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M3: CODE The editorial

ByMute Editor

Editorial

Including: ’The Californian Ideology’ (condensed version) by Richard Barbrook and Andy Cameron, Jordan Crandall on Blast’s Bioinformatica issue, Suhail Malik ’Angel, Virus, Cyberspace Breakdown(s)’ part 1 + Helen Cadwallader on Stefan Gec and Martin Conrads on Oval.

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ByJames Roberts

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While the British Film industry strives, yet again, to raise itself from the dead, there is at least one area where things seem to be going right. Digital post-production and FX are probably the last aspects of film and television production at which Britain still excels - but will it stay that way? When Industrial Light and Magic recently manoeuvred themselves into position to take an Oscar for ’inventing’ digital post-production, the nominating body did a little research and discovered that London’s Computer Film Company were actually there first. CFC gained its early reputation on the high quality of digitisation and film output possible with its own custom hardware, but, like so many other British businesses, CFC have seen their early technical innovation erode as the power of off-the-shelf hardware and software improves and new competitors, such as Kodak’s London-based Cinesite, have appeared on the scene.

After Effects - James Roberts

Until recently, the bread and butter of CFC’s business had been ’invisible’ effects; the post-production work unnoticed by the viewer. Dust and scratch removal, Continuity corrections and economy measures, such as the compositing of crowd scenes from individual shots of small groups of extras, are all examples of the kind of work CFC’s Paddv Eason refers to as the ’fix-it-in-post production syndrome afflicting producers with overstretched budgets who don’t want to re-shoot. This is

gradually changing as CFC has begun to expand its horizons. Elements of the recent Smirnoff Vodka campaign, for example, were modelled on CFC's new SGI machines running Wavefront and Flint. 3D modelling and the compositing of computer graphics with live footage are becoming an increasing part of the company's workload with projects such as Dennis Potter's Cold Lazarus: an inter-war vision of the future involving a sophisticated blend of 3D renderings and 'real' film. As more mainstream hardware and software finds its place in the company, its research and development efforts are being focused away from proprietary technology and into integrating standard equipment into CFC's own systems and adding custom functionality to standard software packages.

This has become a necessity, at least in part, because no company in Europe is able to compete with the massive R&D budgets of American organisations - such as ILM and Kodak - yet, to maintain a creative edge it is vital that computer graphics and effects work is not dictated only by what is available in standard software packages. This is only too clear when you recall the CG fashions that have afflicted television advertising and cinema: from morphing to bouncy objects and deformation block animation to the current vogue for lens flare in everything. While CFC have the resources and skill base to customise their tools, smaller companies like Christian Hogue's Lost in Space, find the solution to be one of taking a more creative role in the post-production process and through collaboration with artists in related fields. Hogue has found that as software has become more sophisticated it has become more accessible, drawing back people with specialised, non-computer-based skills - designers and character animators for example - who were previously excluded from digital production.

London has strong creative resources and involving them in post-production and effects work is one way to keep abreast of the competition. Hogue recently collaborated with graphic designer Neville Brody to create the retro graphics and wireframe models in Judge Dredd and the two are working together again on the forthcoming film Mission Impossible. Such collaborations have developed reciprocally, with Lost in Space becoming involved in print media work. In a project with the design company Me company, Hogue produced the 3D polar bear on the Bjoerk Army of Me album sleeve in collaboration with a model-maker (the real kind).

This kind of working process, which draws on the resources of artists with strongly specialised skills and creative input rather than simply setting operators to work on a storyboard, is likely to develop radically with the introduction of 'Soholink': the ATM fibre-optic network that will link the various post-production houses in Soho. When this is finally complete, full resolution images and digitised film will be able to be shuttled between companies so that each can apply there own specialised skills. In this scenario, the emphasis will change from a question of whether a company can handle an entire job, to one of what they are best at doing.

The Californian Ideology

ByRichard Barbrook and Andy Cameron

’Not to lie about the future is impossible and one can lie about it at will’ - Naum Gabo

There is an emerging global orthodoxy concerning the relation between society, technology and politics. We have called this orthodoxy ‘the Californian Ideology’ in honour of the state where it originated. By naturalising and giving a technological proof to a libertarian political philosophy, and therefore foreclosing on alternative futures, the Californian Ideologues are able to assert that social and political debates about the future have now become meaningless.Â

The California Ideology is a mix of cybernetics, free market economics, and counter-culture libertarianism and is promulgated by magazines such as WIRED and MONDO 2000 and preached in the books of Stewart Brand, Kevin Kelly and others. The new faith P has been embraced by computer nerds, slacker students, 30-something capitalists, hip academics, futurist bureaucrats and even the President of the USA himself. As usual, Europeans have not been slow to copy the latest fashion from America. While a recent EU report recommended adopting the Californian free enterprise model to build the ’infobahn’, cutting-edge artists and academics have been championing the ’post-human’ philosophy developed by the West Coast’s Extropian cult. With no obvious opponents, the global dominance of the Californian ideology appears to be complete.

Californian Ideology

On superficial reading, the writings of the Californian ideologists are an amusing cocktail of Bay Area cultural wackiness and in-depth analysis of the latest developments in the hi-tech arts, entertainment and media industries. Their politics appear to be impeccably libertarian - they want information technologies to be used to create a new ‘Jeffersonian democracy’ in cyberspace in its certainties, the Californian ideology offers a fatalistic vision of the natural and inevitable triumph of the hi-tech free market.

Saint McLuhan

Back in the 60s, Marshall McLuhan preached that the power of big business and big government would be overthrown by the intrinsically empowering effects of new technology on individuals. The convergence of media, computing and telecommunications would inevitably result in an electronic direct democracy - the electronic agora - in which everyone would be able to express their opinions

without fear of censorship.Â

Encouraged by McLuhan’s predictions, West Coast radicals pioneered the use of new information technologies for the alternative press, community radio stations, home-brew computer clubs and video collectives.

Californian Ideology

During the ’70s and ’80s, many of the fundamental advances in personal computing and networking were made by people influenced by the technological optimism of the new left and the counter-culture. By the ’90s, some of these ex-hippies had even become owners and managers of high-tech corporations in their own right and the pioneering work of the community media activists has been largely recuperated by hi-tech commerce.Â

The Rise of the Virtual Class

Although companies in these sectors can mechanise and sub-contract much of their labour needs, they remain dependent on key people who can research and create original products, from software programs and computer chips to books and tv programmes. These skilled workers and entrepreneurs form the so-called ’virtual class’: ’...the techno-intelligentsia of cognitive scientists, engineers, computer scientists, video-game developers, and all the other communications specialists...’ (Kroker and Weinstein). Unable to subject them to the discipline of the assembly-line or replace them by machines, managers have organised such intellectual workers through fixed-term contracts. Like the ’labour aristocracy’ of the last century, core personnel in the media, computing and telecoms industries experience the rewards and insecurities of the marketplace. On the one hand, these hi-tech artisans not only tend to be well-paid, but also have considerable autonomy over their pace of work and place of employment. As a result, the cultural divide between the hippie and the organisation man has now become rather fuzzy. Yet, on the other hand, these workers are tied by the terms of have no guarantee continued employment. Lacking the free time of the hippies, work itself ho become the main route to self-fulfilment for much of the,virtual class’.

Because these core workers are both a privileged part of the labour force and heirs of the radical ideas of the community media activists, the Californian Ideology simultaneously reflects the disciplines of market economics and the freedoms of hippie artisanship. This bizarre hybrid is only made possible through a nearly universal belief in technological determinism. Ever since the ’60s, liberals -in the social sense of the word - have hoped that the new information technologies would realise their ideals. Responding to the challenge of the New Left, the New Right has resurrected an older form of liberalism: economic liberalism. In place of the collective freedom sought by the hippie radicals, they have championed the liberty of individuals within the marketplace. From the ‘70s onwards, Muffler, de Sola Pool and other gurus attempted to prove that the advent of hypermedia would paradoxically involve a return to the economic liberalism of the past. This ’retro-utopia echoed the predictions of Asimov, Heinlein and other macho sci-fi novelists whose future worlds were always filled with space traders, superslick salesmen, genius scientists, pirate captains and other rugged individualists. The path of technological progress leads back to the America of the Founding Fathers.

Agora or Exchange - Direct Democracy or Free Trade?

With McLuhan as its patron saint, the Californian ideology has emerged from this unexpected collision of right-wing neo-liberalism, counter- culture radicalism and technological determinism - a hybrid ideology with all its ambiguities and contradictions intact. These contradictions are most pronounced in the opposing visions of the future which it holds simultaneously.

On the one side, the anti-corporate purity of the New Left has been preserved by the advocates of the 'virtual community'. According to their guru, Howard Rheingold, the values of the counter-culture baby boomers will continue to shape the development of new information technologies.

Community activists will increasingly use hypermedia to replace corporate capitalism and big government with a hi-tech 'gift economy' in which information is freely exchanged between participants. In Rheingold's view, the 'virtual class' is still in the forefront of the struggle for social liberation. Despite the frenzied commercial and political involvement in building the 'information superhighway', direct democracy within the electronic agora will inevitably triumph over its corporate and bureaucratic enemies.

On the other hand, other West Coast ideologues have embraced the laissez faire ideology of their erstwhile conservative enemy. For example, Wired - the monthly bible of the 'virtual class' - has uncritically reproduced the views of Newt Gingrich , the extreme-right Republican leader of the House of Representatives, and the Tofflers, who are his close advisors. Ignoring their policies for welfare cutbacks, the magazine is instead mesmerised by their enthusiasm for the libertarian possibilities offered by new information technologies. Gingrich and the Tofflers claim that the convergence of media, computing and telecommunications will not create an electronic agora, but will instead lead to the apotheosis of the market, an electronic exchange within which everybody can become a free trader.

In this version of the Californian Ideology, each member of the 'virtual class' is promised the opportunity to become a successful hi-tech entrepreneur. Information technologies, so the argument goes, empower the individual, enhance personal freedom, and radically reduce the power of the nation-state. Existing social, political and legal power structures will wither away to be replaced by unfettered interactions between autonomous individuals and their software. These restyled McLuhanites vigorously argue that big government should stay off the backs of resourceful entrepreneurs who are the only people cool and courageous enough to take risks. Indeed, attempts to interfere with the emergent properties of technological and economic forces, particularly by the government, merely rebound on those who are foolish enough to defy the primary laws of nature. The free market is the sole mechanism capable of building the future and ensuring a full flowering of individual liberty within the electronic circuits of Jeffersonian cyberspace. As in Heinlein's and Asimov's sci-fi novels, the path forwards to the future seems to lead backwards to the past.

The Myth of the Free Market

Almost every major technological advance of the last two hundred years has taken place with the aid of large amounts of public money and under a good deal of government influence. The technologies of the computer and the Net were invented with the aid of massive state subsidies. For example, the first Difference Engine project received a British Government grant of Â£517,470 - a small fortune in 1834. From Colossus to EDVAC, from flight simulators to virtual reality, the development of-computing has depended at key moments on public research handouts or fat contracts with public

agencies. The IBM corporation built the first programmable digital computer only after it was requested to do so by the US Defense Department during the Korean War. The result of a lack of state intervention meant that Nazi Germany lost the opportunity to build the first electronic computer in the late ’30s when the Wehrmacht refused to fund Konrad Zuze, who had pioneered the use of binary code, stored programs and electronic logic gates.

One of the weirdest things about the Californian Ideology is that the West Coast itself is a product of massive state intervention. Government dollars were used to build the irrigation systems, high-ways, schools, universities and other infrastructural projects which make the good life possible. On top of these public subsidies, the West Coast hi-tech industrial complex has been feasting off the fattest pork barrel in history for decades. The US government has poured billions of tax dollars into buying planes, missiles, electronics and nuclear bombs from Californian companies. Americans have always had state planning, but they prefer to call it the defence budget.

All of this public funding has had an enormously beneficial - albeit unacknowledged and uncosted - effect on the subsequent development of Silicon Valley and other hi-tech industries. Entrepreneurs often have an inflated sense of their own ’creative act of will’ in developing new ideas and give little recognition to the contributions made by either the state or their own labour force. However, all technological progress is cumulative - it depends on the results of a collective historical process and must be counted, at least in part, as a collective achievement. Hence, as in every other industrialised country, American entrepreneurs have in fact relied on public money and state intervention to nurture and develop their industries. When Japanese companies threatened to take over the American microchip market, the libertarian computer capitalists of California had no ideological qualms about joining a state-sponsored cartel organised by the state to fight off the invaders from the East!Â

Masters and Slaves

Despite the central role played by public intervention in developing hypermedia, the Californian Ideology is a profoundly anti-statist dogma. The ascendancy of this dogma is a result of the failure of renewal in the USA during the late ’60s and early ’70s. Although the ideologues of California celebrate the libertarian individualism of the hippies, they never discuss the political or social demands of the counter-culture. Individual freedom is no longer to be achieved by rebelling against the system, but through submission to the natural laws of technological progress and the free market. In many cyberpunk novels and films, this asocial libertarianism is expressed by the central character of the lone individual fighting for survival within a virtual world of information.

In American folklore, the nation was built out of a wilderness by free-booting individuals - the trappers, cowboys, preachers, and settlers of the frontier. Yet this primary myth of the American republic ignores the contradiction at the heart of the American dream: that some individuals can prosper only through the suffering of others. The life of Thomas Jefferson - the man behind the ideal of ‘Jeffersonian democracy’ - clearly demonstrates the double nature of liberal individualism. The man who wrote the inspiring call for democracy and liberty in the American declaration of independence was at the same time one of the largest slave-owners in the country.

Despite emancipation and the civil rights movement, racial segregation still lies at the centre of American politics - especially in California. Behind the rhetoric of individual freedom lies the master's fear of the rebellious slave. In the recent elections for governor in California, the Republican candidate won through a vicious anti-immigrant campaign. Nationally, the triumph of Gingrich's neoliberals in the legislative elections was based on the mobilizations of "angry white males" against the supposed threat from black welfare scroungers, immigrants from Mexico and other uppity minorities.

The hi-tech industries are an integral part of this racist Republican coalition. However, the exclusively private and corporate construction of cyberspace can only promote the fragmentation of American society into antagonistic, racially-determined classes. Already 'redlined' by profit-hungry telcos, the inhabitants of poor inner city areas can be shut out of the new on-line services through lack of money. In contrast, yuppies and their children can play at being cyberpunks in a virtual world without having to meet any of their impoverished neighbours. Working for hi-tech and new media corporations, many members of the 'virtual class' would like to believe that new technology will somehow solve America's social, racial and economic problems without any sacrifices on their part. Alongside the ever-widening social divisions, another apartheid between the 'information-rich' and the 'information-poor' is being created. Yet calls for the telcos to be forced to provide universal access to the information superstructure for all citizens are denounced in Wired magazine as being inimical to progress. Whose progress?

The Dumb Waiter

As Hegel pointed out, the tragedy of the masters is that they cannot escape from dependence on their slaves. Rich white Californians need their darker-skinned fellow humans to work in their factories, pick their crops, look after their children and tend their gardens. Unable to surrender wealth and power, the white people of California can instead find spiritual solace in their worship of technology. If human slaves are ultimately unreliable, then mechanical ones will have to be invented. The search for the holy grail of Artificial Intelligence reveals this desire for the Golem - a strong and loyal slave whose skin is the colour of the earth and whose innards are made of sand. Techno-utopians imagine that it is possible to obtain slave-like labour from inanimate machines. Yet, although technology can store or amplify labour, it can never remove the necessity for humans to invent, build and maintain the machines in the first place. Slave labour cannot be obtained without somebody being enslaved. At his estate at Monticello, Jefferson invented many ingenious gadgets - including a 'dumb waiter' to mediate contact with his slaves. In the late twentieth century, it is not surprising that this liberal slave-owner is the hero of those who proclaim freedom while denying their brown-skinned fellow citizens those democratic rights said to be inalienable.

Foreclosing the Future

The prophets of the Californian Ideology argue that only the cybernetic flows and chaotic eddies of free markets and global communications will determine the future. Political debate therefore, is a waste of breath. As libertarians, they assert that the will of the people, mediated by democratic government, is a dangerous heresy which interferes with the natural and efficient freedom to accumulate property. As technological determinists, they believe that human social and emotional ties obstruct the efficient evolution of the machine. Abandoning democracy and social solidarity, the Californian Ideology dreams of a digital nirvana inhabited solely by liberal psychopaths.

There are Alternatives

Despite its claims to universality, the Californian ideology was developed by a group of people living within one specific country following a particular choice of socio-economic and technological development. Their eclectic blend of conservative economics and hippie libertarianism reflects the history of the West Coast - and not the inevitable future of the rest of the world. The hi-tech ideologues proclaim that there is only one road forward. Yet, in reality, debate has never been more possible or more necessary. The Californian model is only one among many.

Within the European Union, the recent history of France provides practical proof that it is possible to use state intervention alongside market competition to nurture new technologies and to ensure their benefits are diffused among the population as a whole.Â

Following the victory of the Jacobins over their liberal opponents in 1792, the democratic republic in France became the embodiment of the 'general will'. As such, the state attempted to represent the interests of all citizens, rather than just protect the rights of individual property-owners. The French revolution went beyond liberalism to democracy. Emboldened by this popular legitimacy, the government was able to influence industrial development.

For instance, the MINITEL network built up its critical mass of users through the nationalised telco giving away free terminals. Once the market had been created, commercial and community providers were then able to find enough customers to thrive. Learning from the French experience, it would seem obvious that European and national bodies should exercise more precisely targeted regulatory control, investment, and state direction over the development of hypermedia, rather than less.

The lesson of MINITEL is that hypermedia within Europe should be developed as a hybrid of state intervention, capitalist entrepreneurship and d.i.y. culture. No doubt the 'infobahn' will create a mass market for private companies to sell existing information commodities - films, tv programmes, music and books, across the Net. Once people can distribute as well as receive hypermedia, a flourishing of community media, niche markets and special interest groups will emerge. However, for all this to happen the state must play an active part. In order to realise the interests of all citizens, the 'general will' must be realised, at least partially, through public institutions.

The Californian Ideology rejects notions of community and of social progress and seeks to chain humanity to the rocks of economic and technological fatalism. Once upon a time, west coast hippies played a key role in creating our contemporary vision of social liberation. As a consequence, feminism, drug culture, gay liberation and ethnic identity have, since the 1960s, ceased to be marginal issues. Ironically, it is now California which has become the centre of the ideology which denies the relevance of these new social subjects.

