's getting easier.

So, just what should the new forms of visual music look like? Well, I would not attempt to dictate some kind of new orthodoxy to replace the old one. Artists will, naturally, define forms as their inspiration dictates, but with fewer constraints and more collaborative tools. I am very interested to see other people taking this in different directions. For whatever it's worth, I've outlined where I've begun to go with it in .

As we get deeper into the creative potential of visual music, expanded resources will enable different forms to emerge - things like wider aspect ratios, multiple visual "tracks", different multi-track audio configurations, even 3D visuals. On-line exhibition of finished work will certainly enhance the creative possibilities for experiencing visual music. Imagine, for

example, a 3D environment containing a group of performing musicians among whom a listener can stroll, hearing the changing instrumental balance, and even looking at the musicians' written parts. Perhaps one could choose to sit down in, say, the oboist's chair - thus disabling the oboe track - and read the part and play one's own oboe to the conductor's cues. Or a 3D walk-through might allow the listener to experience a changing balance of musical material supplied by different composers working on line to a shared visual, and perhaps a unifying bed track. Composers may choose to make parallel - or even digitally slave - some aspect of a sound to an aspect of the picture: the dominance of a particular colour, the size or position of a figure within the image, the apparent height of the viewer's position, etc. Imagine the formants of a singer's voice changing correspondingly as she gets closer to and further from another figure in her visual world.

Obviously much of this speculation involves technologies and techniques that have yet to be developed. But if we've learned anything in the last generation from our experience with technology and the creative domains that make use of it, it is the folly of allowing ourselves as practitioners to remain perennially behind the technology curve and its economic effects. At the risk of perpetuating a Canadian stereotype, I feel compelled here to draw upon a metaphor from whitewater canoeing: a paddler going downstream slower than the current is carried by the river. It is only by going faster than the current that one can have the degree of control necessary to anticipate and steer through the obstacles - and opportunities - that the river presents. The time to begin fashioning the new creative forms that will enable art to grow and develop in the twenty-first century is now. Not when technologists have offered us new tools and applications whose development is already heavily mediated by the marketing machines in whose interest the emergence of groundbreaking artistic work is so often slowed or thwarted altogether. By assuming a forward-thinking participatory attitude, and taking the responsibility inherent in such a stance to learn an expanded vocabulary - to dial our own phones, as it were - we can take part in shaping the forms that our future works will assume, rather than inheriting them.

An important step in this process, as I see it, is the formation of an organization of visual musicians - as distinct from, say, film composers or producers of music videos, though some



overlap is inevitable. In time such a group could provide and an on-line forum for the exhibition of works, for the organization of installations, screenings and workshops, and for general communication and creative sharing among members, skills exchange etc. The organization could eventually have some kind of institutional backing, whereby sufficient computer horsepower and storage could be allotted to make practical the on-line exhibition of a variety of artists' work. I invite those interested in such an endeavor, or in the field of visual music in general, to contact me either here at the conference or via email, phone or mail, if only to assure me that I am not completely alone in my preoccupation. Thank you.

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## APPENDIX 1

It is difficult to compare different production strategies and equipment, since there are so many variables involved, and different degrees of compromise in various areas are more or less acceptable depending on the content of a film. For the sake of comparison I'll cite two areas where costs have dropped significantly in recent years: cameras and editing suites.

It was once deemed essential that all serious production, especially dramatic work, be shot on film. Video could match neither the resolution nor the texture of 35mm film stock. Although much high-end production is still shot in film, it's no longer considered obligatory, due in part to dramatic improvements in the resolution of video cameras, and in part to widely available post production processing for imparting a film "look" to video. Recently the quality of industrial-grade DV cameras has improved to the point that feature production work is being undertaken using DV alone. A widely cited benchmark for technical quality in video production is the set of specifications set out by the Society of Motion Picture and Television Engineers (SMPTE) in their international broadcast standards. A decade ago, a 35mm film camera whose optics provided sufficient resolution to meet these standards could not be purchased for less than \$250,000; a professional video camera of comparable picture resolution would cost \$120,000; in a package with suitable tripod, lenses and battery pack, perhaps \$150,000. Today a modern DV camera will easily pass the grade at \$6000, perhaps \$8000 for a complete package. While such a camera might not have every feature of a modern digital betacam, many features it does have were not available at any price a decade ago.

