THE COMPUTER GRAPHICS CRISIS

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T his poster session is entitled The Computer Graphics Crisis. By crisis I am referring to an aesthetic crisis, which I see currently occurring in the areas of computer graphics, computer animation, digital image making and multimedia. This crisis can be pinpointed in a number of different areas. It also throws up a number of questions which I have left unanswered. Computer Art, multimedia and technology based work, is certainly not in short supply of interesting ideas. However it is often the aesthetic systems which deliver some of these ideas, which I believe need to be evaluated and questioned more, before they are used.

The Computer Graphics crisis can basically be broken down into the following, which I see as the critical points:

1. The over use of default software tools
2. The fetishism of the photographic model in computer graphics
3. The rejection of Popular culture and popular iconography within the realms of computer art

I should state from the outset, that this poster session is not intended to be derogatory to any particular work or person working in electronic art. Indeed I see my own work as suffering from some of the very problems I am questioning.

The dreaded image filter:
In much the same way as the personal computer revolution had the side effect of producing instant graphic designers overnight, simply because one used a computer, Electronic Art, Computer Graphics and indeed multimedia is in danger of travelling down the same path. This syndrome is perhaps most visible at the base - consumer domestic level, where instant one stop shop computer graphic/multimedia kits and software packages offering quick and easy solutions, with their standard set of default-factory presets, image libraries and clip art, don't help the situation either. However this kind of thinking by default syndrome, is also prevalent where it shouldn't be - in the development of new and innovative electronic art.

The reliance and overbearing use of programs like Photoshop for example with it's standard set of default image processing tools, can sometimes result in work which looks the same. Contrary to the claims that the computer is liberating and free of all creative constraints, the opposite can sometimes occur: generic and predictable computer graphics, with a major image problem.

This in itself is part of a more critical problem I see, concerning the design and over simplification of the computer user interface. User friendly systems might enhance productivity, but are another story in promoting real aesthetic difference and diversity for the artist. Where by the user can sometimes become locked in to a certain way of working, which is dictated and reduced to available "user friendly" default software tools. Certainly there is a great deal of interesting work being produced in computer graphics, animation and multimedia, however I feel more artists should be aware of producing work which is of a particular and distinctive graphic style and of their own individual aesthetic, rather than the aesthetic and mark of a particular default image filter or software tool.

Already we have "Internet in a Box" I can see the advertising now for "Computer artist in a box":

"Thinking about computer graphics, what about computer art ? No time to learn complex software, introducing "Computer artist in a box", no fuss, no messy manuals to tie you down. "Computer artist in a box" gets you up and running fast, letting you produce amazing works of electronic art quickly and easily from our extensive image libraries and data sets..."

You get the idea...forget about creativity, forget about individuality and artistic vision...just point and click, and while this maybe humorous, it is also kind of scary.

This kind of reduction to default software tools reaches it's worst and most literal example in those programs that simulate the brush marks of master painters, a kind of depressing technological join the dots. where by just because technology has made it possible, it doesn't necessarily mean its a good thing.

Experimentation with a given medium's tools and their methodology is of major importance to the creative development of any medium. However the emergence of computer graphics and in particular multimedia, has seen that everyone seems to use the same industry standard accepted software. The concept of medium experimentation and exploration becomes a real concern. And how is real aesthetic diversity ever likely to develop if everyone uses the same basic tools in the same way ? And more importantly, software tools, which in a sense are already a point of view and a pre-determined set of rules laid out by someone else: the software programmers and developers.

My own introduction to computer graphics was with the low end, accessible Amiga computer, where one couldn't disguise the outcomes as anything but, raw, electronic graphics in their crudest pixelated form. Certainly a long way away from the latest state of the art in computer graphics, which I am working with these days, but so what ? I have always seen the pixel as a stylistic device and a graphic feature unique to low end computers and something to embrace, rather then disguise. The pixel itself is the lowest common denominator of the machine generated image, and when visible, in a way de-mystifies the computer image, destroying the surface and breaking it right down to it's most primitive of all elements. Which in many ways, is where my particular aesthetic in computer graphics has developed from - this notion of the technologically primitive, as both a graphic sensibility and thematic device is carried through in all elements of my work. It is because of the nature of low end and low resolution systems like the Amiga, that my own aesthetic style has emerged. It's within those chunky and crude paint programs and rudimentary drawing tools, that I have had to rely not on the limited software tools at hand, but on the aesthetic bent and attitude I have brought to the computer and to the software

There is also a case here, I believe for obsolete technology in computer art. The latest doesn't always signify the greatest, and certainly if one looks at Techno and rave culture, as living proof of how the integration of obsolete technology can have a profound effect. Along with the real time control and manipulation of Amiga computer generated imagery...analogue musical equipment from ten and twenty years ago has been embraced by Techno, because it delivers a specific sound unobtainable with the latest digital technology.