It is now necessary for us to assert our own future - if not in circumstances of our own choosing. After twenty years, we need to reject once and forever the loss of nerve expressed by post-modernism. We can do more than 'play with the pieces' created by avant-gardes of the past.

We need to debate what kind of hypermedia suit our vision of society - how we create the interactive products and on-line services we want to use, the kind of computers we like and the software we find most useful. We need to find ways to think socially and politically about the machines we develop. While learning from the can-do attitude of the Californian individualists, we also must recognise that the potentiality of hypermedia can never solely be realised through market forces. We need an economy which can unleash the creative powers of hi-tech artisans. Only then can we fully grasp the Promethean opportunities of hypermedia as humanity moves into the next stage of modernity.

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http://www.hrc.wmin.ac.uk/

"BUOY" A Trans-European Project

ByHelen Cadwallader on Stefan Gec

During May and June of 1996, a metal buoy, designed to function as a temporary marker, weighing 5 tonnes and measuring 16ft by 10ft, will be exhibited at the Historic Quays in Hartlepool, a city and port on the north-eastern coast of England, as part of its first Maritime Festival. The buoy will then be shipped to at least ten locations off the north European coastline over the next five years. It will function as a navigational aid, marking shipping lanes and signalling areas of either danger or safety. A World Wide Web site has been set up to account for this unusual exhibit and its subsequent function. This will detail all information regarding the buoy, including the schedules, Admiralty charts and maps of its anchor points - information issued by the International Association of Light-House Authorities (IALA). The IALA is the professional institution which is responsible, amongst other things, for maintaining and monitoring "The IALA Maritime Buoyage System", two systems of maritime signage and buoys. These systems of buoyage are made up of five different types of marks designed to assist maritime navigation. They range from ’lateral’ marks used for well-defined channels, ’cardinal’ marks used to indicate navigable waters, ’isolated danger’ marks to indicate dangers of ’limited’ size, ‘safe water’ marks and ’special’ marks which are designed to ’indicate an area or feature referred to in nautical documents’. These ’special’ marks are permanent anchor points, but their signs, i.e. buoys, may change according to the information being conveyed. This information is listed by the IALA as referring to either ’Ocean Data Acquisition Systems marks, traffic separation marks, spoil ground marks, military exercise zone marks or recreation zone marks’. Coloured yellow, these buoys are temporary installations reflecting the ephemeral nature of the information they are designed to denote. In this instance, the buoy on exhibition falls into this latter category. It will be transported to a range of sites and thereby represent a range of different types of information.

Â BUOY - Trans-European Project

Image: Steve Collins, *Bells at the Foundry*, Blackett and Hutton Foundry Guisborough, 1990

In Alston, Cumbria, the north-west of England, during the midsummer of 1991, a falcon took flight and soared into the overcast sky, perching momentarily on a branch high in a nearby tree only to swoop down and resume its position on the out-stretched arm of the falconer. Attached to its feet were a tiny pair of half-inch diameter metal bells.

In Newcastle upon Tyne, the north east of England, during the late summer of 1990, eight metal bells measuring 3ft by 2ft hung suspended from a wooden pontoon at the base of the High Level Bridge.

These disparate objects and events are a series of three, a trilogy of artworks titled "Buoy" (1995 - 1999), "Lure" (1991) and "Trace Elements" (1990) respectively, which are in turn related by three primary sources: -

Firstly, all works have been conceived by the artist Stefan Gec.

Secondly, the metal incorporated into the material make-up of all of these pieces was derived from the metal of eight decommissioned U.S.S.R. submarines.

Thirdly, all these pieces have been informed by an event which has shaped the personal history and life of the artist Stefan Gec.

BUOY Trans-European Project

He explains:

"In 1942 my father, a Ukrainian, was forced to leave his home and family to work as a labourer in Austria after the advancing German army had reached his village. When the war ended,'the political situation within the Soviet Union and the Cold War made it impossible for him to return. All communication with his family came to an end."

Stefan Gec's trilogy is art as process through time and space, as history, as narrative, as literally story-telling, as geography, as community, as identity tapping into 'Art and Life'; the conceptual threads of which run through both the themes and material operation of the pieces themselves.

The story of the metal from the former Soviet submarines is about transformation and displacement through time and space. The metal has been variously forged and reassembled to undertake a variety of functions and a range of services whilst being physically transposed across geographic locations and national boundaries. From sea to river to land and air and now sea again, the metal in "Trace Elements", "Lure" and now "Buoy" has occupied, will continue to occupy time and thereby ultimately construct its own history.

In its initial form as a submarine, the success of this technology of war resided in physical concealment. Through concealment, it maximised its function; to physically destroy the opposition and thus protect or expand economic, political or geographic boundaries. The primary function of a sea-bell is as a technology of maritime guidance. Usually located amongst the rocks at the base of light-houses, it serves to warn vessels both beneath and above water of potential danger. It is in this form of the sea-bell that the smelted-down submarine metal moved from sea to tidal river, to be both concealed and revealed through the ebb and flow of the tide in "Trace Elements" - the first part of the trilogy. The metal was then re-fashioned again as the bells in "Lure". In this form, albeit radically scaled down, it functioned as an auditory signal which denoted the position of the falcon in flight and so occupied the completely different elements of air and land. But "Lure" taps into a hidden use of the landscape in which the event was staged, namely that of low-flying military aircraft practice. The flight of the falcon, a predator, echoes and mirrors the movement and function of airborne technologies of war and destruction. Now as "Buoy", the metal will return to the sea, but refashioned to serve as a navigational point and so as a suppository of navigational information. From water to air and water, to air and land, and back to water, the metal undergoes a completely balanced cycle through the elements.

Image: Rich Mahoney, *Decommissioned U.S.S.R submarines*, Blythe Shipyards Northumberland, 1990

These changing functions through time foreground the second story written into the life of the metal, that of geographical displacement. The eight decommissioned U.S.S.R. submarines, the source of the metal, originated from the ports of Gdansk, Riga, Leningrad, Murmansk, Archangel'ski, Salekhard, Sevastopol and Odessa. The journey of the metal can be traced from these far-flung Soviet ports to the north east of England in the form of "Trace Elements" (Newcastle upon Tyne). From here to Cumbria in the north west in "Lure", and back again to the east of England (Hartlepool) in "Buoy" and the ten subsequent maritime anchor-points dotted along the northern coastline of mainland Europe. Over a period of five years the metal is taken on a journey to be floated in deep-waters off the coasts of Iceland, north west Scotland (Glasgow), eastern Ireland (Dublin), eastern England (Hull), Denmark (Copenhagen), Norway (Oslo), Sweden (Stockholm), Latvia (Riga), Finland (Helsinki) and Russia (St. Petersberg) to terminate in Murmansk. Back to a macro-view, this journey maps out the movement of a metal originating in the former U.S.S.R. to the west and back again to one of its ports of origin at Murmansk.

"Trace Elements", "Lure", and now "Buoy" mark not only changes in the function of the metal, but also its transition from the decommissioned submarines of 'Life' into 'Art'. Or rather its occupation of a peculiar mid-way point where it functions as poetic symbol and fulfils a utilitarian function. It is in this curious state of flux between the worlds of 'Art' and 'Life', occupying both time and space, that the trilogy will weave its own web of narratives becoming part, not only of public culture, but lodging itself in the memories of all who encounter it.

Throughout the trilogy, the transformed and displaced metal functions as a poetic metaphor for the enforced displacement Gec's father experienced as a result of the Second World War. The sub-marines, from which the metal originated, were part of the U.S.S.R. fleet. This was a military provision expanded during the Second World War and through the continuation of hostile East/West relations of the Cold War. The collapse of the Cold War and with it the demise of national and geographical boundaries resulted in the fall of the Soviet Union during 1989/90. The beginnings of a New Europe has witnessed a continuing state of flux and transition. From the Soviet Union to the West and back again to a newly constituted political and economic, but as yet still unstable, state of Russia, the journey of the metal partially mirrors the journey experienced by Gec's father. But whilst the metal will return back to one of its ports of origin, albeit in radically altered form, for Gec's father, the desire to return home will remain just that. This story of displacement is itself one of the dominant narratives characterising twentieth century Europe, tracing as it does the separation from community and concomitant sense of identity. The constantly changing function of the metal parallels the unsettling experience of displacement in terms of identity. Like the metal, the changes brought about through displacement become permanent. Unlike the metal it is impossible to physically return. 'Home' becomes someplace else that isn't accessible. The grand narratives of World History are made evident through the personal narratives of family history.

Gec identifies the significance of this event to him as an artist, "As a child I was told stories about my father's experiences and these have subsequently filtered through into my work where I have attempted to explore the personal and wider implications contained within this history."Â

The effects of World History are demonstrated, not only through shifting geographical and political boundaries, but also through the vagaries of the economic market-place. Again this adds a further layer of meaning to the trilogy. Gec observes that the collapse of the Soviet Union resulted in a Russia that was desperate for hard currency, hence the selling off of the former U.S.S.R. submarines for scrap. ’Battleship Wharf’ - the name for the scrap ship-yard at Blyth - has been the centre for breaking up ships and submarines for the past hundred years. From the First World War, both military and non-military ships have been broken up for scrapmetal which is then recycled for further industrial or military use. This particular industry has been heavily dependent on the economics and technologies of warfare. The original place of exhibition of "Buoy", Hartlepool, draws upon and reinforces the strong historic trading links this port once had with the Baltic states. Hartlepool is representative of the heavy industries which once supported the economy of North East England and made this region the focus for ship-building and one of the primary trading routes between Britain and the mainland continent, particularly the Baltic states. It is ironic that the scrapping of ships is the only aspect of this industry which remains. Â

The Grand Narratives of World History are designed to ignore the realities of change as these are experienced on the edges; that is within the local, the marginalised, grassroot communities. For Gec, the journey of the metal in all its forms around the north-eastern edges of Britain and the northern continents, is designed to quietly draw attention to these changes. The demise of the North East of England as an area of international trading activity and heavy industrial manufacturing is evidence of one of the most significant recent shifts. A shift due partially to economic demand, but also to Government policy support shifting from a manufacturing base to the service-based industries, in particular information technology.

BUOY Trans-European Project

Image: Stefan Gec, *Falcon*

Again, Gec draws heavily upon this latest narrative of contemporary life which both informs and constitutes "Buoy" in the establishment of a WWW site. This extension to "Buoy" parallels the operation of the maritime buoy. The information in this site will change and accumulate each time it assumes a new position along the north European coastlines. Other forms of information retrieval are currently being explored by Gec in association with the art organisations supporting the project. They include using a satellite system, which will involve the buoy being fitted with a camera designed to document weather conditions, and recording all the conditions of the environment in which the buoy is located at any time of day. As the artist explains, the aim of re-presenting and (in this instance) retrieving and so making accessible any form of information through the WWW ultimately "... alters your relationship to the buoy itself. As the buoy becomes like a satellite itself, endlessly recording information which can be accessed by anyone, in a system which privileges the endless proliferation and dispersal of information."

Whilst the material object buoy has been floated in real seas subject to the vagaries of the elements, so too the conceptual project of "Buoy" has been floated in the endless flow of information found on the net. But whilst the net enables the democratisation of access to information (for those with access to the hardware), particularly for specialist interest groups, information technology has yet to make a positive impact for the many communities left behind in this latest revolution.

It is one such community, at Murmansk, where the journey of the buoy in "Buoy" will terminate and be placed on permanent exhibition. Pushed to the geographical edges of both Europe and Russia, Murmansk is not only physically removed from the centre of current events but is also frozen in a time before I perestroika'. By siting "Buoy" here, the cycle of the metal is completed. Its story and transformation throughout the trilogy has spun its own narratives back out into the material world to make its own history and construct its own meaning. As Gec puts it, "'Buoy' will return loaded with this history and debris collected from other places and all the other stories accrued through time and in different places, to a place little changed from when it first left as a submarine."

Â© Helen Cadwallader

The ideas and views expressed here are those of Stefan Gec and Helen CadawalladerÂ

Stefan Gec's first catalogue "Trace Elements" is available from Locus+. For further details e-mail: <locusplus AT newart.demon.co.uk>, or phone Jon Bewley or Simon Herbert.

For information on "Buoy" contact The Laboratory at the Ruskin School of Drawing and Fine Art, Oxford UniversityÂ

This project is being developed in collaboration with the following arts organisations:

The Laboratory at the Ruskin School of Drawing and Fine Art, Oxford Locus+, Newcastle upon Tyne, Ormeau Baths Gallery, Belfast

WARNING: This Computer Has Multiple Personality Disorder

BySimon Pope and Matthew Fuller

IntrODuctionÂ

This paper comes largely out of our experience in the production of the hyperactive electronic zine I/O/D. So firstly then, we should explain what I/O/D might be. Technically it is a Macromedia Director Projector with associated files that is small enough to be compressed onto one High Density disk.

That we choose the size to be restricted by the limitations of the most mundane and cheapest storage device is important, because it means that I/O/D is very easy for people to copy for their friends - or surreptitiously leave on the computers of their enemies. It also means that because of its relatively small size it is quite feasible for it to be made available over computer networks such as the internet and on Bulletin Board Services. Distribution over the networks is in fact the major way in which I/O/D gets moved around. It is also worth noting that within the internet, where degrees of access are stratified, we make I/O/D available via a variety of protocols: ftp; gopher; and world wide web, in order to ensure that as many people as possible have the option of downloading it. Alongside the sites that we maintain a direct connection to we are encouraged to find that I/O/D is also being independently distributed by people we have had no contact with.

Additionally, we should state that I/O/D is not on the nets in order to advertise anything but itself. It is specifically an anti-elitist contribution to the development of the nets as a ’gift economy’. Consequently, it is also a way of producing some effects whilst avoiding getting too enmeshed with the humourless circus of reputation and career:making that the techno-theory genre is fast becoming.Â

I/O/D is put together by a production team of three, based in Cardiff and London and also aided and abetted on the nets by Calum Selkirk, based in Columbus, Ohio - a relationship obviously made possible through computer mediated communications. Individuals or groups whose work we feel an affinity with either contribute independently or are asked to submit some work. In most cases these will be people who do not have specific knowledge of multimedia design but whose activity as text, graphics or sound-makers correlates with some of the dynamics we are playing with in the construction of I/O/D.

Before we return to a more detailed discussion of I/O/D though, we need to situate it within an episodic context of some ongoing antagonisms around the nature of a technologised physicality.

Inhuman Potential

The mind as an interface is no longer viable.

McLuhan’s assumption that the media-net would become merely an extension of the human nervous system with the humanoid core remaining its ’same old self has provided a touch stone for both the liberation rhetoric of writers such as Howard Rheingold and for tele-vangelists seeking the redemption of the free market through the virtual corporation: a model of business as the management of flows that is at once homely and sublime - yet not of course lacking in sadistic perks.

Envision, if you can stomach it, Nicholas Negroponte, graced by smart cufflinks "communicating with each other via low orbiting satellites," each with, "more computing power than your present PC". The human-in-control becomes a neurological disaster area. Can any amount of attention from ambient computers dispensing technological anaesthetics stifle the screaming pain of communication: Rwanda on line three.Â

Warning, This Computer has Multiple Personality Disorder

Surgical Strike Cartesianism

Hans Moravec gathers together all the kilobytes of his consciousness and downloads into your smart cufflinks, announcing: "Body-identity assumes that a person is defined by the stuff of which a human body is made. Only by maintaining continuity of body stuff can we preserve an individual person. Pattern- identity, conversely, defines the essence of a person, say myself, as the pattern and the process going on in my head and body, not the machinery supporting that process. If the process is preserved, I am preserved. The rest is jelly."2

Imagine how good this would sound to Walt Disney stuck in a freezer somewhere in California.

Disembodied intelligence of this kind is always a con. If these glowing elite minds migrated into data-space we can be sure that at some point they would have to recognise a co-dependency with the material world, one composed primarily of minerals, electromagnetic sensation perhaps, and a new kind of physicality would emerge - possibly something akin to what Ballard imagines in his repeated metaphor of the supercession of ’civilisation’ by the crystalline. The mind always emerges from the matter.

The entropic, dirty, troublesome flesh that is sloughed off in these fantasies of strongly masculine essentialism is implicitly interwoven with the dynamics of self-processing cognition and intentionality that are relegated to a substance called "mind" - as Kevin Kelly points out in ’Out of Control’:Â

> We know that our eyes are more brain than camera. An eyeball has as much processing power as a supercomputer. Much of our visual perception happens in the thin retina where light first strikes us, long before the central brain gets to consider the scene. Our spinal cord is not merely a trunk line transmitting phone calls from the brain. It too thinks. We are a lot closer to the truth when we point to our heart and not to our head as the centre of behaviours. Our emotions swim in a soup of hormones and peptides that percolate through our whole body.3

Moravec’s idea of the self as pattern repetition is echoed rather differently by another cybernetician, Norbert Wiener, "We are but whirlpools in a river of ever flowing water. We are not stuff that abides, but patterns that perpetuate themselves"4

And out of this river, perpetually muddied with peptides, hormones, immune response systems, viruses, pesticides, sugars, and illicit substances emerges the cognitive body.

However, lest this should materialise as a ’holistic essentialism’ that swaps meat-fearing disembodiment for a dread of the machinic body we should move on to acknowledge that homo Sapiens evolved as a result of a deep, co-evolutionary intimacy with the ’inhuman’, with tools, with the machinic. At the very core of our development as a species is the gradual bootstrapping of the brain, the supposed Slot In Memory Module, which according to neodarwinian evolutionary theory is itself, the result of a possibility-space opened up through the development of the opposable thumb. A mutation in one part of the body, with far-reaching side effects on all others, that opens it up to a combinatorially explosive array of relations with other forms of matter.

Thus, we are always already deeply post-human.

That information processing technology is being touted as the ’next opposable thumb’, generating the possibility-spaces that we are currently living through, does not of course lead us in an automatic loop back to a glorious disembodied life on the outer reaches of some computer’s sub-directory. A survey of most contemporary multimedia work however, might convince us otherwise.

From Automated Telling Machines, through the freebie CDs on the-covers of computer magazines; corporate presentation material and "high-end" games such as Myst, contemporary multimedia constitutes presence in relationship to this post-human body as a process of exclusion.

What we mean by this is not that your much-prized beigeware friend is some kind of digital Schengen Area that cruelly excludes your disruptive meat, or that we need to start picketing the offices of Apple for myoelectric implants to be packaged with every CPU in place of a mouse, keyboard and monitor, but that the models of presence that do come bundled (but tellingly unseen) with most current multimedia incorporate highly stratified and tightly channelled notions as to what this relationship

might be.Â

Computers are embodied culture, hardwired epistemology, and in the area we are focusing on two parallel sequences are occurring. They are implicitly related but whilst twisting in and out of each other, operate in different ways.