As with shooting, it was once necessary to edit a film in the medium in which it was shot and would later be exhibited, namely film, and for a feature that meant 35mm film. This process was very expensive; just the cost of work prints and mag stock (the sprocketed magnetic film on which sound is edited with film print) contributed significantly to the post production budget. Though it's routine today to undertake virtually the entire editing process in a video workstation, even for a theatrical release, feature post budgets nevertheless remain very large

- on a \$20 million production it's not uncommon for post to cost 5 million. Even a network movie of the week, with its relatively modest mandate, post can often cost \$500,000 to a million. Yet the cost of all the technology involved has dropped drastically in the last decade.

Let's just look at on line video editing. In 1991 the cheapest available video editing system capable of outputting broadcast quality edited video with fades and dissolves would be an on-line Betacam A/B roll edit suite. To put a suite together, including machines, controller, switcher, mixer, ancillary equipment and installation, it might have cost about \$500,000 or you could rent it with an editor for \$300/hour, or more, depending on your needs. Today such capabilities can be purchased in a personal computer-based system for \$20,000, including the aforementioned DV camera and the means to control it from software. It would also include a comprehensive effects and compositing system the far exceeds anything available ten years ago at any price. And as we must all know by now, putting another \$7000 or so into the same computer gives you a zillion-track 32-bit audio mixing facility, complete with CD and DVD mastering.

Now, it's true of course that there are many costs of making films that haven't gone down - cast, crew, locations, lower-tech equipment such as lighting and vehicles, etc. Films will still cost money to make. But where it's possible for producers to hire many of these things - even cast - at a discount or deferral, this has rarely been the case with cameras or editing equipment.

(above)

## APPENDIX 2

Consider the traditional (Hollywood) model for feature film distribution: a significant part of the budget of a major feature release is allocated to hyping the film to create early interest - usually more than the cost of the production itself (although the studios won't acknowledge this publicly). This will include huge local and national newspaper and magazine ad campaigns, cinema trailers, lots of radio and TV spots, and expensive press junkets to insure favourable reviews from grateful media folks, regardless of content.

Because of the limited shelf life of most expressions of popular culture, especially those whose legs are created by hype, it's necessary milk them while you can. Theatrical films will generally have many prints in circulation at once, on a major feature as many as 2000, each costing perhaps \$15,000. A ten-reel 35mm print is very heavy, and as it can't afford to spend any more time in transit than necessary, it's got to ship express every time it shuttles from one cinema to another. Print shipping costs alone for the first run for our typical feature might be \$2000 per print. And of course, every one of those prints has to be insured, not only for the cost of the print, but also for its earning potential in that limited first-run window. This is pretty subjective, but insurance costs for a major release commonly reach \$3 million during the first run.

Factor in the profit margin for the distributor and our total marketing and distribution budget for a feature that cost \$20 million to produce - modest indeed by Hollywood standards - might total around \$35 million and this doesn't even touch the costs of running the cinema. Perhaps one in ten films recovers its production and distribution costs, but as Hollywood sees it, that one more than pays for the other nine. This is why their ad campaigns are so intense.

Now consider the costs of distributing a feature available for download. There might be a day or two of file encryption and conversion to accommodate cross-platform/format compatibility, maybe \$2000. There's the cost of renting server space and backup, with multi-user wide bandwidth access for the duration of the film's run - no more than \$1500/month.

You will probably still want to advertise, but since all your costs are now so much lower, the pressure to strike gold by carpet-bombing promotion is just not there. If you're ambitious you'll edit a couple of trailers while you're cutting picture and sound, and float them on various linked marketing sites. Your whole marketing and distribution budget for the first year might total \$50,000. And of course, my estimates are based on current costs, and as we've seen, the cost of high-tech drops very quickly.

Of course there are many caveats to this whole analysis. Firstly there is undoubtedly a reason that people choose to pay a rather high price to view films in cinemas when they could be watching *Movies of the Week* on television for free. In some cases the difference is the actual content, but too often, I would submit, people, whether they know it or not, are going for the technical enhancements – the big wide picture, the multichannel sound and the boomy bass. To be sure, it will be a little longer before the experience of viewing a film downloaded at home has all the bells and whistles of a mainstream cinema screening - high resolution wide-screen picture, 6- or 8-channel surround audio, etc - as these things add significantly to file size (and the consequent demands on bandwidth), and require an appropriately-equipped screening system. But soon enough these features will become the norm for web-distributed films, and as they do media conglomerates will scramble to add more enhancements in an increasingly desperate attempt to reinforce the vanishing distinctions between the cinema and the private web-fed media experience. Secondly, I recognize that the comparison is somewhat unfair. Part of what makes conventional theatrical releases so expensive is the necessity to release in the form of 35mm film prints, a very expensive medium at every stage. Except in a few very recent and very experimental cases, this necessity has continued to this day, the on line option only gradually being realized. Moreover, there are already alternative models to the Hollywood distribution system that make use of conventional theatrical venues but manage respectably on much smaller distribution budgets. The point is not that it can be done cheaper, but rather that it can be done so much cheaper that the process becomes something different and changes the priorities of the producer.