Computer graphics and multimedia can suffer from the perpetual 'state of the art' syndrome, where value judgments are passed on hardware and software standards and we are quick to talk more about hardware limitations, and current software versions, then we are content, ideas, concepts, etc...

The photographic model
The technical evolution of computer graphics has seen the emulation of photographic values as a major goal. From the 3D software package, which simulates camera lenses, f-stop settings, and light sources through to the process of scanning and digitizing existing photographic images, the computer has re-defined the site of actual image production and aesthetic creation for the artist in many ways to the site of image processing and image transformation. These days many artists, manipulate, distort, transform, and process images, and popular software titles from Digital Darkroom, Photoshop, Photo Styler, Photo Lab, to Texture Explorer and Image effects, give further indication to these photographic and image processing preoccupations...

The fetishism of the photographic image and process is in many ways the basis of another aesthetic dilemma for the computer artist - leaving one with the question: what of the connections of computer art and computer graphics to the rich and non photographic aspects of our visual cultural history and aesthetic production.

Their is a already a long history of image styles, codes, and gestures within our visual culture, that are indeed non photographic, and non cinematic, but - graphical and which communicate their meanings graphically opposed to photographically.

These days technology has redefined our visual landscape, images are increasingly mediated electronically and more importantly: iconicly, for example the reduction of computer game characters to graphic symbols, or the computer user's interface reduction to graphic icons. The very concept of graphic language underlies the production of meaning in our culture in many different ways.

Fine art and specifically Pop Art has already absorbed the graphic iconography of Comic Culture, Japanese Manga, and cartoons etc... However the development of computer graphics can sometimes sidestep the graphical and consume the photographic model. It is as if photographic realism and the photographic process carries with it a higher aesthetic currency and meaning, because it approximates actuality, or at least actuality as seen via a computer, opposed to a graphic sensibility which interprets reality symbolically and iconicly. For example the invention of photography at the turn of the century saw that Impressionism in fine art did not merely try to emulate the new technology but instead focused on those elements unique to the medium through a symbolic and subjective representation of reality. The question remains why is computer graphics spending so much time re-inventing the photograph? and the photographic process?

My own endeavours in computer graphics, computer animation and interactive work over the last five years or so, has partly been in response amongst many other things, to some of these aesthetic issues and concerns I see surrounding me.

Aesthetic diversity it seems has not historically been the mediums strong point. Partly I see this as systematic of artists relying on default software tools, which has resulted in the emergence of a generic look of 'computer art', but possibly because the aesthetic development of computer art and computer graphics has partly been associated with a technological one - higher resolutions, more convincing raytracing and more sophisticated texture maps etc, rather then a development of individual graphic technique and application of illustrative style.

Pop culture and computer art

Currently I am working on an animation entitled "Astroturf" which came about as an attempt to bring my particular aesthetic bent and graphic style to the world of high end 3D computer animation.

"Astroturf" tells the story of how humans are devolving through their interaction with new technology, consisting of different 'technological time frames' from prehistoric times, to the 1950's and through to the 23rd century and beyond. "Astroturf" presents a number of test cases which attempt to show in comical terms, just how humans have related to the machine.

Technological devolution is part of an ongoing theme in my work. And while such a premise is largely tongue in cheek, it is also in some ways, a stab at new technology hype and the interactive hysteria we are experiencing. Such a premise is also well suited to humorous scenarios relating to how we are interacting with emerging technologies.

The name "Astroturf" has it's origins in the boom period of the 1950's and the invention of a wondrous new synthetic product, an artificial replacement for a natural surface.

Tied in with this is a wide eyed 1950's utopian vision of the future and technological innovation along with it's references to both the Jetsons and Astro boy. The name Astroturf lends itself to interpretation - it's that place where the future happens, and the territory or the turf, of technological invention, where the synthetic replaces the natural.

"Astroturf" depicts a world where as a result of our accelerated evolution through technology, we are actually evolving to such a point, that the only place left to go is backwards to a pre - technological state. One scene for example, currently in progress will depict how the increased miniaturisation of microchips has developed to such a point that microchips have become invisible and therefore no longer exist, which results in a new pre technological primitive environment.

With so much attention these days focussed on the acceleration of our culture through technology and our integration with it, many of the concerns in my work are grounded in the everyday (reasonably) low tech world, which draws on many of the cultural and urban myths surrounding our irrational fears of technology, its so called dangers, and our obsessions with it. For example: If you watch too much television, you will get square eyes, or radiation from computers can cause mutations etc.

The way in which these cultural myths surrounding technology have been depicted throughout films, television and the media in general, via stereotypes of technology running amok and machines controlling peoples lives, to destructive computer viruses and crazed mad scientists, these serve as inspiration to my animations, which seek to heighten and exaggerate the absurdity, and hysteria of our integration with technology in a variety of different ways.