The bureaucratisation of the body into organs and the privileging of the eye in multimedia is one.

The renewal of encyclopaedism is the other.

The bureaucratisation of the body into organs

Much has been made of the notion of the eye as primary organ, (and primary also in the genitive sense) around which bodies (literally), organise. From Dziega Vertov's cruise missile approach to Berlin, to anti-sex feminism's abhorrence of pornography the eye is seen as a unifying and explanatory media in its own right. Perhaps a certain apotheosis of the privileging of the eye is reached in the writings of Guy Debord 6 where he simultaneously assigns an immense life expropriating power to "The Order of Appearances" whilst simultaneously positing a different type of image, the printed word, (of his writing of course) as the catalyst for the destruction of this world of relations mediated by images.

Sight is the most theorised, most contested over, yet in some ways least contested of the bureaucratised senses.

Within multimedia, the desire to transfer information without transforming its integrity has remained strong, and the senses have been prioritised and valorised in order that this system should work efficiently. With the eye situated as the locus of authority, assurance is passed to the other senses, which are called upon to further validate the evidence presented before them. Following the sales mantra "image, text, sound, video", graphical interfaces reinforce this rigorous separation of the senses into a hierarchy of feedback devices. In other words, as you will see when using anything from Grolier's Multimedia Encyclopaedia to the Arts Council's Anti ROM interaction is fed first and foremost through the circuits of sight.

Within the sight-machine of contemporary multimedia then, the mind has to be re-thought or re-programmed as a simple processor of Information Graphics. Once recognised and regulated, sense can be made and order imposed on data; it can be subjected to the strictures of simple structuralisms where sign = signifier and all's well with the world. Under the heading comes the sub-heading, under which comes the sub-sub-heading, until all complexity can be understood at a glance from somewhere outside the filing cabinet...

Through this representation stacking, it is hoped that a mind-melding transparency can be achieved: interfacing the disembodied mind and disinterested data. The mind is immersed into the encyclopaedic data-space, as charmingly freed from visceral distractions as a bottle of deodorant. That the eye sloughing off the cankerous meat in an attempt to fuse mind and data, one electronic pulse with another, chooses to confirm its conferred status shouldn't be a surprise. The eye, released from constraint, with a mind of its own, "can take any position it wishes".Â

What is remarkable is that this pursuit of the monadic eye realises itself in most contemporary multimedia as nothing much more than a subset of behaviourism: with users barking, whining, and slathering at the interminable (once in a lifetime) chance, to point and click their path to dog-food heaven.Â

The Renewal of Encyclopedism: Pavlov's Menu

At the centre lies the desire for the enforcement of meaning. The encyclopaedic organisation of data preserves a point of privilege from where the eye can frame the objects of its desire. There are no obstacles in this space, only straight paths cleared to open unimpeded vistas. Within this space, intention steps toward the user, to be understood without the hindrance of cumbersome literary convention. All can be conveyed from within the universal iconic language, a visual, pre-linguistic key, clearly carrying reference to the ciphered world. This virtual architectural space has been constructed by an unseen author, whose intention is usually to impose a closure to a narrative, to provide the goal to be reached by means of one of many approaches, the reader/user/participant/player, (choose according to theoretical preference) can wander, but must not stray from the intended thoroughfares.

Warning, This Computer has Multiple Personality Disorder

From any point it is possible to look back along your path, holding on to Ariadne's thread, taking solace in the fact that all you have seen is recorded, marked, referenced and ultimately retraceable.Â

As an aside, the theoretically critical academy has in parts too been enthused by the possibility of hypertext under the rubric of the Renewal of Encyclopaedism. Through the would be Grandpappy of Hypertext Studies, George Landow,7 we are already seeing a drive to standardise linking protocols and the types of connection that can be made from text to text, the centre is already attempting to ossify meaning production into a regulated and standardised practice.

Don't worry, be happy - everything is under Control.

Rather then, than urge multimedia as a potential grounds for the renewal of spectatorship, representation and simulation, terms borrowed most closely from cinema and devolving power to the primal eye, or to engage in the Renewal of Encyclopaedism's drive to suburbanise multimedia, we are perhaps more interested in developing something that is synthetic. Specifically: a process of playing with process.Â

material processingÂ

> Leroi Jones (aka Amiri Baraka) once made the comment that what black people needed was a typewriter that responded not only to the hand but to gestures. That way, said Jones, Black people's full involvement in their lived space could be shown and not the pale white version which he claimed writing alone gave.8

We would like to suggest that this comment has resonance beyond the important and suggestive point that Baraka makes here. Configurations of flesh that have been disarticulated, that are The Unspeakable, are particularly attractive to us. With I/0/D we are in part attempting to articulate some of those configurations that have been erased from the multimedia vocabulary.

However, with a nod to Anti-Oedipus, and as a concession to anyone who has had the fucked up experience of using I/O/D, we must give a body-swerve to some of the essentialism that Baraka's statement avers and note that "Desiring-machines only work when they break down."9Â

In disrupting notions of a ’transparent’ interface, and in investigating the possibilities of physicality in multimedia we are not therefore proposing to formulate any new paradigm of multimedial correctness. Nor do we find as with any amount of "artists" that merely scattering computers, camcorders, movement sensors and monitors around a gallery in a vague utopian gesture towards interactivity deserves any response but stolen equipment. We propose neither a new disciplinary regime nor an abstract vacant "creativity".

If meaning-construction always takes place at the margins of a system - and meaning-enforcement at the centre - then computer networks, where margin is folded in upon margin, in an economy of fecund, yet excremental exchange are currently a useful place to find oneself. In part it is this sense of margin rippling into margin that I/O/D as a border zone process attempts to play with.

What has been marginalised as incidental in behaviourist multimedia: the flitting of a user’s hands over the keyboard, the twitching of the mouse, repetitive or arrhythmic events, noise, confusion... accretes into a secret history of makeshift, unimagined conjunctions. I/O/D then is an intensely hap-tic space. In issue two for instance, the arrow-head cursor is largely abandoned and replaced both by position indicating sound and by the springing into life of the sprite that it would previously have been needed to animate. Within the boundaries dictated by the hardware of an average Macintosh computer we are coaxing out what has been disarticulated: different types of mouse movement; exaggerated clicking routines; the slashing and burning of Macintosh Operating System norms; larger than screen interfaces; repetitive strain injury; sloppy directories; a physicality of multimedia that correlates with what Ronald Sukenick has termed "fertile nonsense"; the feeding back of an action in one sense into another to produce a cross-wiring synaestahesia...

And it is perhaps as synaesthetics, the neurological disordering of smart-cufflinked control that within the abstract machine what we have here reviled - text and image "as truth", the renewals of spectatorship and encyclopaedism, the privileging of the eye, - will loose themselves as the prime loci of authority to be superseded by pattern finding and dynamic engagements with material processing. A dynamic that at once both infests bodies and that actually opens itself up to positively engaging with a bodily contamination that has always been operative, but bubbling away in the background.

[1] Nicholas Negroponte, *Being Digital*, Hodder and Staughton, London, 1995

[2] Hans Moravec, *Mind Children: the Future of Robot and Human Intelligence*, (Cambridge, MA: Harvard University Press, 1988).

[3] Kevin Kelly, ’Out of Control’, 4th Estate, London, 1994

[4] Norbert Wiener, ’The Human Use of Human Beings, cybernetics and society’, Free Association Books, London, 1989

[5] Dziega Vertov, *Man With a Movie Camera* (Film)

[6] Guy Debord, *The Society of the Spectacle*, Detroit, Black and Red, 1977

[7] George Landow, Relationally Encoded Links 333; Rhetoric of Hypermedia 83.

[8] V*IRTUAL ORPHICALITY:Telepathy, Virtuality and Encysted Sense Ratios*

Robert Cheatham, perforations

[9] Gilles Deleuze and Felix Guattari, *Anti-Oedipus*, Athlone, London, 1984

10In conversation. But see Doggy Bag, Black Ice Books, Boulder, 1994

404 URL not found due to extreme sassyness

BySimon Worthington

It is this knowledge of FRUITY CHAT that the hyper media research centre is taking up, researching and developing tools and programmes for Networks (at present the internet), for people to use and collaborate with.....

H R C
Hyper Media
Research Centre

Web Weavers With style

Information combined with the word Technology gives us Information technology, Computer combined with Graphics gives you computer graphics and Sassy combined with Digital gives you the ’HRC’, Hypermedia Research Centre of course.

Digital media have, in many ways, taken the world by surprise. The word technology might never be found in a printed paper dictionary again, its meaning slipping, a chimera. Technology, it can not

be overstated, is not new, we are technology *technne* from our earliest evolutionary gene kips. but the digital technologies now at our command certainly are the ’Neu’. To predict the future of these digital technologies from our present transitionary position would definitely be a mistake, but one can expound the current acquired possibilities, and ponder its fruits.

In the few decades that the Internet has been around, from its prosaic beginnings as the military ARPANET, the academics and phreaks who inhabited this version of cyberspace soon started using it to their own recreational ends, exacting that inevitable end of all great technologies: CHAT. This is not the present form of CHAT as proposed by BT (British Telecom), the one to one communication, but an unfamiliar and almost alien presence appearance of CHAT. Fruity chat, as I like to call it, is more fertile and open and is part of what lies at the heart of the excitement of the INTERNET. In essence fruity chat, as these early wildchilds of the internet discovered is the availability of information and open collaboration, many minds it many places finding one another t(work on common interests.Â

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It is this knowledge of FRUITY CHAT that the Hypermedia Research Centre is taking up, researching and developing tools and programmes for Networks (at present the internet)that people can use to collaborate with. An important model of working that has been taken or board by HRC from the INTERNET is that of the ’Open Framework’, where projects are not closed in by commercial restraints of non-disclosure agreements and the like, and quite the opposite is in fact true. In this model information/ project are seen as thriving from engaging and reciprocating with as many people who wish to take part in them. The benefits of this ’Open Model’ of working have their benefits for the

individual and the project. Software like Mosaic which has developed into the present day Netscape has arisen from this Open Framework'. And hypertext, which is at the basis of software like Netscape, where the context and the content are imbedded in the document. This hypertext system makes up the intrinsic nature of the internet, connecting thousands of servers, millions of documents to create a space with no centre -only links.

HRC, in its creative drive to expound the use of hypertext, have come up with some of the most stunningly designed and conceived internet PLACES to utilise hypertext in a visual way. As with the web site for the group 'Future Sound of London' FSOL , designed in part by Jeremy Quinn, who is one of the driving forces behind HRC. At the FSOL web site [http:// web address], a myriad of audio, photo-visual, 3D renderings have been fractured and contradictorily fused via 'hypermedia'. The site confounds your expectations of multimedia and information navigation and, most importantly, shows the way to an emerging visual artistic vocabulary of 'hypertext'.

As you move through the FSOL web site, your pedestrian channel hopping instincts are confronted, not knowing what an image will throw at you as your cursor habitually clicks across its luminescent surface, encountering anything from a bubbling 808 bleep to one of buggy-G's forlorn alien blooms.

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Within the FSOL site, the links that are present do not just take you to a relevant piece of information or more detailed images, rather they are intrinsic to he makeup of the site and are part of a woven matrix that makes the site's creation of an visual, audio and hypermedia entity possible. What that entity is you will only know on your FSOnline is also brilliantly engineered to cope with the available bandwidth of the usual internet user, i.e. the site downloads in an acceptable time frame which is a very important consideration for all us low end users out there.

Throughout the work of the HRC this is an important consideration. To make and enable tools and facilities that live up to the sometimes unrealised ethic of freedom and egality that is integral to network communications. The aims of the HRC are clearly set out on their web site, "to maximise its (the web) potential for social, artistic and technological creativity". In furthering these aims the HRC have adopted a stance that has found its place in the 90s, one of working with and not in opposition to mainstream culture.

Jay's joint, another HRC CHAT inspired internet place, takes the inspiration of CHAT more literally by making CHAT zones! These chat zones are focused on specific articles that appear in the HRC web site and other printed publications, and thus build virtual social spaces where people can download and upload text, audio and video, or hang out, chat and exchange ideas with one another.

To use the phrase coined by corp™ magazine , HRC are "Corp-lite", performing the cultural innovation that no Corp-can-do; an agile combination of academics, designers and artists developing innovative soft tools and bringing a synthesised visual design to Hypermedia.

Remembering that it is the CHAT that is important as I look forward to the next emergences from the HRC, it must not be forgotten who started this Hyper-Chat, the 'Computer Scientists' who have created the CHAT tools -and not necessarily visually embellished Chat space - as they were, and are, in it for kicks.

Angel, Virus: Cyberspace Breakdown(s)

BySuhail Malik

Universally declared as a massive transfiguration in communication, in our current, early, version - cyberspace fulfils many of the dreams and ambitions we have had about reaching through to each other - communicating - without either central organising powers or the distances and separations such powers rely on: for example, locality, nationality, country, time delays, and finances ("it's the cost of a local call"). Communicating perhaps without the distinctions, differences and difficulties of the gender, sexuality and race each of us necessarily has to have. Communicating, that is, without all the barriers and disruptions that get in the way of a truly global and universal communication. And this is partly because in the net we need not appear as or where we are. In cyberspace, it is said, we can be what we would like to be: human, perhaps - actually, virtually - for the first time.

This is the virtual community - of communicators. It is a community of angels (from the Greek aggelos: 'messenger'). And what it takes for granted from the start, what remains unquestionable for this community, is that such communication - an angelic conversation - is possible in the first place. But that this is impossible, and that communication can never happen without poisoning communication itself, becomes manifest with the infection of cyberspace - and perhaps then of the human too - by what today are called viruses.

What's new about cyberspace will happen in the haunting of cyberspace - by its contagions. What's new about communication will happen between angels and viruses.

The following article is the second part of an extended piece entitled 'Angel, Virus', the first part of which appeared in the summer issue of Mute as "Angelotechnology".Â

***

'You know,' said the Finn, ... 'that's some weird shit, out there...' He slowly shook his narrow, strangely elongated head. 'Didn't used to be this way.' He looked at Lucas. 'You people know, don't you? [...]

'He knows. Knows it's not the same ... Hasn't been, not for a long time. I been in the trade forever. Way back. Before the war, before there was any matrix, or anyway before people knew there was one. [...] There were cowboys ever since there were computers. They built the first computers to crack German ice, right? Codebreakers. So there was ice before computers...

....'Lucas knows, yeah. The last seven, eight years, there's been funny stuff out there, out on the console cowboy circuit. The new jockeys, they make deals with things, don't they, Lucas? 'Yeah, you bet I know; they still need the hard and the soft, and they still got to be faster than snakes on ice, but all of 'em, the ones who really know how to cut it, they got allies, don't they, Lucas?' [...]

’Thrones and dominions,’ the Finn said, obscurely. ’Yeah, there’s things out there. Ghosts, voices. Why not? Oceans had mermaids, all that shit, and we had a sea of silicon, see? Sure, it’s just a tailored hallucination we all agreed to have, cyberspace, but anybody who jacks in knows, fuckin’ knows it’s a whole universe . And every year it gets a little more crowded...

(CZ 169-70)

From where did they come, these ’things’ and ’voices’, if God is dead and heaven is another name for its own obsolescence? How did they happen? There are some technoscientific, some perfectly rational, explanations of their origin:

’What a load of shit. Things made a lot more sense before you people started screwing around with them.’

‘We didn’t bring them here, Jammer,’ she said. ’They were just there, and they found us because we understood them!’

‘Same load of shit,’ Jammer said, wearily. ‘Whatever they are, wherever they came from, they just shaped themselves to what a bunch of crazed spades wanted to see. You follow me? There’s no way in hell there’d be anything out there that you had to talk to in fucking bush Haitian! You and your voodoo cult, they just saw that and they saw a set-up, [...] and Beauvoir and Lucas and the rest, they’re businessmen first. And these Goddam things know how to make deals! It’s a natural! [...] You know, hon, it could just be that somebody very big, with a lot of muscle on the grid, they’re just taking you for a ride. Projecting those things, all that shit ... And you know it’s possible, don’t you? Don’t you, Jackie?’

‘No way,’ Jackie said, her voice cold and even. ’But how I know, that’s not anything I can explain ...’

Jammer took a black slab of plastic from his back pocket and began to shave, ’Sure,’ he said. The razor hummed as he worked on the line of his jaw. ’I lived in cyberspace for eight years, right? Well, I know there wasn’t anything out there, not then.. [...]’

Jackie leaves. Jammer conspiratorially asks Bobby

‘What did they look like, kid? You got a make?

’Just kind of greyish. Fuzzy ...’

Jammer looked disappointed.

’I don’t think you can [emph.add.] get a good look at them unless you’re part of it.’ [...]’You think they’re for real?’Â

’Well, I wouldn’t want to try messing one around ’So what do you think they are? [...]

’Well, I don’t know. Like I said, I don’t think I can swallow them being a bunch of Haitian voodoo gods, but who knows?’ He narrowed his eyes. ’Could be, they’re virus programs that got loose [emph.add.] in the matrix and replicated, and got really smart [...] I knew this Tibetan guy did hardware mod for the jockeys, he said they were tulpas.’ Bobby blinked. ’A tulpa’s a thought-form, kind of.

Superstition. Really heavy people can split off a kind of ghost, made of negative energy.' He shrugged. 'More horseshit. Like Jackie's voodoo guys.'

(CZ 234-35)

Â Angel, Virus, Cyberspace breakdowns

Viruses. Can a virus invent God after the death of God? What space, if any, and what virility, if any, does a virus have in technology? Are viruses virtualis? A minimal definition of what a computer virus is is given in Simon's 'Virus, Bugs and Star Wars' (1989: the book is cited here because of its traditionality and unwillingness to provoke controversy).Â

> *viruses:* coding illicitly introduced into computer systems and able to 'reproduce', so spreading from one part of a computer system to another or from *one system to another;* and able, *according to the type of virus*, to achieve many different types of effects.
>
> (ibid. 104, emph.add.)
>
> The reproductive capability... can have cumulative and *potentially* catastrophic effects.... The virus - through its ability to progressively 'infest' a complex system - may have consequences that far surpass the perpetrator's intentions.
>
> (ibid., emph.add.)