As television once fragmented the market previously owned by the studios, and cable, specialty channels and video rentals fragmented the market of the networks, so too is the

internet grabbing a chunk of TV and film audiences, and the availability of film content on line will expand that chunk considerably.

(above)

## APPENDIX 3

My first tentative steps away from conventional film and music vehicles have tended to involve blurring the distinction between music on the one hand and other aural elements such as dialog, sound effects and ambiance on the other. These “non-musical” elements will typically appear first in a conventional context, often reinforced visually, then later re-emerge as musical elements - frequently processed or in fragmentary form - in a more impressionistic context, taking advantage of the association that visual reinforcement creates. The corresponding visuals may also reappear, similarly altered, with or without the sound. When several such distinct visual and/or aural elements from a scene are similarly treated, the recollection of the variously altered sounds and images suggests the original scene in a vaguely subliminal fashion, giving the music an evocative quality without really quoting directly.

The picture provides an extra dimension which can reinforce the identity of a sound, even when only obliquely suggested. Working to picture, a piece that uses unpitched sounds can achieve a greater complexity before risking disorientation - the visual elements somehow make it more comprehensible and less fatiguing. Here it is extremely useful to employ the techniques of mixing for film and television, such as allowing an aural element - be it an instrumental voice, an ambient track or a distant dog barking - to play at a noticeable level just long enough for it to register consciously, then subtly bring it back down just to where it contributes something to the rest of the scene without muddying it. Our ears have thus already been introduced, so even just a hint of the sound is enough to invoke - and maintain - our aural memory of it. Often too, a sound appears initially over a supporting image, again reinforcing its identity in our aural memory for the rest of the scene.

This visual reinforcement is one of the secret weapons of the visual musician. And it needn't apply just to non-pitched material. Visuals can form an identification with a musical motif, an instrumental voice, a rhythmic idea, any musical material, such that restating or partially quoting it suggests the picture - or vice versa - at any subsequent point in the piece. They

become a kind of shorthand, an abbreviation for each other. And when you're trying to avoid a sense of excessive density, brevity is key.

Dialog can be used and altered the same way as effects or ambiance, but given its literal content, it can easily be overdone or used too bluntly. I usually prefer to choose innocuous, seemingly irrelevant words less likely to evoke some mistaken philosophical interpretation. Each appearance may be further altered in various ways, which again serve to obscure or play down its content and make it linguistically inert.. Repeated iterations render it an increasingly abstract aural event. Sometimes I'll allow the original dialog to appear again at the end of the piece, unaltered and in sync with the picture, but now carrying the evocative weight of what it's just been through.

Picture elements may also be subject to similar abstraction - for example realistic footage blended with animation or completely impressionistic images and later recalled momentarily, often in some processed form - departing significantly from the original image, but casting back to it, perhaps reinforced by audio information. Similarly, formal principles from music such as counterpoint, theme & variations, cadential rhythm, solo & chorus can also be applied in some form to visuals, as well as to non-pitched audio material. Just as is the case in the audio world, the flexibility of non-linear video editing systems allows for considerable painless (non-destructive) experimentation, and various 2D and 3D animation programs and compositing software further expand one's creative palette.

(above)



## **SOURCES**

### **Institutional resources**

American Film Institute ([www.afionline.org](http://www.afionline.org))

San Francisco State University Cinema Department ([www.cinema.sfsu.edu](http://www.cinema.sfsu.edu))

The Canadian Film Centre ([www.cdnfilmcentre.com](http://www.cdnfilmcentre.com))

Cinemaspace ([www.cinemaspace.berkeley.edu](http://www.cinemaspace.berkeley.edu))

The No-Budget Film Network ([www.cybergecko.com/no-budge.htm](http://www.cybergecko.com/no-budge.htm))

### **On Line Publications**

Mix Magazine ([www.mixonline.com](http://www.mixonline.com))

The Hollywood Reporter ([www.hollywoodreporter.com](http://www.hollywoodreporter.com))

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