Humans in particular in my work, have a grotesque, mutated quality - possibly the result of some unknown technological radiation source. These characters are also the result of unhealthy habits and obsessive compulsive behaviour associated with their technological environments.

Aesthetically, computer art largely depicts a technological utopia. I see my work as drawing somewhat on a dystopic world, or at least a world which is malfunctioning somewhat and where the side effects of technological integration has given way to mutation and the grotesque. This basic theme is also carried through to much of the technique and style of my animation work, which is almost non animation, movement is simplified, and mechanised and characters are resolutely one dimensional

and under developed. In many ways the antithesis of much 3D animation which models it's environment on reality and actuality. The environment in my animations are unashamedly cartoonish and exaggerated. I am less interested in simulating realism and life like behaviour, then I am in conveying a stylised subjectivity in animation through caricature and humour.

While much 3D animation lends itself to high degrees of realism and verisimilitude, the more real then real appearance of 3D surfaces and environments can at times appear almost hyper-real and truly otherworldly. This synthetic, artificial look is something my own work has attempted to capture using current 3D software, which I see as just another stylistic device, much like the use of the pixelated graphic surfaces of my earlier work. In many ways my recent work is a contradiction - while it uses relatively sophisticated hardware and software to realise outcomes, my aesthetic concerns are essentially primitive ones: limited animation, reduced narratives, simplistic characters, etc..

The crude and economical movement in my animations are as much a result of animation shorthand and impatience with the animation process on my part, as they are attempts at humour in a medium so obsessed with conveying life like behaviour and realism, sometimes for no other reason then simply because it can. What many see as the way not to do things, I have always thought the opposite - you should always do what you are not supposed to do.

The twilight zone

The electronic artist is an odd species and appears to live a strange contradiction, between being dependent on commercial facilities and the consumer world of the latest hardware and software and yet at the same time trying to distance themselves from this world in an attempt to maintain their own artistic integrity and personal vision. This uneasy collaboration seems to have an effect on the artists own sensibilities, where aesthetics and content is taken to the other extreme of the cultural spectrum, often resulting in work which is completely removed from the popular culture from where technologically, it sprung.

As a result of this, no middle ground has emerged between popular culture and the cultural location of electronic art. The dilemma for myself, is because I am working with popular imagery and iconography in a medium (the computer) which is essentially popular, is that by the time my work is received in the fine art/electronic art context and has crossed that invisible cultural boundary between high art and popular culture, anything I am trying to say in my work is instantly diffused and evaporated.

Like much of my work "Astroturf" sits somewhere between the world of commercial computer graphics and character animation on one hand and experimental animation and fine art on the other. I have always had an interest in all of these areas with varying degrees and see no reason to work exclusively in one or the other.

While this awkward cultural location which most of my work occupies, being neither here nor there, but in limbo somewhere in the twilight zone between electronic art and the commercial world, could be seen as contradictory and problematic to some, I have always viewed such a location open mindedly as offering the basic foundation of a rich cultural diversity: a dynamic site where the exchange of ideas and processes between electronic art and new media touch base with the pulsations and vibrations of popular culture.

Rather then adhering strictly to a fine art tradition, my own sensibility and concerns have been informed by and traveled the historic and aesthetic route of Pop art, cartoons, caricature design and comic culture. My graphic style is a rejection of those classic high art values concerning the depiction of beauty, and instead draws upon what are essentially low art influences: the grotesque, the comical and the slapstick.

While there is already a strong history to ugly and grotesque art, (Daumier, Grosz and Charles Burns are examples that spring to mind) the technological age gives the grotesque great significance. It is the dirt and grime of contemporary computer graphics, the antithesis of the pristine, flawless, virtual world. Currently the depiction of the body in contemporary culture, where the advances in cosmetic surgery and genetic engineering technology, have given rise to a concept of beauty of truly unnatural proportions. The whole idea of what is beautiful and what is freakish these days is questionable. And this is where I see my own ugly, computer graphic aesthetic emerging out of...

Often dismissed as the site of low art and not worthy of serious consideration in the heady world of new technology and electronic art, the graphic surfaces of comic culture and cartoons (for example) have had a dynamic impact on graphic language and aesthetics over the years in all sorts of ways, which is largely ignored in the realms of computer art, for one reason or another.

Computer graphics, multimedia and new technology based work has the potential to be revolutionary mediums, and they should be used in revolutionary ways...and in the process should always question the very notion of accepted standards, values and aesthetics...

For as much as Computer graphics and electronic art has already emerged as an interdisciplinary medium, I feel it must also accommodate a multiplicity of styles, aesthetic sensibilities and attitudes, in order to expand and grow as a medium. The fact that my very own aesthetic sensibilities and concerns are at odds and in some ways a contradiction with current electronic art practices and the general status quo, is precisely the point - and reason enough to see that there is a cause for concern. There is a need for electronic art to open it's eyes and ears and look towards alternative cultural histories and real aesthetic diversity, to counteract the current computer graphics crisis.

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