And this 'potential catastrophe' can only happen 'cumulatively' because the virus remains hidden until it is activated, always 'accidentally'. The virus 'is, for example, a benign or malign program (within legitimate software) that is unsuspected by the user (until it functions)' (ibid. 111, emph.add.).

In other words, a virus always 'happens', is found, invented, having already happened: 'part of the problem is that a virus may take steps to avoid detection, until it is too late.' for what's called the 'host' (ibid. I 12,emph. add). Thus,

> The virus phenomenon is particularly worrying because of the uncertainty it generates: it is difficult to know whether a system is infected, whether a virus will spring into action at some moment in the future. [Undetectable,] a computer system will probably run and run, allowing the infestation to spread: in such a way the computer is induced to co-operate in its own mutilation.
>
> (ibid. 106, emph.add.)

Is virality virtualis, then? (- Remember that Angels are also destructive.) What or which time does it have?

Viruses contaminate. They come from somewhere else. Where? In the text from which these citations are being taken, Simons notes that viruses 'mutate'.Â

> A virus, as an effective parasite ... can run without being explicitly called by the user of the program, a trick it can manage by altering the operating system. [...] A virus may take steps to avoid detection, as with the deliberate evolution of different species of virus ...] It is also of interest that some virus-detection programs do themselves become infected, and so are then only

capable of degraded performance.

(ibid. 113, emph.add.)

(This last instance where the ’detection system’ is itself infected is certainly of some interest: such an ’interactive system’, if transposed to humans, is how the HIV virus works.)

A virus maintains its agency only in remaining hidden. Its virality is lost upon its discovery. A virus is never itself found, never presentable in its virality. Viruses are interspecial. A virus comes always from another species. It is always new. The origin of the virus is always elsewhere. Where?

Discussing the origins of viruses, in a collection of papers from the first conference to be held on viral mergence (1990), Krause begins the ’Foreword’ thus: ’Like science, emerging viruses know no country. There are no barriers to prevent their migration across international boundaries or around the 24 time zones’ (Emerging Viruses xvii). Viruses would be virtualis, then. From Pasteur: ’Science knows no country because it is the light that illuminates the world’. With Pasteur, science is angelic, virile; and so almost, with Krause, are viruses too.

‘Almost’ because viruses ’originate’ in corporeal space. They move in, across and through intermediate locales, taking their time. At least, bio-chemical ones do. From the essay just cited:Â

> For whatever reason, ’swine flu’ did not go global. The same can be said for Ebola virus infection. While deadly localised outbreaks occurred in Africa, it too failed to go global. But AIDS did so. This poses the practical question: Do strategies exist to anticipate, detect, and then prevent future epidemics due to new viruses or the reemergence of old ones? Can we devise countermeasures to forestall the emergence of new plagues?
>
> (ibid. xviii, emph.add.)Â

Krause continues:Â

> microbial mischief ... attracted attention. They conspired with the changing circumstances of our times and fermented a succession of unexpected events - epidemics of genital herpes, Legionnaire’s disease, toxic-shock syndrome, Lyme disease, and a surge in malaria that encircled the globe. And then came AIDS. [...]
>
> "Has something new ocurred?"asked Congressman Joseph early during the House Appropriation hearings for the National Institute of Allergy and Infectious Diseases in 1982. "Why do we have so many new infectious diseases?" "No", I said, "nothing new has happened. Plagues are as certain as death and taxes."
>
> (ibid.emph.add.)

*

Virality will always be new, and that is nothing new. In its discovery or invention, a new virus is not at all new. It can be very old. And that is because it comes from somewhere else. Which ’elsewhere’ is not reliably or fixedly ’outside’: a virus is species-specific, which is only to say local. Even in the Logos, even when ’contemporary man is a manmade species’, as Lederberg writes in a paper from the same collection as Krause, even when there is, after the death of God, in the virtualis of technology, only us, even then, ’our only real competitors for pure virtualis,

> remain the viruses; for it is by no means clear that antiviral antibiosis can generally be achieved in principle. The very essence of the virus is its fundamental entanglement with the genetic and metabolic machinery of the host.
>
> (ibid., emph.add.)

Does a virus have an essence, is it at all fundamental? Only in techno-logos: viruses will always be able to appear as messages, and be able to be decoded by us. That will be their essential deterÂ-mination: a means of communication. And virality will be dead.

Angel, Virus, Cyberspace breakdowns

But a virus is there in a place, at least biogenetically and perhaps in biotechnological virtualis too since there is no need to restrict viruses to the ’living’:

> [o]ur view of [a] virus as a parasite is complicated by that of a virus as a genetic element, a two-way channel. The viruses are routinely subject to phenotypic modification [emph.add.] by the host cells and, from time to time, the viruses incorporate host genes in their standard genomes and vice versa.
>
> (ibid., 5)
>
> Th[e] pattern of mutualism must have prevailed from the very early stages of biosynthetic evolution, perhaps even prior to the organisation of the cell as we know it. The recombination of self-replicating molecules to facilitate biosynthetic complementation would have accelerated primitive chemical evolution from the earliest times.
>
> (ibid. 8, emph.add.)

And another ’expert’ in the field (Levine):

> viruses populate the world between the living and the non-living, the molecules that can duplicate themselves and the ones that cannot. (Viruses 1)

‘Between the living and the dead’, and in the living - which might be the organic, ’intelligences’, the spiritual, the virile- and in the dead - which might be the molecules, chemistry from the ’earliest times’, viruses may already ’contaminate’ the machinic, right through to the level of the molecules.

The ’machinery of the host’ that Lederberg mentions above need not then be alive. It may be machinery, perhaps even electronic machinery. And perhaps even cyberspace. Why not? If virality is interspecieal then there may be a contamination across types of species, from the inorganic to the organic, from the living to the ’inert’, from stones to humans, from plants to machines. Perhaps. None of this can be known until it has already happened, without putting an end to its virality. (Virality is necessarily a hypothesis, something like a fiction.) But it is just this hypothetical virality that matter may have in the virtualis of immaterial communication.

It’s worth taking another look at Aquinas’ logocentric determination of that virtualis.

For: a virus is not what it does. The virality of the virus is somewhere else. In Aquinas' terms, it is finite not only in 'respect of existence itself but also in its place. And that matters for the angels, too, because that is just what specifies the angels as angels.

The angels are only the angels they are - virtualis - because of their viral 'contamination'. Following Aquinas, if an angel is what it does i.e., communication, intermediation and the angels are themselves the medium and substance through which communication may happen and through which they understand, it would follow that an angel is its substance is its immateriality is its medium is its essence is its understanding is its knowing.

In the Logos, an angel - which is created - would then be God - who is creator: 'God alone is substance identical with existence and with activity' (ST 54,1; p.74/75; cf. too ibid.'Reply'). But Aquinas has already worked this out and prevented it in its possibility.

Angels are not to be confused with God because they have ideas and they operate 'by means of place'; they move to exercise power in this place or that'. With Aquinas, it is the power, the virtualis, of the angel that determines and demarcates their existence, knowledge and understanding:

> the angel's knowledge is indifferent to whether he is distant or close to the place [of what is known], but it does not follow that its movement between places is in vain; it does not move localities so as to gain knowledge, but to operate by means of place.
>
> (ibid., emph.add.)

Virtualis exercises itself on and by means of place. But that space is the geo-spatio-corporeal place - which has no place for the angels. Space-place would contaminate the place of virtualis, ruining the infinite and unextended reach of its power. Space-place localises each angel.

Spaced place 'contains', inhibits and inhabits the place of angelic virtualis, the medium and power of the Logos; it ‚makes' the angels have ideas. Wherever Virtualis takes place, spaced-place will have been there, actually or potentially. Virtualis is contaminated by what has here already been called virality. Material viruses (those that are said to be biogenetic, molecular, machinic, and so on) may themselves be the virus that spaces the communicative virtualis of the (techno-)Logos, allows it its virile power by restricting it.

In angelic virtualis, the place and time of communication itself, space is a virus.Â

Angel, Virus, Cyberspace breakdowns

Virality matters. That will be the corruption, the individualisation and the impotence of virtualitas. In its materiality, it may have been a passage, a message, some communication, not just between and across matter and matter but also between and across the material and the immaterial.

A virus inhabits and inhibits any 'we' from what would have been 'ourselves'. And if 'we' are already inhabited by a virality, of a virus perhaps as yet unheard of, 'we' are not who or what 'we' are, and will ever be able to be. It is not even the case that 'we' are 'individuals' together since that very 'individuality' has perished.

Virality does not take place by the Logos even if it will have happened in the Logos. The Logos is not and never has been uniform, monodirectional, complete and saturated. The Logos need not be logocentric. Inhabiting the virtualis of technology there may be a new possibility, a possibility newer than anything that technology will bring, newer than good and evil, newer than God. Newer than anything we will ever hear of or come to know or understand, a possibility coming from someplace new that is actually impossible and newer than you.Â

Except: if there will be anything newer than the Logos there, it will take place through what today has been called a virus. Which has yet to be found or invented but may be already here. We will never know until it is too late, until our corruption has already taken place. By technology, say. Spaced technology: technology corrupted from the virility of its virtualis. Technics, we could call it.

Communication will not stop, even if it does not come to 'us', and even if it never quite happens. Tele-technics remains there as that which will never be near 'us', nor come to 'us' in a language, or a media. Tele-technics remains at a distance - and promises just that, that there is a distance, however much communication itself - and today that means technology - will accelerate. Teletechnics commits all of that to its obsolescence, which means that in its virtualis technology will come - to be out of fashion, a ghost of its former self.

'It's' said the Wig, plugged in to the white hum, the background noise of cyberspace, would speak of just this, the ghost (of the ghost) of God:

'Did you know why? What it was about?' 'No,' Jones said, losing interest in the story, 'he'd just say that the Lord moved in strange ways. [...] He said God likes talking to Himself...'

I. Reference abbreviations given in the main text: CZ - Count Zero; ST - Summa Teologica, reference to which are given in the form: (ST q,a; p.x), where q=Question no., a=article no., and,where appropriate, p.x=page x.

February 95

Audioshop: Is it music or is it still time?

ByMartin Conrads, Translated from German by Michael Flor

Subtle forms of technologically written music, as can be found in the mid 90's, demonstrate that through the use of the product (CD) the characteristics of its fabrication process (to store, coordinate and edit data) can be achieved, following the same or similar technological conditions which underlie both assembly and reproduction. Music is produced as a statement which delivers within itself an "about music". In the ideal case, digital reproduction methods like sampling incorporate a kind of cultural practice which corresponds with its technological conditions, namely the capability to be re-applied.

The following musical projects can all be understood in one mode; their production of sound introduces new approaches and achievements into the discourse of the technological "writing" of digitally produced music; all agree on the explicit and implicit statements about the technical predispositions of music.

Audioshop, Is it Music or is it still time?

Just as sampling and digital reproduction methods challenge artistic authorship, so this music challenges emancipation and the economy of listening. The codes of digital reproduction and sampling in hard disc and desktop recording position the existence of the original on the outside and the inside of the source. Used data appears as a series without a genealogy.

The assumption that music is perceived not only as technological artefact but also as aesthetic form remains untouched. Sampling, for example, creates an economy of listening which enables the signs of its own alienation to be relished. Sampling functions as a machine which makes perception perceivable but which also creates acoustic deception. Because technical media bypass primary perception, deception makes competent judgement on the originating noise problematic. In sampling, this deception comes at the intersection of the heard and the calculated.

The aesthetic component of sound samples is closely linked to the perception of time. What happens then to the perceived time looped in a sample? Looping creates a repetition which is at the same time cyclic and linear. A spiral like movement repeating the past to gain a future, an open bow which can feed back its effect as its cause. At the same time alteration of this loop can create a change in the repetition which is calculable, but not necessarily perceivable. The reliability of anticipation based on an already perceived (rhythmical, metric, tonal, etc.) structure deteriorates. Probability emerges only as a function of the file, which re-appears as sound deriving from algorithms. This initiates a process of forgetting rather than of recalling.

Just as technical memories are increasingly designed as a function of forgetting rather than a function of recalling; cultural memory, when it is being projected through the reception, storage, and editing of sound samples, implies not the collective recalling but the singular forgetting. Therefore such music functions as "anti-memory" in which repetition forms a strategy of positive forgetting’ (Daniel Charles) or "revolutionary forgetting" (Deleuze/Guattari).Â

Though not using digital recording methods then, Alvin Lucier demonstrated this in his "I’m sitting in a room". There, both the transformation of language into another non-lingual formalism and the concurrent shift of the signified were augmented through the reduction of expression. Because the structure of the loop is gradually altered throughout its repetition, forgetting is perfected to the extent that all recalling is erased (also the recalling of an "original"). In the same way that continuing technological development enables us to apply certain machine metaphors to complex cultural settings, the periphery of "techno/ambient/new-electronic listening music" terminology shows wirings which are connecting explicitly to Deleuze’s/Guattari’s work on deterritorialisation/reterritorialisation, muddled codes and syntheticised music. The Frankfurt label Mille plateaux is one of the platforms on which digitally reproduced, technically generated music is published with as much offensiveness as subtlety.

The last release on Mille plateaux, *init ding*, from the project Microstoria shows how an organic density, seemingly derived from a laboratory of dynamic and instable technical vegetation, can be created with un-organic means. Microstoria (Markus Popp from Oval and Jan St. Werner from Mouse from Mars) plant mossy sound lichen, music structures in the drive of bio-technical desiring machines. Tiny slow motion drops formulate circular waves in the basin of electro-acoustic winking. This is music from greeting cards of the year 2500. Yet it never loses itself in its *glockenspiel* indulgement. Linking itself always to an expanding universe, *init ding* is carried towards an almost Satie-like level of chamber music and an astoundingly abstract "composing".

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The speaker becomes the scenery for a technical audio-play far beyond Programm-Musik, the music an almost intimate, fragmented Art of coming-out of-the-speaker which in parts reminds one of Bernhard Guenter's *Un peu de neige salie*, Toop/Eastley's *Buried Dreams* or at the other end of the spectrum Gordon Monahan's *Music from nowhere* or *Speaker Swinging*.

Popp, one half of microstoria, is a member of the Berlin-based Oval who in 1994 marked a new phase in the interpretation of the process and product of digital recording with their CD Systemisch (Mille plateaux). One of the methods used by Oval lies in the handling and modification of the origins of samples. CDs are worked on materially, with tape and pen, and immaterially, by skipping through pre-recorded loops on the CD player. This kind of modification (which can also be found with Nicolas Collins) no doubt has parallels. Christian Marclay's vinyl records come to mind, covering the floor and being individually marked by the scratches of people walking on them. The significant difference is that the actual handling of the CD, of the material origin, initiates a process which can not be manipulated and influenced as it happens, one which follows the rules of the CD laser and the nameless, immaterial digital code. Thus the effects of digital production and the effects of digital scanning in the CD player overlap. The edited and processed error function of such a CD leaves one to initially believe that the product itself is faulty. Only through interpretation does the ingenious recursiveness emerge in which the error function (also of former aesthetic categories) reveals itself as a demystification of the digital immateriality, opening up an infinite - because partly random - terrain for further work and thought.

By skipping, fast-forwarding (or sampling vinyl scratches, too) samples here are not like quotations, rather a channel through which data can function as a musical frame of reference. By re-coding the product into the process *systemisch* contemplates the level of comment it carries within it: the procedure and its product exist alongside one another. Following this thought the recent release *diskont* 94 (mille plateaux) can be understood as its own agenda, as comment on *systemisch*.

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At Oval music appears as a trompe l'oreille in the space between technical implementation and the discursive connectedness of process and product, as a hybrid reference towards the aural docuverse it is heading for. The consequence of Oval is the ability to recursively influence the music oneself, when enjoying what in fact is not recallable; only then is the structure deconstructed to its condition: the

un-discovering of the moment and the un-avoidability of technology used. So, if there is an emancipatory content in the systemic and technological space between affirmation and negation, it might be the recursiveness which defines these production methods: applying the principles of Oval onto Oval, throwing the effect back into a possible agenda: handling the Oval CDs, may it be with felt pen, with fast-forwarding, or even using the same hardware. From the vantage point of today, Oval appears as an important step towards a general and universal dispositional and modulating option of musical data in networks. Oval's questioning and their making available of discursive procedures is an essential intermediate step and a procedure in itself.

Jan St. Werner, the other half of Microstoria, has up to now gained a reputation for being connected to Mouse on Mars. The Cologne-based Mouse on Mars appeared in 94 with the CD Vulvaland (too pure) and recently released with *Iaora Tahiti* (too pure) a creation embracing slightly clownesque Can references, subtly deconstructed break-beats, an ironic richness of blending styles and decades and, throughout all, a sovereign handling of sound and rhythm that made some critics believe they had spotted Kraut-Dub at work.

Music here appears as the practical distribution of something theoretical which can not be communicated in any other way; it may well be about ordering the process of forgetting. Music as the keeping of a homoeopathic promise, an aesthetic placebo for the actual data performance. The sample-sweets handed out by Mouse on Mars resemble the pills in Stanislaw Lem's futurological congress: perfect machines for the fabricating of reality copies - and who complains when the GP hands out "sweets" if they soothe the pain? In that sense, Mouse on Mars seems primarily a form of practice through design; by pondering the responsibility for sound at the same time, this design has to be considered as an expression of communication which is 'speaking' through hearing. It implies that the design has to change if the communication has to. *Slow* (Gefriem Records) from '92 for example, is another project of Werner's in which samples are more open and rough than in Mouse on Mars, a practice which makes the process of production accessible in the product. To stick to Lem, we are dealing with another level of reality, possibly herbal sweets.

The consequence of this design method could be the necessity to supply the musical data output with a highly user friendly surface. This may manifest itself either in Oval's way of deconstructing the role of the user or in having Mouse on Mars hand out music in the shape of funny 3-D goggles with which to watch the binary code jump around. The design does not have to be restricted to the product but becomes mobile as a process, decentralised and aesthetically modulable.

Audioshop, Is it Music or is it still time?

In Christophe Charles' work *Deposition Yokohama* (Christophe Charles) the product of music understands itself as a network in which the amount of CDs distributed worldwide corresponds with the idea of a temporarily erected sound installation in Japan. *Deposition Yokohama* refers to John Cage's *Roaratorio* in which he used I Ching-based chance operations to design samples of 2293 soundscapes on locations and noises mentioned in Joyce's *Finnegans Wake*, editing them with the IRCAM multitrack system. Deriving from an interactive installation in Yokohama, the CD contains 26 single tracks which enable one to listen to the work in both modes, linear and shuffled. By dividing the concept of the work into the installation-part on one hand and the mobile CD-product on the other, the CD can be seen as a multiple - a part of a worldwide spread installation as well as part of an autonomous work on CD. Charles states that "the work of art is here returned to its audience, and thus escapes from the control of its maker and its administrators." By loosening the installation piece from

its site-specificity, the CD can work out as a multiple *musique d'ameublement*, interpreting "deposition" as "interaction, multiplicity, interpenetration without obstruction, and make the experience of a form of society which does not remain under administration of authoritarianism and politico-economical power." One principle of *Deposition Yokohama* leads to an attempt to make as many units as possible musically accessible, to finally format music as usable data. The CD medium has its boundaries there where the shuffle-button appears as the last option of the culture industry or as the best option for the decentralisation of listening.

Momentarily the best approach towards samples is to present them as viruses. Otomo Yoshihide's *The Night before the Death of the Sampling Virus* (Extreme) consists of altogether 77 tracks of origin-samples which circularly refer to exhausted sound surfaces, electronic entertainment achievements and broadcasting inanities. Music which makes answering machines jump start. Yoshihide offers an invitation to play the tracks in varying order, to avoid the chronological order of 1 to 77. The idea of constructing tracks as viruses finally clarifies itself when the CD jams at track 44. Is it due to the kind of listening? Or is it due to a refusal to follow Yoshihide's request to massively sample this CD: "Playing this s CD through as regular music may cause s the viruses to perish or change in quality." Consequently the viruses are named after the type of hardware they emerge from - Nintendo, Sega, Sony and so on.

In Yoshihide's sometimes archaic sampling methods (e.g. boiling records) he intends "to lay bare the act of sampling itself, not to create a musical work." In that sense the viruses are a categorical invitation to alter the sound structures of the CD - to play the CD in parallel to other sources of sound, to play it in fast-forward mode, to scratch it, and finally for maximum effectiveness to sample viruses from it: "What is important to remember is that the user is the one to decide how they are to be utilised. And, of course, how they are to be executed (killed)."Â

Such a user friendly interface once again tests the emancipatory character of production within the "economy of listening". Increasingly, music on the periphery of Techno seems to be concerned with a productive kind of self-definition. Meanwhile a production technique such as sampling has gained its own history as an excellent device for the questioning and challenging of technological production methods. Sampling has reached a degree of abstraction that has enabled the uncovered form to become its own structural content, to become *decollaged*. The question as to what extent such discursive and connectable music represents a subversive statement should rather be concerned with whether this subversion is a technical effect of the software/hardware used in its making. Would this prove to be a technologically deterministic view or, on the other hand, a strategy towards an affirmative overcoding that could work out to lead some elements of the underground into cultural (re-)production?

CODE

BySheep T. Iconoclast

There is a thin line between religion and computing. For some reason the image of Hindus feeding their statues milk has occurred within the same month as even more believers spent more time painfully attempting to install windows 95 on their PCs. Scanning newsnet pages on PC's, Macs [comp.sys.mac], workstations tend to bring up the kind of fanatical savagery you would expect to be more common in an ethnic war. A.C. Clark - the guy who wrote 2001 and invented satellite communications, then blasted the whole thing by doing a weirdness program for the Discovery Channel - once made the statement that advanced technology will be indistinguishable from magic. He does have a point, computers are becoming a new modern voodoo. I once noticed a student who regularly changed the colour of the screen's background before using Photoshop, then changed it back afterwards. She explained, that she had discovered that if she did this Photoshop wouldn't crash. The

pixies are exchanged for pixels.

It is not surprising to discover that computer based art is undergoing a curious conflict. I don't get to name drop much, so suffer me this once; I was on the interview panel for the post of head of computing for a well known London based school of art. The applicants fell into two camps. The true-grit programmers and 'computer artists of the next generation'. Like most religions they are both right. Naturally I'm not going to tell you the truth; this is a deliberate attempt to polarise the debate for the sake of dramatic effect, sorry encourage responsible debate.

CODE by Sheep T. Iconoclast

<H2> Sellotaping ourselves to the true -grit-programmers first. </H2> The true-grit-programmers began in the 70's with the original displays, programs in <code>FORTRAN<code> being submitted on cards to the local mainframes. Here they found a completely new way of exploring art, creating forms and functions which would be impossible in 'manual' art. It was a natural medium for those interested in methodological art, or for those who wanted to explore an idea by removing themselves from the loop (i.e. removing all historical and cultural bias).

They didn't want the students to be <blink Amited</b link> running around picking up the leftovers dropped from the table of corporate software development. If you can program you are no longer limited to the imagination of what others can do, computers are truly general purpose machines and the only way of accessing this power completely is via programming. To create truly original pieces of work implies some crazy transgression of 'norms' which prewritten software constricts worse than Victorian undergarments. With prewritten software it is quickly possible to reach the limits of what the application can do for you, simply because the software was not designed with you in mind.

If you cannot program, the best thing to do is to find someone who can explain your ideas and start applying for funding to pay for it (like William Latham did). This is not really different from Jeff Koons using lots of Italian craftsmen to construct his work, or using a technical advisor to help make an installation. However writing a proposal which describes in sufficient detail what the software will do is almost as complex as writing the software. What becomes the issue here is the language the 'software' is written in. One is the foreign alien unreadable language like C, the other is the foreign alien unreadable language people reserve to write application proposals in.

The true-grit-programmers are mostly taller and older than the next-generation as well.

Now, performing the Vulcan mind transfer with the next-generation, we discover that many come from a fine art printing background. They are the first generation who grew up with access to general' computing. Off-the-shelf, shrink-wrapped, back-of-the-lorry packages like Photohop, FreeSand, QuarkExcess, MangleMind Director became available and permitted experimentation. They began by using software to help complete other work, this reduces the separation between computers and everyday art activity. Well designed software does not take long to introduce, in a teaching setting it is possible to bring students to see what is possible, without a huge time investment by both student and teacher. By lowering the barrier to the use of computers, more students get access to the utility of computing. This helps to hit and run the myth of computers as logical and nothing to do with creative activity. The use of standard software makes links with hardware like printers and video output possible (or in the case of Windows 95 theoretically feasible). So called hard copy aka prints and

videos, helps to bring electronical further into the process of general studio activity and pushes it out of an isolated space. Programming to the new generation is putting some lines of lingo in Director like ’go to next mark’, anything else is for enthusiasts or post graduate activity. The possibilities of what current applications can do is so overwhelming that the idea of learning a new language is as appealing as learning Italian - I would be nice to get around to doing this but I haven’t got the time.

Certain schools of art and design are strong believers in not teaching programming. Even activities like Lingo or Hypercard scripting are frowned upon. Students stay up late at night furtively Macroing languages too tend to be stuck on at the end of the software construction process and hence tend to get the script writer running in strange hoops around the limitations of the application.

The primary reason used by the next-generation for off-the-shelfism is the focus on art of ideas, curiously the true-grit-programmers believe coding will have the upper hand for precisely the same reason . If this ever gets resolved someone email me.

Consumer Product

ByPauline van Mourik Broekman

After launching Bill Barminski’s whole back catalogue on the successful "BARMIN-SKI: CONSUMER PRODUCT" last year, Consumer Productions (Webster Lewin, Jerry Hesketh and Bill Barminski) are now putting out "The Encyclopaedia of Clamps", another pop-product introducing multi-media artwork and a set of lovable characters such as Jimmy Slime and Cyclops Boy (already familiar from BAR-MIN-SKI).

As in the last CD-rom, the Encyclopaedia will integrate a mixture of 2D media, paintings and drawings into constructed 3D environments with various central characters forming an exploratory narrative and general information space. Barminski’s work: born to be interface, slightly tongue in cheek, retro and pastel-political is a kind of angry version of My Little Pony, out of sync with contemporary art by a decade or so at the very least, but fully forward compatible with new notions about the leveling of hierarchies digital technology is going to bring to global culture (see Toby Crocket’s essay on his work: "Technology makes people democratically inclined").

BAR-MIN-SKI is a very funny CDrom and, if it was only to be introduced to the concept of Tex Hitler, I’m glad I have this particular CONSUMER PRODUCT.

Consumer Product

Fintan Walshe

Drawn to the psychological dynamics involved in the presentation of fashion; to its enforced discomfort, piercing gazes, and beautiful, caged flesh, Fintan Walshe has recently embedded a shimmering seduction even deeper into his clothing. After using his models as walking electronic

mirrorshades, casting back the gaze of the audience - in his glitterball coats, or dresses with television prostheses - technology is now sandwiched inside the clothes. 200 Battery powered lights hugged by folds of yellow satin cover the body in a near- invisible capillary system that can glow in the dark for up to 8 hrs.

Fintan Walshe

Image: Gavin Ferndandes, Dress, shoes, shades, and styling by Fintan Walshe

Fragments for an Essay on Incoherence

ByDavid Lillington

Estragon: I'll go and get a carrot.

He does not move.

Vladimir: This is becoming really insignificant.

Estragon: Not enough.

Waiting for Godot.....

This is the code issue of Mute and this piece, which remains in note form, was to be about the appreciation of incoherence for its own sake, about the aesthetics of the undeciphered. During the summer a flyer advertising sarees came through my door. In the list of types of saree was the phrase *Marble Chiffon Computer*. It occurred to me that while I wanted to know what this meant, not knowing was also enjoyable. Obviously this isn't a new idea, either to me or to anyone else.

Point one then, is delight: if you mean to enjoy the poem as a poem, stop cross-examining it, stop trying to force it to make sense. Or if you must cross-examine, remember that the third degree is not the poem. "Most poems do reveal..." et cetera. John Ciardi [1].

"A poem must not mean but be." Archibald McLeish (quoted in ibid)

Encoding in order to make clear later: this is the point of a code. The message sent in code must have two things: absolute opacity at one end and absolute clarity at the other: the point of the code is its clarity to the recipient. Hence usefulness, aesthetic appeal and use as metaphor: as if the world itself were encoded, but the code (goodness, truth, beauty; religion, love, nature, drugs, poetry or magic, made it clear: *revelation*. is the key here...) And perhaps because of this hope, the code *undeciphered* has an aesthetic appeal...

The appeal of codes is the appeal of the esoteric.

The best art is the art we don't fully understand. We say it has depth. Fully grasped, it loses its interest. Both underworld (subconscious, gods, devils) and skies (muses, gods, cosmic rays) are invoked.

"All poetry aspires to the condition of music." Keats

The thesis of John Livingston Lowes in the Road to Xanadu ("one of the most fascinating books ever written", quotes the blurb from the Tribune), a book high on lit Grit's cult list, is that all the bits and pieces the mind takes in are given a unity by the force of the imagination, which he sees in a Coleridgean way - as a creating, God-like principle, so that something of creation is revealed by this other act of creation, that of the poet. Key texts are those in the Biographia Literaria in which Coleridge contrasts Fancy and Imagination. "Fancy" is what we might in daily life call imagination. But Imagination is at once visionary and creative. Coleridge & Transcendentalism...

It's the *lack* of coherence which makes poetry interesting, or the interplay between incoherence and coherence. The need for obscurity, or complexity, is also perhaps to do with the need to connect mind and body. Poetry is music; its outcome therefore dance. Verbal meaning and bodily movement are brought into one space, the two halves of the brain engaged in the same activity, external things united. Hello trees, hello sky. Only in art are contradictions reconciled. Think of a song you love. You can *dwell* in that song. Song-space. Everything can happen there. In that space, at least, everyday conflicts are resolved, while existing freely in it. Affinity with prayer then. And sleep, with its dreams. And possibly conversation and sex. And drunkenness. Not sure about sex.Â

The incoherent is the drunken, the Dionysiac. Baudelaire: "Get Drunk ...[2]" Dionysiac implies dancing and dancing sexuality and sexuality unity - and all of this is gloriously obvious. Poetry is a party.

The Road to Xanadu is so delightful because Livingston Lowes is so openly and deliciously seduced by his subject, gleefully immersed, his work itself becoming one long poem - at times almost concrete, what with the quotations and footnotes and "bays and bafflements" as John Berryman said of the Bible - one immense lucid drunken wallow in the poetic.

Coleridge himself has once and for all put it in ten pregnant words: "*the streamy nature of association, which thinking curbs and rudders.*[24]" And that "streamy nature of the associative faculty,"[25] curbed and ruddered by the disposing imagination, is the prime instrument in the hands of genius, and its implications lie at the very root of art.

"Heaven forbid that anybody should suppose that I suppose that in all this I am "explaining" poetry! But the incalculable power which we call Imagination, whose goal is the unfathomable something we name Beauty, is no alien visitant, but an agency which operates through faculties of universal exercise upon that streaming chaos of impressions through which we hourly move. The time for a final appraisal of results has not yet come. But we have at least seen enough to recognize that one office of the imagination is to curb and rudder the clustering associations which throng up from the nether depths of consciousness, until out of the thick of the huddle spring beauty."

Baudelaire's "Correspondances"[3]

The connection of things: the unity of mind and body and of heaven and earth, in a Platonist way, and as in religion, Catholic or otherwise, (the mass is a long performed poem.)

And later with Freud in psychoanalysis and the belief in the absolute mystery of the unconscious, such that this is equated with the fatalism of Greek Myth, but also its (the unconscious') partial accessibility, like striptease or sexy underwear - revealing but concealing: psychoanalysis is seductive, as Surrealism realised, and created just a few of the century's most seductive objects and pictures - notably photographs, and that damn teacup.

Andre Breton realised that this had always been the case and made a list of past "Surrealists", the writers include Rabelais, Joyce,, who ended up writing *Finnegan's Wake*...

But also: clarity is both poetic and mysterious and a writer like Spinoza... etc, etc, etc.

THE ENDÂ

Some Thoughts for Cybernauts.

I'm not sure who said some of these things. If anyone knows, please tell Mute. Also some quotations may be slightly inaccurate. Not significantly.

Never photograph anything you're not passionately interested in.

? to Lisette Model

The search for a partner is the search for an alternative self. The person who realises this has immense power.

Maurice Oppenheim?

If my neighbour is stronger than I, fear him; if weaker, I despise him; if we are equal, I resort to subterfuge. What motive could I have for obeying him, what reason for loving him?

Jean de Rougement

Every fashion has its legitimate charm.

Baudelaire.

The veil makes vision possible.

John Livingston Lowes

Origins prove nothing.

ditto

Don't compare things which are different.

? *I'm especially keen to find the origin of this one. I think it was a classical Roman.*

One of the great things poetry does is that it keeps the eye open when everybody else is flinching.

Clive James

The happy man is the one who can connect his end with his beginning.

I can't refind this one. It's somewhere in Dante...

The road of excess leads to the palace of wisdom.

Blake

The palace of excess leads to the palace of access.

Mark E Smith

Let's breakdance.

Ditto

No limit to the stations and no hope of crucifixion.

Samuel Beckett

Come on get in the car. Let's go for a ride somewhere. I won't hurt you as much as you've hurt me. Let me take you there. Before the sun goes down. Come on gimme your love. Come on baby all you have. I wanna to take your breath away. Come on baby. Just like that you say. You make me feel so crazy. Come on get in the car. Let's go for a drive somewhere. I won't hurt you. You make me feel so crazy.

Sonic Youth

Nothing bodes more ill than the loss of a friend.

Cicero.

Only great pain is the true liberator of the spirit.

Freud.

If you use only abstract words you can say anything and get away with it.

Mark Arnold

Subversion requires strategy.

?

The truth comes through the strangest door.

Francis Bacon

We are all the prisoners of our liberators.

Paul Tournier.

1 John Ciardi, ’Mid-Century American Poets’, Twayne, 1950.

2 One of the prose poems in "Paris Spleen: Little Poems in Prose", 1869. This is it:

GET DRUNK

"One should always be drunk. That’s the great thing; the only question. Not to feel the horrible burden of Time weighing on your shoulders and bowing you to the earth, you should be drunk without respite.

"Drunk with what? with wine, with poetry, or with virtue, as you please. but get drunk." And if sometimes you should happen to awake, on the stairs of a palace, on the green gran of a ditch, in the dreary solitude of your room, and find that your drunkenness is ebbing or has vanished, ask the wind and the wave, ask star, bird, or clock, ask everything that flies, everything that moans, everything that speaks, ask them the time; and the wind, the wave, the star, the bird and the clock will all reply: "It is time to get Drunk! If you are not to be the martyred slaves of Time, be perpetually drunk! With wine, with poetry, or with virtue, as you please."

(Translation of Louise Varese, Paris Spleen, New Directions, 1970.)

24 My computer can’t cope with the idea that I want the footnotes number but not the footnotes

25 .....

3 A sonnet, and the fifth poem in the *Flowers of Evil (1857)* . It became a Symbolist manifesto.

’The pillars of Nature’s temple are alive

and sometimes yield perplexing messages; forests of symbols between us and the shrine remark our pasage with accustomed eyes.

Like long-held echoes, blending somewhere else into one deep and shadowy unison as limitless as darkness and as day, the sounds, the scents, the colors correspond...’

(Translation of Richard Howard, Picador, 1982)

From Pages to ParangolÃ©s: Radical Excess, Technology, and the Publicational Body

ByJordan Crandall

In recent history, art criticism moved beyond isolated works of art to encompass their institutional framing conditions. These institutional frames were embodied in the figure of the museum. The institutional complex of the museum formed part of the "site" of the artwork, and participated in the object-site dialectic necessary to produce the work’s meaning.

Today art criticism is again moving beyond isolated works of art to encompass their institutional framing conditions. These institutional frames are no longer embodied in the museum, however, or in any particular physical space, but in the discourse networks of the media. The institutional complex of the media is now part of the "site" of the artwork, and therefore participates in the object-site dialectic necessary to produce the work’s meaning.

The earlier scenario can be symbolized by the figure of the painting in a museum. The later scenario can be symbolized by the figure of the image on the magazine page or computer monitor. But the latter scenario does not replace the former; it augments it. On the one hand, then, we have an artwork that is a combination of the object and its representations, such that we can no longer locate one or the other as primary. They form a new entity, an indissoluble configuration, not locatable, that expands and redefines "objectness." And on the other hand, we have a site that is a constellation of materiality and information, as if its very walls were composed of potent hybrids of museum space and publication space, circulating with increasing frequency and power.

All components are marked by a perpetual flux between materiality and information. The object-site dialectic has become a dynamic matrix: a dance of physical and informational relation, wherein both object and site are bound up. How is this dynamic space constituted? Consider the role of Mute in communicating this scenario. This dynamic space is constituted within the circuits of media.

Considering this new institutional media space and its "sites" of publication, why are the artworks reproduced in contemporary art publications still regarded as if they were objects sitting in a gallery, and not also sitting in a magazine? Why is there no awareness of their own sited conditions? These representations point back to absent referents, origins that are no longer there.

From Pages to Parangoles

Such origins are dispersed among networks of linkage, circuits of information, wherein the image functions vastly different than it did before. Indeed, the image has been endowed with an objectness heretofore unheard of, and the solitary art object with an unprecedented representationality.

It is curious why institutional critique has not been extended to the institutional site of the publication. The art publication is not neutral toward the image it hosts. It directly participates in the content-production of the work it exhibits. Instead of engaging such awareness, the art publication contains almost no criticism of its own assumptions, its contents printed and bound with almost no critical reflection upon the medium in which they are placed. Such criticism halts at its borders.

It is this authoritative border that contemporary textual theory has sought to problematize. But after more than two decades of such theory, which points to alternate, more social modes of textual and artistic construction, the art publication has emerged intact and strangely reinforced, with hardly a scratch in its armour. While theories and practice: point to a more collaborative process of content-construction, the publication’; contents are fixed and rigidly defined its author-reader distinctions vividly, drawn; while the borders of the text blur, the publication clearly demarcate: them; while the artwork’s location is: complicated and its medium opened to include social and spatial elements, the publication clearly isolates it within frame and reduces its medium to traditional materials. The fact that the publication is unwilling to put into practice the changing structurality of art and text, and that its contradictions are so severely repressed, points to an alternate, spectral construction composed of the elements that it negates, smooths out under the rollers of the printing press and drowned in ink in order to uphold and secure the borders of the page, the authority and sanctity of the binding. This constitutive outside is never acknowledged, this radical excess never incorporated. The art publication appears to stand outside, the watchdog of discourse.Â

Following closely on the heels of textual theory, contemporary technologies have initiated and registered new forms, in an explosion of variations such as hypertext, hypermedia, and multimedia, both online (for instance, the Web) and offline (CD-ROM). In the absence of a better term, and in order to contrast this with textuality, I'll refer to these forms collectively and generally as "hypertextuality," hypertext for short.Â

Some theorists of hypertext have written that it embodies most of, if not all, of the concerns of the textual theory of the recent past - for example, that it fundamentally destabilizes text, foregrounds the interactiveness of text, and blurs its relations of production. What has actually occurred, however, is something quite different. Rather than building on textuality's problematics and engaging its rich history, hypertextuality gleefully leaps over it and establishes its own, separate technotopian terrain - a separation that textuality has consistently and severely called into question.

Important differences have emerged between the two. Textuality anticipated the networks of linkage that hypertext employs, but textuality called for links that reach "outside" the pages of the book (such that there is no longer an "outside"). Hypertext, on the other hand, halts its links at the boundaries of the computer screen and resists those connections that would extend "outside" of the monitor. Instead of incorporating in its purview the printed text and other textual forms in an engagement of this constitutive outside, hypertextual theory continues to favour a medium-specific - digital-conception of text.

But there is an even more fundamental difference. Even though it appears to be more active than textuality, hypertext has curiously eluded an engagement with performative studies, which have sought to infuse materiality and action into text. Wittgenstein, for example, saw language and the actions interconnected with it as indissoluble, and speech act theory has foregrounded the material, ambulatory character of language. Those who study other social and discursive theories continually demonstrate how discourse, embodiment, and materiality, far from being isolated realms, are always bound up in each other. Instead of engaging this history, however, hypertextuality leaves embodiment out of the loop in favour of an abstract "information space" where the only action that matters is the choice offered by the if programmer/author ("click here"), and material conditions cede their relative importance to an autonomous text space that is, in turn often subsumed into the realm of "virtuality." That real/virtual, material/text or even mind/body dualisms are so powerfully operative today reveals more about the normative mechanisms of the market than it does about actual social conditions of content-production. To the perceptive artist or cultural producer, such a situation calls not for more products aligned with these market norms, but for their resistance and disruption.

This text provides a diagram for reconsidering the materiality of the publication and its constitutive editorial relations. It departs from the links that hypertextuality employs and augments them with circuits. In terms of the physical presence of the publicational body in which this text is conveyed, these circuits open up horizontal links to networks of flow, prompting awareness not only of the material represented here, but the materiality of Mute as well as the editorial formations and embodied positions that it calls forth and which endow it with meaning.

These circuits call for an irresolvable tension to be maintained between text and hypertext, where each realm actively engages, and complicates, the assumptions of the other. If this tensional space is foregrounded - that is, if I think of how the print text and the digital text (and other texts) are connected through the conduit of my own bodily agency, and resist parcelling these elements out - its constitutive relations can be mapped and the editorial content itself can be located within that tensional arena. As textual studies have shown us, the text is always already located there.

Three elements form the coordinates of this tensional arena. These elements require contextualization, and they are actively social, generating constellations of relations, but for the sake of illustration, I'll first isolate them. The first is inscription - the linear encoding on a surface, by, for example, pen or keyboard. The second is interface - that surface upon which an inscription is made, such as a page of a book or a window of the computer screen. The third is incorporation - that body or process of embodiment that both encodes and forms itself in relation to code. To position the embodied inscriber within this arena, not on the outside of it staring at the monitor, is to engage performative studies and to understand the extent to which embodiment is a part of the textual process, in terms other than as a mouse-wielding conduit for pre-programmed choices. As such, it prompts not only an awareness of the location of the text, but ways of disrupting its normative techniques.

The circuits drawn between these three elements - inscription interface, and incorporation - define a "content-arena." Together these circuits and arenas weave a new materiality for the contemporary publication. Consider how the print publication was constituted in terms of these components. Individual pages of the print publication have always functioned as "access surfaces" that allow the reader to access the editorial content of a particular issue. They define the editorial content in two ways: its content (the totality of the contents inside) and its form (the physical area constituted and by all of the pages bound together). In terms of our circuit, the print publication has inscription in the form of images and printed text; it has interfaces in the form of printed pages; it has an incorporation in the form of a bound construct, and it prompts an incorporation in the form of the embodied reader, who turns its pages one by one. These pages both register and initiate changes in the publication's relations of production, such as between author, reader, publisher, distributor, and so on-changes that are registered most visibly in the masthead and contents page, but which are also visible in the assumptions and distinctions that the publication makes as well as the regulatory norms that it enforces.Â

The traditional editorial page - the print-based interface - interfaced these relations and functions. The content-arena was simply constituted differently. In terms of our circuit, the print-based interface mediated relations between inscription and incorporation, changing the ways they relate, as different relationships between inscription and incorporation changed the ways the interface appeared and functioned. That is, codes and bodies related differently as interfaces changed, and those changes simultaneously caused changes in the ways that interfaces appeared and the roles that they played. To connect the other elements in the diagram: The interface related differently to incorporation through the mediation of code, which changed the ways codes appear and function. Incorporation participated in new relations between codes and interfaces, which participated in the formation of new kinds of incorporations, some of which we might today call "virtual." As an example, within the Internet environment of the MOO, consider the kinds of bodies produced in and - by the printed page, and consider the kinds of hybrid bodies produced in and by the MOO interface. Both are produced by typed texts, but they are codes that interact with, and therefore operate differently within, alternate interfaces. Interfaces are therefore inextricably involved in processes of incorporation. To visualize their role is to foreground their materiality and function, thereby making visible the content-arena within the circuit.

The publication Blast provides a testing-ground for engaging this situation. Blast is a publication of contemporary art that is produced each year by the X-Art Foundation, an artmaking collective and nonprofit organization based in New York. Each issue is presented in a boxed container (called a "vehicle") - containing printed matter, computer programs, sound works, and objects - and distributed through bookstores and galleries. Yet each issue also incorporates live and online elements that disrupt and augment the publication's physical presence. A tension is maintained in this way between its "inside" and its "outside," and the editorial content is deflected into that tensional field. In this way, the boxed container, its content-elements, and the embodied reader/producer are connected in the circuits I have described, none of which cement the content into any particular medium.Â

One of the "pages" we've experimented with in Blast is the *ParangolÃ©* (after Oiticica). This structure is worn on the body and it changes in direct relation to bodily movements. It was inspired by the Parangol6s of the late Brazilian artist Helio Oiticica, who created them in the 1960s and 70s in Brazil. The *ParangolÃ©* gradually developed out of geometric painting, where, as Oiticica says, "everything which before was either background or support for the act and the structure of painting, transforms itself into a live element." For our purposes, one can also substitute "reading/writing" for "painting." Oiticica animated the artwork's surface elements, its structure, its space of interaction, and its modes of construction in a dynamic interplay of corporeal, social, and spatial relation, and Blast attempts to draw parallels to the construction of editorial. As Oiticica indicates, the work is no longer something in relation to which one stands, but becomes a circuit in which one is immersed: a "cycle of participation" in which viewer and viewed, "watcher" and "wearer," are enmeshed in circulatory, changing patterns. Like the surface of the interface, the *ParangolÃ©* is softened and deepened through interaction: it draws the participant into the space of the work similar to the way the interface draws the participant into an alternate, hybrid space or situation. To "put on" the *ParangolÃ©* or the interface (or the environment that seemingly lies behind it), then, is to combine body and technology in a process of incorporation, engaging bodies and social formations in a circuitous process of constructing and inhabiting space.

The *ParangolÃ©s* (after Oiticica) exist both in physical space and in the online environment of the MOO. Their pockets contain fragments of texts and maps, assembled and reassembled through direct movement of the body. They emphasize the relations I have described in physical space, within the MOO, and across the computer interface between the two realms, whose luminous color and geometries the *ParangolÃ©* evokes. As such the computer screen or editorial page does not stand but flickers. It is as if these pages of Mute opened up, with one's arms wide, draw the body into the editorial process, the large sheets somehow "wearable," relativizing barriers between "sender" and "receiver" into a circuit which includes the body and inscribes its actions. When all elements are transformed as such, the paper fluctuates, like a flickering radio station disrupted by distance, atmosphere, movement. Such a structure draws out and foregrounds the content-arena and leaves open new possibilities for relations of production. The way that the *ParangolÃ©* interface bears inscription - its fabric folds, its sounds, and the codes that it develops socially from being worn - introduces new forms of inscription into the arena and new symbiotic relationships between incorporation and inscription, which might be visible in the form of posture, hand movement, speech patterns, thought patterns, gender citations, and so on. As Homi Bhabha suggests, such a situation foregrounds the foreign' element that reveals the interstitial" - disjoining the unified surface and cascading it out in folds like Benjamin's royal robe. In its folds and wrinkles, the *ParangolÃ©* embodies the 'unstable element of linkage' - the indeterminate temporality of the in-between, which provides the conditions for invention.

As "pages", then, such interfaces define the publication's editorial arena, which cannot be drawn with any certainty. Instead, its shifting coordinates can be mapped, its patterns studied. To resist resolving this multiplicity is to make the tension generative. Departing from the abstract structurality of circuits,

perhaps the elements or formations of this new publication entity can be considered in terms of "scenarios." Such scenarios would root circuits in embodied life and prompt material formations, re-introducing the contextualizations and social relations that I omitted for the sake of illustrating this diagram. Such formations would allow active exchange across diverse disciplines: the circuits between inscription, incorporation, and interface can be seen in terms of, for example, performance (script, actor, and mutable proscenium) or art (signifying elements, creator and beholder, and the artwork's form). What is called for, then, is not only a radically excessive publicational entity that continually exceeds the bounds of closure, but one rooted in material life and one that actively forms such cross-disciplinary hybrids.

Girls and Games

ByPauline van Mourik Broekman

GRIDS, GUYS AND GALS: *Are you oppressed by the Cartesian co-ordinate system?* Towards the end of the week's proceedings at Siggraph 95, a group of , 'guys and gals' gathered to discuss some perennial questions; does the Cartesian co-ordinate system, and the scientific method in general, determine a specific gender base for computer interfaces and the programming models that lie at their base? Is the way the body is included or excluded in these interfaces anything to do with the paradigm within which they were developed?

Brenda Laurel, who has no time to spare for "any of this post-modern shit" which we should "cut out", called for artistic interventions at the level of popular culture and a stop to the ravages of deconstruction. Laurel defended science. Science is not static, and it is from within science that we will learn about the neurological differences between women and men, their ways of mapping and enquiring into their environment.

Games, she said, their scrolling landscapes and vertically organised spaces, are typical of the paradigms visualised through computer interfaces. Straight up, framed off, gridded, they are fundamentally un-aligned with a, in her view "feminine", navigation, where space is explored in a more circular and body-centric way.

"Girls and Games" is a try-out. Are game players changing? It is clear that games manufacturers are missing out on a crucial segment of their potential audience and that no amount of projections, clever concept-sales etc. are going to crack the nut of the successful girls' game. But do these attempts obscure an existing group, are they hiding a myth that girls don't like the games that are out there at the moment?

Little Big Adventure

ByTina Spear

Over the past 6 months when my PC has been working, (it was severely traumatised by Windows 95) I have been playing "Little Big Adventure". LBA is a PC game released in November 1994 by Adeline. As the title suggests the game is of the adventure variety. My game so far has terrained a single

adventure that is now near its end.

Through LBA the expanding games market has successfully engaged my attention to compete with the time I spend watching TV. By comparison it is a far more participatory activity; the depth of the adventure is not so much in sensational visuals as in the complexity of the unfolding story that the player advances following through all the clues or loose ends in the narrative. Some are better than others and as the game develops a sensibility emerges to help guide the player.

Little Big Adventure - Tina Spear

Image: *Little Big Adventure*, Courtesy of Electronic Arts

That is not to say that the computer graphics in LBA are disappointing - they are stunning "state of the art" graphics, albeit cartoon-like. Early on, the main character Twinsen won my affections. As a puppet he works very well with a choice of behaviours; aggressive sees him with a "let me at ’em" attitude, in all modes he has an over zealous enthusiasm. Twinsen as the action hero is inexperienced, he always plays the novice. We are discovering together, I do not know what Twinsen has to do, he does not know what he has to do, together we blunder about looking for clues with exaggerated enthusiasm.

What gains my attention throughout the game is the added dimension of space in which the action takes place. It is there for me to investigate and this means I can take the game at my own pace to deviate from my inevitable destiny with Twinsen and take time out to have a little fun; taking a wander through the gardens; listening to the plants yelp as I step on them; checking out the contents of the bins and there’s always plenty of chatting with other characters whose response changes according to how far along the adventure I am. It also gives me the opportunity to run reconnaissance missions (in athletic mode of course) in order to develop my own style of attack with minimum risk because reluctantly attack I must. The action is given a solidity through my own groundwork; it is my adventure in a strange collaboration with Twinsen.

The gameplay holds an uncanny resemblance to my actual life where in many instances I am reminded of my "Little Big Adventure" and take note. These usually occur in quiet but ominous situations where I feel my presence to be under surveillance. Driving through the high security zone in the City of London is such an instance.

Midway through the adventure there is a sequence in the Himalayas mountains where an underground shuttle takes me/Twinsen to a Mutant Factory run by Dr.Funfrock, the James Bond genre of my mission is made clear. However in contrast it appears simple for 007, he has a linear trajectory of non-stop actions and cuts to the next scene whereas I far more modestly make my own way and indeed find the next action sequence. As with Bond movies Twinsen gets the girl; one of our final missions is to rescue a princess. So maybe the plot could be more ingenious, but throughout LBA it has been the attention to details which fill the space around Twinsen that have intrigued me.Â

My driving force has come from not knowing what is about to happen next. For this reason I would not be so inclined to play the same adventure a second time. Twinsen would remain the same but as my puppet he would act quite differently and no longer play a lovable novice but a smart arse who would not take his time to listen to what other characters had to say because he/I thought that he/I knew all the answers. However I think one adventure and six months of gameplay is quite sufficient

for one game.

Do You Want A Full Spec Cut Price Macintosh, or Not?

ByStuart Rogers and Paul Miller

Most home computers made in the last five years have the same basic components which come from a few factories in Japan and the U.S.A. Components (Hard Drives Floppy Drives, Processors) can be the same across many models of computer. Sometimes the only real difference is the system installed at the factory which tells the computer to behave like a 'Mac™', PC, or Amiga™.

At last a real bright spark, (Christian Bauer) has written a shareware program called 'Shapeshifter' that exploits these similarities and simply tells your Amiga it's a Mac™. This works because both computers use the same processor chips - made by Motorola. It does involve copying the special secret 'Mac' instructions from the ROM chips in a Mac by using another program supplied with 'Shapeshifter' which, as you might imagine, means that the people at Apple are not too happy about this state of affairs. Christian Bauer is 'in discussions' with them. So if you do want to do this legally (as things stand at the moment) search for 'Shapeshifter' and a friendly 'Mac' owner as fast as possible.

Mac Amiga - Stuart Rogers and Paul Miller

The next question you're going to ask is how good is it? The answer is, your Mac will operate at the same speed and have the same processing power as the Amiga you converted it from; an '030' Amiga will be equivalent to an LCIII, an '040' Amiga will be equivalent to an LC475. I must stress that buying a brand new Amiga A4000 for 52000 will not give you the equivalent 52000 Macintosh.

However if you already own a high end Amiga, 'Shapeshifter' is a real bargain.

With 'Shapeshifter' installed you can use your Amiga/Macintosh™ as one or the other, even both at the same time! Why would you want to do that? Consider AmigaTM accessories, scanners, Drawing pads, Video grabbers, etc. Their Mac equivalents are often twice the price. You can convert work made with your Amiga into the various Mac formats inside your machine (using shareware conversion programs). Shapeshifter' in Mac™ mode runs everything from graphics programs to communications software.

Stuart, the IBM programmer who first showed me this program has tested it to near destruction using every Comms program and Utility he could find. His findings are as follows:

You will need an Amiga A2000, A3000, or A4000 for best performance.

It will run on an Al200 but you must have a minimum of 6mb ram, preferably more for all these machines.

The Al200 will run in 2 colours but is much better if it is expanded with a faster processor (@ Â£800.00 - Â£900.00 for an expanded Al200 with 8mb ram, a hard drive and an '030' processor).

You must have access to a ’legal’ copy of the correct ’Mac’ ROM which must be from an ’040’ ’Mac’ for an ’040’ ’Amiga’ and ’030’ ’Mac’ for an ’030’ ’Amiga’.

‘Shapeshifter’ is now at version 3.2a.lha which is the main archive. You don’t need the MWBMac.lha icon pack. You should also get the SSBootfile which is a bootable filedisc containing the freely distributable system 7.01 and some useful shareware programs.

Basically I would say that if you have (or are intending to have) an Amiga then you should seriously take a look at ’Shapeshifter’.

Made in Birmingham

ByCooper James

We never had Bird’s Angel Delight when I was a kid because my Dad wouldn’t eat it. He worked nights in the Digbeth factory where it was made, emptying two hundred-weight sacks of flour into vast hoppers. "If you saw what went into those hoppers along with the flour, you wouldn’t eat it either," he used to tell me, hinting at ingredients such as human blood and bits of rat.

There are two reasons why this story is still interesting to me today. The first is that my Dad is a 100% genuine originator of an urban myth, a rare thing to be. And the second is that the factory in which he worked is no longer home to gloopy instant desserts but to some of the key people in Birmingham’s thriving digital arts scene.

Now known, appropriately enough, simply as The Custard Factory, the historic building has been divided into units, many of which serve as artist’s studios and installation spaces. It has gone some way to filling the gap left in Birmingham by the absence of space dedicated to modern visual arts: there is no ICA or Cornerhouse type venue in the city. The Factory hosts exhibitions and events - for example, last year’s fax art show organised by Peter Fletcher & Jurgis Lugas, "021 693 6655" - and houses organisations such as Shooting Stills, a photography agency and gallery that generated the UK’s first digital billboards (see below), and Seeing the Light (STL), a collaborative project aimed at promoting photography and digital imaging.

Made in Birmingham by Cooper James

Image: Peter Gudynas, *Bio-cerebral Intrusion*

Out in Wolverhampton you can find the Lighthouse, the nearest thing the West Midlands has to a traditional media centre. Evelyn Wilson, Exhibitions and Events Co-ordinator at Lighthouse has been encouraging digital media into the centre’s spaces over the last year and a half, the list of exhibited artists including Ming D-Nasty, Peter Gudynas and Cath Moonan, with Buggy G. Riphead opening a major exhibition there this October. And Jubilee Art in Sandwell have over twenty years experience in using new technology to help develop and strengthen community links. Their recent project "Sex get Serious" - an educational CD-Rom about sex and HIV - has put them in the media eye and, working in collaboration with the Birmingham Centre for Media Arts (BCMA), they have just won one of four nationally offered commission from CHANNEL (the Media Arts Network) to produce a piece of art to

go out "live" on the Internet. They are also working with Sandwell Regeneration Partnership to set up a new "Centre for the Creative Use of Technology."

BCMA have been very much involved with setting up suitable resource nodes and running courses designed to introduce artists to digital media for some time now. Indeed, in July & August this year a successful exhibition ("New Worlds") was organised at the Midlands Arts Centre which focused specifically on the work of people who had come through these programmes. Rhonda Wilson of STL - whose training courses for using new technology will begin this autumn - explained to me that the central problem for Birmingham artists hoping to work with electronic and digital media has always been one of access, although this is gradually beginning to change.

Darian Systems, the company who recently wired up the Custard Factory (which now has its own service provider) also configured Birmingham's biggest cyber-caf, the Caf Surf (situated in the Arcadian centre), as well as the on-line terminal in the Sputnik bar in Temple Street. There are two other Internet cafs now up and running, one in the area of the cathedral and one on the Pershore road. This last is not a caf so much as a cyber-pizzeria, and apparently takes pizza orders over the World Wide Web; but whether you prefer cappuccino, Pellegrino or Quattro Formaggi with your super-highway the fact is that these venues have seriously alleviated the problem of access in the city.

Made in Birmingham by Cooper James

Image: Peter Gudynas, *Unmanned Virtual Re-entry*

Birmingham is one of the last great unreformed GLC type cities, points out Simon Redgrave of Combustion Media, a loose Birmingham network involved in precipitating projects that cross-over between arts, media and education. Following the building of the Convention Centre with its Symphony Hall and other "international" facilities the plan of the council is to divide up the city into a series of rough "quarters", each with individual economies and interests of their own. Digbeth, where the Custard Factory resides, seems to have become the arts/media quarter, although according to Redgrave "as it is a good ten minutes walk from the 'main drag', it has tended to develop the rarefied air of an artists' colony, a bit like the island of Sark in the 1930's." One of the keynotes of this policy has been providing many new business with very cheap or even free space for their first year of trading. Although many of these ventures are folding after eighteen months, the wealth of new bars and underground outlets that have opened thanks to this opportunity has meant that Birmingham is now witness to the funkiest city centre scene it has seen in decades. "There's an incredible buzz in the whole city," says Sadie Plant, without whom no article on Birmingham arts would be complete. "I can't quite believe it's happening. And cyberculture is a key factor. The city seems to be moving round very much as a context for that. Moseley has always been trendy as Birmingham's Islington, but now the City Centre is blossoming and the north side of the city, around the old Jewellery Quarter where I live - which has always been particularly run down - is now becoming a focus too."

But we are not talking about a simple mimicry of the West Coast Cyberscene. After all, who could imagine anything as hippie dippy as the WELL, or as overoptimistic as Wired coming out of Brum? With the University of Warwick - home of Nick Land - becoming the national centre for viral thinking, and a strong two way traffic between Birmingham and Coventry (where the university is based) now as firmly in place as a PIPER feed, Midlands artists are beginning to realise that they have one of Europe's most powerful intellectual-creative axes in their backyard.

The new year will see the publication of an "anti-cultural studies cultural studies dictionary" by Switch, described by "involved person" Mark Fisher as "a virtual network, liminal between the academy and the arenas of art and music." And the past is not devoid of such projects either. The photography & arts magazine Ten-8 was one of *the* design publications of the late 80's and early 90's. Over a number of years Derek Bishton (now with the Electronic Telegraph) and the other founding editors (Mark Blackstock, Darryl Joe Georgiou & David A. Bailey) established an enviable reputation for Ten-8 as a premiere magazine bringing together image makers & critical theorists and showcasing the work of photographers and photo-artists throughout the Midlands region and beyond. The early '90s saw Ten-8 metamorphose into book form, producing seminal issues "Critical Decade", now a CDi, and "Digital Dialogues", a comprehensive overview of the burgeoning impact of digital media and how it was changing the nature and reputation of photography as a medium of representation.

Peter Gudynas, a freelance graphic artist and designer whose credits include cover art for J.G.Ballard and Pat Cadigan, has had a strong presence in the Midlands for many years. In 1988 he, his brother Bernard, and Jurgis Lugas formed the independent electronic arts collective Zap Art International. Now based in Stoke Newington, Zap Art took a very irreverent post dada, techno pop, trash art approach to their exhibitions and quickly carved a reputation for themselves with work for London's infamous Brain club at the height of the acid house boom, shows at the Alexandra Palace London (1991) and the F-stop photography gallery in Bath (1993), as well as installations at the Midlands Arts Centre (1992) and the Goate Gallery Birmingham (1992). Last winter Gudynas held a major retrospective - "Post-human Photo fictions" - at the Lighthouse. And during summer 1994 Gudynas' commissioned work "Made in Birmingham" - a piece featuring the juxtaposition of a heart, a car production line, and the vast spaghetti junction - adorned a large billboard in the Jewellery Quarter. The display was one of three sponsored by ICL of Stirchley (the other two featured artists Mark Taylor & Claudette Holmes). Words accompanying Gudynas's image read: "A post industrial heart-landscape of arterial roads, intersections and bypasses - cerebral interchange. The confusion of a city lost in transition from one age to another, post-industrial to technological new age. The old city is changing."

Made in Birmingham by Cooper James

Image: Scott Johnston

Darryl Georgiou regards spaghetti junction as the ultimate symbol of the city, and one which in the new climate need no longer be seen as negative: "Everyone's been through Birmingham, but no one's been to it. Spaghetti junction is what most people associate with Central England; from New Street station you can reach most places in the country within an hour and a half. This kind of connectivity has in the past brought with it a huge identity crisis. But with new technology your delivery platform can be anywhere, networks are replacing centralised institutions, and suddenly to have had such an identity crisis is a positively enabling thing." Sadie Plant comments: "If once it seemed that everything was made in Birmingham, the future brings no such guarantees. Together with all the old centres and black countries of the old white world, the Midlands are subsumed by migrations to the oceanic periphery: industry loses weight, hardware softens up, road systems melt into digital highways, and the city of routes and a thousand trades meets the virtual plateau. But the generations whose parents worked on the lathes and assembly line of the past are now those turning the future on."

These Birmingham generations include artists such as Keith Piper, one of Britain's most successful multi-media artists; Steve Pochin, Nancy Flint & Peter Worrall, early contributors to Zap Art and now with a considerable reputations of their own; Andy Saxon and David Miles, both image makers who operate out of the University of Central England; Andy Cameron, a designer & artist with close links to Ten-8; Rhonda Wilson of STL, an artist in her own right; Ming D-Nasty, who creates images which explore women's experience of the new technological forms; and Scott Johnston, who melds digital imagery with Birmingham's fine tradition of comic art, evoking the former with techniques developed from the latter, and who recently exhibited at the Electric Cinema.

The Midlands is also developing a strong reputation for cutting edge multi-media events. "The thing about Birmingham," says Pervaiz Khan of Digital Equinox, an offshoot of the Afro-Caribbean empowerment project DRUM, "is that here's the city of the industrial revolution which at the end of the twentieth century has ended up with the highest proportion of black people of any urban space in Britain. There is far more interaction between black and white here, not because there's any particular awareness or access to 'identity politics', but because there simply isn't the space to segregate. And it was this which meant that the city could produce Steel Pulse in the '70s, UB40 in the '80s and Apache Indian in the '90s ' " Simon & Diamond, cousins of Apache Indian and producers of his first album, were involved at an event staged at the Custard factory by Digital Equinox back in March. Gary Stewart (of London's ARTEC) was responsible for integrating all the aspects of the two-day live arts event which "came out of the desire to create an opportunity using film, technology, video and music to have a public jam session - a real multi-media event," according to Khan. "All the media went onto video and through AVID photoshop to create a full digital palette that people could use." The two night show featured work by Shila Buman, the photocopy artist, and Trevor Mathieson & Eddie George of the Black Film and Video Collective; a second Digital Equinox event is taking place on December the 2nd at Moseley Dance Centre.

Made in Birmingham by Cooper James

Image: Rhonda Wilson and Andy Cameron, *The Lovers*

The latest wave of Midlands artists are finding expression in the forums provided by the club nights that are springing up in and around the city. Bands such as Black Dog and Ultramarine have already received nation-wide recognition; House of God, Atomic Jam, the Bubble Club, Space Hopper & Third Eye are all successful collaborations that regularly do nights at Birmingham's Q-club; The Circus in Balsall Heath carries what are regarded as amongst the best jungle nights in the country. According to Lisa Schrevel, club punter extraordinaire, the scene has evolved on the basis of club nights rather than clubs. "Birmingham licensing laws have traditionally been very strict, and it's only in the last year that anything going past 2am has really begun to happen. But the Q-club now attracts 1500 to 2000 people on a Saturday night." One of the most popular nights at the Q-club is organised roughly once a month by Oscillate. "Oscillate is more of a performance event than a night club," says Schrevel. "It's a social zone as much as a dance zone - and this is indicative of what's happening in Birmingham, pushing at the boundaries of what a club is." An Oscillate night always features a couple of live electronic acts, music by resident DJ's the Higher Intelligence Agency

and lights by Fossett, a theatre lighting technician turned club artist; but you might also find the sound sculptures of Johnny Easterby, or the video and animation of Cloud 23. Magda, an Oscillate prime mover, remarks that this is more than a few funky hangings and a strobe. "We are trying to get away from that. And while everyone dances the music is a gentler groove than you'll find elsewhere - but

it’s not ambient."

It’s these kind of artist led initiatives that are making Birmingham a special place to be. Even some of the Regional Arts Boards are now beginning to acknowledge the role of clubs in promoting new work; people who would never set foot in the Ikon gallery (Birmingham’s equivalent of the ICA) will pay money to visit these "time-based gallery spaces" where new art is always on display.

Made in Birmingham by Cooper James

"Birmingham is traditionally very apolitical. It’s good at the pragmatic, commercial side of things rather than the ideological. And it’s also very unghettoised. Quite unlike Manchester, for example, where the gay village, Chinatown and so on are very much islands turned in towards themselves. That Birmingham is not like this makes it an all the more vibrant place to be." This is Sadie Plant’s view, and it is interesting to note her attitudes alongside the fear of Simon Redgrave that the one thing endangering this recent Midlands boom is the chance that the various quarters of the city might cease to communicate with each other. At the moment, he says, "most of the writers / artists / creators tend to know each other, or of each other, and a great deal of networking goes on. There is, it seems to me, a co-operative rather than a competitive spirit, with an absence of egos to contend with. This comes about, I think, at having all been in at the start of something that is only now becoming recognised, and having faced similar problems along the way. Birmingham regenerate itself all around is as good a metaphor for this as any."

I’d like to thank all those mentioned in the article, as well as many more who did not get a credit, for all your time and effort in helping me research this article. Power to the Midlands - I hope I’ve done you justice.

Rhonda Wilson can be reached on <stl AT custard.co.uk> ;

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Magical Mystories: Wendy McMurdo at the Site Gallery

ByJon Thompson

A series of recent, digitally created images by Wendy McMurdo marks the launch of the Site Gallery in Sheffield. (The Gallery formerly known as Untitled.)

As one walks around the space, the traditional wall based images appear to be a series of black and white photographs (bar one). They engender a sense of being some sort of documentary evidence - of ’unusual’ incidents; gestures or interactions that have been graduated by their presentation in a white cube gallery space. This is not to say that the subjects, which predominantly include children, are fleeting glimpses or arbitrary occurrences. In fact, quite the opposite is true, both in terms of their production and their rigorous (almost theatrical) composition. It rapidly becomes clear that the ’photos’ are not records of past moments but instead are constructed with a pixel palette.

Broadly speaking, there are two formal strands to the work. They propose similar meanings but with different emphases. In the first, McMurdo presents us with scenes where the subject interacts with him/herself, either on a one to one basis (as in ’Matthew Philips, Merlin theatre’), or as part of a group (’Lesley Victoria Morris 14.11.94’). It is the sense of authenticity (‘fastness’) at once defeated by narrative impossibility, that creates the overwhelming paradox from which an audience’s interpretations and reinterpretations can emerge. McMurdo subverts the notion of photograph as documentation - of any incident - by making the viewer interpret a more abstract image content, one that is metaphorical or myth like.

Magical Mysteries - Jon Thompson

A slightly different emphasis is explored in McMurdo’s other strand of work, described in the catalogue as "children in the landscape." Here we see awkwardly posed children who have been photographed in a controlled environment and then integrated into landscapes that have a typically traditional quality. The integrations are seamless, yet the studio-lit bodies of the children are at odds with the surrounding light and dark. In ’Ross Needham, Derbyshire 11.4.95’, the boy stands by a forest path like some sort of oblivious time traveller. Oblivious that is to his surroundings, not to the gaze of the camera which, by association, becomes a kind of temporal junction that leads to viewer, photographer, boy and landscape.

The real strength of this exhibition lies in McMurdo’s ability to create work that is neither dry conceptualism nor the expression of an impenetrable personal language. Almost every image manages to focus different aspects of the ongoing debate surrounding art production as we crawl toward the Millennium.

Members Only

ByEddie Harrison

Take a look around the club scene. At first glance it’s a multi-cultural melange, a veritable hotchpotch. But this is the sum of the parts: If you look more closely the image becomes altogether different. Indeed, looking at the present state of most techno clubs, it would be easy to imagine that the joyous unity of an earlier era, the oneness of ecstasy logic, never happened; or that it’s given way to something less agreeable - a trite tribalism, encoded along the simplest lines of divide. And in this segregation, it seems that techno’s become something of a ’Boys Only’ affair, with an excess of football terrace logic. Some techno clubs in this country are now little more than testosterone frenzies of male bonding; difficult enough to deal with for most men, even more so for women.

But deal with it they do. The women who work in this field as DJ’s and producers, club and record label owners; engineers and A&Rs, have to deal with it to succeed. For those who have the necessary nous, or who somehow "qualify", this may be no problem. For others, however, probably for the majority, the whole scene needs a kick up the arse. But how? What’s to be done?

Members Only - Eddie Harrison

Image: Buggy G.R. Riphead

Not an easy question to answer when the problem is so all pervasive. Structures are difficult to change. Women have no choice but to work with the existing system for now, however unfair. It’s no coincidence therefore that a lot of female DJ’s have had their breaks at predominantly gay clubs, where the rules tend to be slightly different and attitudes more open minded. But if the gay scene offers opportunity and hope for some, for women like Julia Thompson - Hex DJ, and one of Coldcut’s Saturday night, Kiss FM contributors - the straight techno scene is a different proposition altogether. "Techno has that hard, male, macho image which can basically be intimidating. A lot of women are playing it out there, but they’re getting a rough deal all in all. To succeed in this area as a woman you either have to be a "sexy babe" type or have a big mouth like me. The whole thing reeks of sexism."Â

Unfortunately this means that there is no natural progression in this field for women who want to set their own agenda on their own terms. It’s harder for them just to fall or drift into it. Assumptions and preconceptions have to be challenged first. Nina Walsh, owner of the Sabrettes label, has managed to make herself successful on both the business and musical side of things, "Yet when I go to a major record company to raise some finance, it’s easier to take a man along for leverage. That’s how bad their attitude is. And quite often he’ll be the one who’s asked the questions, even though it’s my company we’re talking about. It’s frustrating. But I’ve got a real "fuck you" attitude, which works for me. I go out there and do it myself mostly."Â

Which is fine if you’re in the position to adopt this stance, but the less knowing, less confident others who are starting out face a bit of a brick wall from the outset, because the problem lies at every level, from production to purchase, from studio to record shop. Julia Thompson finds the recording studio a particularly challenging environment. "Men are extremely difficult to work with in studios. They don’t really listen enough for a start, and they expect women to be bimbos first and foremost, to provide the finishing aesthetic touch. You have to go in there and confound them by proving that you can actually do something else."

And record shops? "They’re awful. The whole process of buying records is terribly intimidating. Unless you speak the language, and really know what you’re talking about, they don’t want to know you. Very few women are treated as peers." DJ Stacey from Chillin FM agrees. "These shops are for males, and some of them aren’t too keen on even serving women. I’ve had a lot of experience of guys who work these places automatically playing me fluffy, handbag house, assuming that I’m not a DJ and I obviously won’t be into more experimental stuff."Â

Problems also arise in the clubs themselves. Problems which range from being patronised, to pure, old fashioned ill treatment. "If club organisers didn’t run "Women’s Nights" where all the DJs are female then I think things would be a little better," says Julia Thompson. "People only go to these things to ogle the DJs, if they go at all; they certainly don’t respect them. Why not just put women on the bill anyway? What’s the point in making an issue of the fact that they’re women?" DJ Angela Mathieson talks of more directly discriminatory treatment. "I’m often the last one to be paid. Promoters try to pull one over on me with money because for some reason they think that a woman’s going to be easier to rip off. I’ve also had problems with male DJs at various events, ranging from them extending their sets and giving me less playing time, to actually not letting me onto the decks at all."

It would be easy to assume that such experiences would have a politicising effect on those concerned. But in this age of techno culture, stereotypes, it seems, die hard. Although the women talked to for this article suffer from an excess of sexist logic, all but one of them are wary of being branded as feminists. For them, achieving success in the music business - an achievement which demands their co-operation - is incompatible with what they see as an ultimately non-co-operative attitude and lifestyle. In other words there's little or no distinction between personal definition and generic stereotype. Sometimes action, however, speaks louder than words.

Maria Hutt, who works as a booker for ITB, is in the process of setting up a fanzine, "as a backstab to the male oriented aspects of the scene. I feel isolated and, at the moment, I can't voice my opinions. The fanzine will give myself and other women an opportunity to do so. It'll be by women, for women. The other interesting element to it is that women have a different way of appreciating music and I think that certain ironies will become apparent within its pages." Julia Thompson, who is now running and DJing at budding Sunday all layer, The Breakfast Club, has her own ideas on how things can and should be different. "The women at Sub Cyberia (where the Breakfast Club is held) have been excellent. In fact, whenever women have been involved in setting up and organising things I haven't been messed about at all, whereas men constantly undermine women in this scene and even turn them against each other. One of the solutions, I think, is for those women in strong positions to consciously try to get other women involved. Look at the Breakfast Club: The more women involved the better."

It's not that any of these women are anything but positive in their approach to their work: They're out there; They're doing it. It's just that there's not enough of them to mellow the macho excesses of techno culture. One of the problems for women looking to establish themselves is the basic lack of role models. Women involved in techno, like so many other areas, are having to set their own precedents, which is why an element of support and co-operation is essential from both women and fair minded men. More female input and influence on the more male oriented aspects of the techno scene in Britain can only be a catalytic breath of fresh air. Look at Europe. In Germany, techno has provided a cultural bridge between East and West, male and female - witness Berlin's Love Parade - whereas one of the reasons why techno is forever being pronounced dead or dying in this country is that here it's all but ghettoised itself, into a predominantly white, male art form.Â

Welcome to the Boys Club? Hopefully not for much longer.

Memorandum: On Curation, Interpretation, and Resistance

ByPauline van Mourik Broekman

In Memorandum, Siraj Izhar and Josh Oppenheimer, curator and artist/gay activist have set up an elaborate network of information transmission and mistransmission. Using e-mail they have communicated at length about the logistics and conceptual framework of curating Josh's work and church infiltrations, and copied the messages for their audience.

The project's central performance took place in a disused lavatory in London. Here, though timing and structure was variable; curator and artist performed together: The audience was first slowly introduced to the underground space, then Josh fed Siraj ping-pong balls which he spat out far across the room. A ritual recorded by a third participant, Ranjana Choudhouri, by circling the points at which the ping-pong balls hit the opposite wall. Thus the curator is force-fed as messages become concrete objects - difficult to swallow and expelled as soon as they are ingested.

The session culminated in an "unexpected" fire, orchestrated exit and - hushed - panic. Flames shone through the glass paving stones and smoke clouds bellowed into the streets.

Mostly, though indirectly, Memorandum is about the possibilities and impossibilities of human communication, especially using mechanised or virtualised systems such as e-mail. It is about the place different transmission "tools" occupy within society and their ends as carriers of information for people in different positions of power. Total comprehension of any message teems impossible as its origin and destination ,an fluctuate so wildly.

Mimicking the official language of institutions and bureaucracies, the curator and artist’s communication slowly slips in and out of more or less intimate discussions on infiltration, strategy and power. Both artist and curator interpret, forward and hold back. And, in circling these problematic but inevitable aspects of communication, activism and trust, of church-m and media-operations, this Memorandum has managed to get through.

Memories of the Decadence

ByHari Kunzru

At the beginning of the Decadence it was easy. Although we were bored, and though everything had been done before, we were seized with a peculiar sense of potential. Our anomie had something optimistic to it. This was the golden age of our decline.Â

During the Decadence we went for promenades in the poorer quarters of the city, pausing to examine choice deformities, examples of disease or dementia. Soon we began to imitate them, at first only in mannerisms, later using makeup, drugs, prosthetics or surgery. At length it became impossible to tell the fashionable from the afflicted. We thought this a salutary moral lesson, and took great delight in ignoring it.

During the Decadence we ate and drank to excess, until a point came when excess went out of fashion. Then we would revert to the other extreme. Mathematicians told us the attractor governing our consumption was a simple period which, though occasionally disrupted by shifts elsewhere in the libidinal economy, was reasonably easy to map. Manufacturers of luxury foods and the proprieters of health farms, spas and colonic irrigation parlours learned to track the so called Bulimia Cycle, and for a time such businesses became extremely profitable. Soon however, activity became so intense that the pattern was disrupted and our predictions went awry, setting in motion a wave of bankruptcies, suicides and social ostracisms.

Image: Nick Green

During the Decadence we gave up sexual intercourse, substituting for it various kinds of fetishism. We refined our tastes, narrowing their range and fantastically increasing their complexity. Certain people became interested in abstraction, concentrating perhaps on household objects or patterns of light and shade. Such citizens were known to climax spontaneously at the sight of a safety pin or a line of red tail lights stretching forward along a dual carriageway. One celebrated rouÃ© took his pleasure entirely from the contemplation of lipstick stains on the rims of Waterford crystal champagne flutes. He claimed this stemmed more from an appreciation of colour and texture than any displacement of the presence of a woman onto the glass.

During the erotic phase of the Decadence, combinations of time, place, mood and the presence of physical objects became ever more specific. An increasing percentage of resources were dedicated to sexual research and organisation. Orgasms began to require corporate sponsorship, a trend which reached its apogee in the meticulously-planned bacchanals at Nuremberg, Jonestown and Hyde Park. The latter, in which an estimated two hundred thousand people participated in a ritual designed solely to produce the little death in a middle-aged software billionaire, was considered the highpoint of the movement. A cluster of massively-parallel processors were connected to a variety of front-end delivery devices. When triggered they instantiated patented pleasure-algorithms in the crowd, causing runaway positive feedback which was gathered into a series of giant cells, amusingly styled to represent luminous *linga* and *yoni*. When the charge had accumulated to a sufficient degree it was fed back via a fibreoptic core to the Park Lane hotel suite where the entrepreneur lay, bathed in the glow of his hi-res monitors. The crowd themselves, devotees of the influential cult of auto-erotic consumption, financed the event through ticket sales and the purchase of various items of merchandising. The energy generated by their activity produced a small quantity of almost-clear seminal fluid on the raw silk sheets of the billionaire's bed, and augmented his bank balance by an estimated twelve and a half million pounds. It was thus considered a success and plans for a two-hundred date world tour were drawn up, only to be scotched by his premature death from skin cancer in a Hawaii tanning dome. Soon afterwards, a fashion for feverish masturbatory interiority gained favour, inaugurating a rage for Keats, broom closets and antique printed pornography. Boarding schools were set up throughout the country. The days of the megabacchanals drew temporarily to a close.

The involvement of large numbers of people in organised sexual experimentation necessitated the development of information networks, directories and algebraic search engines dedicated to matching those of compatible tastes. Nymphets were put in touch with elderly professors, cyborg freaks with the manufacturers of Japanese industrial robots, those interested in coercion with those who wanted to be coerced. This last category caused some problems among purist dominants, for whom the desire to be coerced disqualified some candidates from consideration as slaves, concentration camp inmates or members of religious orders. A standard disclaimer form was quickly developed. Willingness to sign meant automatic barring as an involuntary submissive. These questions of consent were handled by the Society of Sadean Solicitors (SSS), whose obsessive fascination with the Byzantine complexities of this area of law never once led them to waive their exorbitant fees.

During the Decadence, eroticism itself was only a passing fad. The information network which grew up to enable efficient sexual contact became itself the object of our interests. Connoisseurs of classifications, indices and filing systems paid astronomical sums for rare databases. We became collectors of objects, not from any particular interest in the things themselves, but simply for the opportunities they presented us for cataloguing. Some citizens rejected computer automation

altogether, taking great pride in feats of card-indexing. Cross-referencing by hand became an art as much appreciated as sculpture or the programming of combat games.

We soon developed an acute awareness of taxonomy. Classification according to phylum, genus and species became *de rigueur*, not just for biological material, but in many other fields as well. Televised public debates were held over the correct designation of common phenomena. They were conducted along the lines of medieval theological disputations, and took place in a studio mocked up to represent the cloisters of the twelfth-century University of Bologna. The only anachronism was the pair of bikini-clad girls who operated the digital scoreboard.

We engaged in a passionate love affair with hierarchies, all the more intense for our awareness that they were meaningless, even ridiculous as tools for understanding our distributed, networked world. As the ebbs and flows of our frenzied culture became more extreme, we turned to the verities of dead, static systems to comfort ourselves, soothing the ache of the data pumping faster through our bruised, red-raw flesh. We relearned Abulafia's Caballah and studied the circular taxonomies of the Catalan, Ramon Lull. We rejected Watson and Crick for Paracelsus and John Dee, embraced Galen and the four humours, studied the Tree of Knowledge, the Body Politic, the Great Chain of Being and the angelology of the Scholastics. We wept at the beauty of the Metaphysical Grammarians, and yearned to know the true Hebrew God spoke to Adam before the flood.Â

Eventually the cult of learning collapsed altogether and with it, the preoccupation with self-definition which had driven the entire early period of the Decadence. Citizens no longer cared to record or understand the minutiae of their personal experience. They left themselves unexplored. After the collapse of all extant systems of knowledge, a feature of the early decadent period, subjective experience had become the only reference point for establishing meaning or value. Ceasing even to ask what one wanted thus became considered the most advanced form of transgression. Embracing this we conducted the pursuit of pleasure in a lacklustre, half-hearted way. If we stumbled on something we liked, it was purely by chance. Maybe we would return to it. More often than not we would limp off somewhere else. There were many casualties. Service industries suffered dreadfully. Aesthetics collapsed as a discipline.

During this critical period of the Decadence, we did whatever we could to avoid the act of choice. We chose our political leaders via a lottery, and organised our social lives by an ingenious system of random number generation. Many citizens abandoned even their most basic body functions to chance. Gambling disappeared as a pastime, since none of us were interested in beating the odds.

Pure randomness soon fell into decline. Some definition returned, though our codes were still fuzzy, unclear and imprecise. The *vague vogue*, as it became known, lasted for some time, though the inexact measuring systems in use during this phase render impossible any accurate statement of its length, impact, or intensity. It was a time of rumour. myth, superstition and nameless fear. Certain revisionist scholars have accordingly refused to recognise it as a historical entity, since it seems in so many ways continuous with the rest of our troubled, fluid times.

Having exhausted the most arcane possibilities of body and mind, having become bored with boredom itself, we began to adopt postures of total commitment. Ideologies were formed, wars fought, and causes died for, all in a spirit of absolute hedonism. We believed because it pleased us to believe. Our crusades and jihads were as bloody as any in history. We performed breathtaking acts of self-sacrifice and exacted violent retribution on our enemies. Bizarre monotheisms arose, whose fiery ill-worded theologies afforded ample opportunity for schisms, heresies and apostasy. There were public crucifixions. Young men with faraway eyes held their hands in flame rather than sign documents of recantation. Soon totalitarianism swept through our cities, bringing tanks and napalm in its wake. We

covered the earth in ashes. The devastation ushered in a period of mourning, during which we wept rivers of tears, planted trees and erected monuments whose poignancy matched the vastness of our remorse. Joy followed hard on the heels of our mourning. Lassitude followed joy. Our prophets and scientists ran simulations to predict the next lurch of our communal whims, but each time their code was outdated as soon as it was compiled. The cycle ran faster, cults and movements swarming like flies on a carcass, paradigms blooming and withering like exotic cancers. Soon there was only speed, a sensation of pure intensity.

Then one day the Decadence ended. We began to be moderate in all things. Our decisions were considered, the product of sound judgement. Our institutions stabilised and prepared themselves for steady growth. We quoted maxims to each other. "A little and often". "Mens sana in corpore sano". Now our economists have quelled the speculators, advocating co-operation and a sound industrial base. We believe in the family, in community and an undefined spirituality, though if you asked us we could not tell you why. Debating is of no interest any more. We want a quiet life. "All to the good", as we often say to our neighbours. We are content. And yet... And yet there is something stale in the air. Citizens whisper in the social clubs. They say that it cannot last.

Hari Kunzru August 1995

email: <hari AT juju.demon.co.uk>

Mutual Reality

ByPeter Steersman

Opens an approach to MEDIA, its present, its future.....The emphasis will be on the exploration of existing media, be it high-tech or lo-tech, and the way they can co-exist. It will be process based with the emphasis on the synthesis of different media making a "field" work.

There will be an emphasis on digital media and the issues they raise: form over content being the major issue, and the way forward.....

Mutual Reality is not a philosophy or a manifesto. Its concerns are with actuality and virtuality: the actual creation of new forms and what they embody. The creative approach will be similar to the base to apex workings of Ron Brooks' "Subsumption Architecture" which allows for a non-prejudicial approach so necessary in the "Digital community".

Mutual Reality - Peter Hodkinson

It is hoped that a real dialogue will develop and real (or virtual) works will manifest.

At present most of the innovative new works can only be experienced in the Underground/Techno clubland, Mutual Reality's aim is to try and extend the range to new venues: Installations (interior and exterior), permanent/non-permanent sites, and anywhere the creative virus can infiltrate. It may even be architecture!

M.R. will also address the complacency of the existing "Art Scene" by producing something it cannot ignore. M.R. is autonomous, its spirit a kind of Techno-Dada. Its basis is the melting pot of the emergent cosmology and the undermining of constricting hierarchical structures [of any kind] and it exists in the realm of "Why Not?" and "You Know Who You Are".

Mutual Reality has come about by talking and listening to many people and I am proposing it as a fluid base to address the issues now facing us all, I regard myself as a contributor. Mutual Reality is hopefully a MUTUAL REALITY.

Ongoing projects:

Chemical Paintings (Cyberia and Subcyberia)

Lum-Chroma - Electronic music and light visual, installations.

Alien Circuitry - extensions of "organic circuit diagrams" transmission placements.

"How to gain permission to erect Revolutionary Barricades". Evolution media, communications, things that work.

Fix website: http://www.widemedia.com/fix/

Address: Subcyberia, 24 Scala Street,

London WIP ILU.

For more info, contributions, contact: <peter.steersman ATÂ easynet.co.uk>

Osmose

ByCharDavies

"OSMOSE addresses our relation to the natural environment [i.e. wild nature]sic by using the medium of immersive virtual space to encourage gentle interaction and serenity - instead of violence and aggression -while offering an opportunity to experience a sense of profound re-connection between self and world."

BUREAU TESTIFIES: Oh please CHAR. Whatever natural osmotic tendencies the piece OSMOSE was named for [this remains a blur] and claims resemblance to [who can really tell] the metaphor can best be used in explaining the story left out of all of the evangelical verbage around the piece - the osmotic relationship of technology leaking across a membrane of exclusion towards a greater concentration of money. N.B. osmosis in the biological sense [i.e. wild nature] is when water crosses a membrane towards concentration equilibrium: why dehydration results when you salt, sulphur or otherwise create an [ion] concentration gradient, why fresh water fish dehydrate in salt water and saltwater fish balloon in fresh water. The simple equation OSMOSE suggests is to put money within

the institutional membrane of the gallery and watch the technology flow to bloat. Concentration of technology towards money...

CharDavies is VISIONARY. Creator of OSMOSE, Director of Visual Research [and incidentally Spouse of Company President] at software company giant SoftImage [incidentally a major sponsor of the work]. The bulk of the velcro-zipped matte-purple CharDavies/OSMOSE media kit, the prominence of the OSMOSE signage, the sheer mass of the hors d'oeuvres trays at the OSMOSE opening reception signal the presence of a not unassuming exhibit.

OSMOSE [CharDavies]

Image: Char Davies, *Osmose*

COMPUTER ANIMATION FINDS NICHE IN MUSEUM the Montreal Gazette Aug25 marvels.

CharDavies: "One woman expressed it best: It made me feel like I was an angel".Â

OSMOSE is precisely a 20 minute experience. The IMMERSANT, assisted by 2 VR valets assumes mediation of a strap-on breathing/balance interface vest and head-mounted stereoscopic display [strap-in time approx. 5 mins]. Navigation enabled via in/exhale detectors and motion sensors on the subject body; immersant point-of-view is beamed to vicarious sidecar audience in the dimmed room adjacent via stereoscopic video projection and disposable 3D glasses. A one-to-many transcendent experience.

It is not enabled to sublet the prescribed OSMOSE/BIT immersion time into two 10-minute VR QuickDips, the virtual valets are adamant: there henceforth develops this split bureau perception intraBIT / extraBIT.

[CharDavies] - "It's very important that this technology be used to express alternative world views. 3D computer graphics is a very powerful visualizing technology. It's not value free".

intraBIT "Immersed" in CharDaviesworld, feeling disoriented and absurd one has to draw on what ever knowledge one has of the piece to try to make sense of it.

I would like to talk about the content of the piece: a blurry tree, a random selection of quotes from philosophers and thinkers that have little to do with each other, some more blur - that was clouds you are told by the man who has fixed you into the contraption, some bits of the code that you guess are used in the piece, but like the quotes are disconnected and jumbled ... the usermanualman at your side, while you are "submerged" in the piece, explains that there are five layers, but you can't bend down too much because the proximity sensors between your back and the floor make the images go up [i.e. to make you feel like you are going down] and you go into a speedblurloop which is not what they want you to do. The voiceatyoursideman suggests gently that you can explore inside the leaf. Zooming in you go into total greenblur - there is no detail except the occasional unantialiased jagged edge. I wonder at the brilliant interpretative insight of this artist to make the leaf green! The emptiness of the tree representation is a little difficult to take seriously, bereft as it is of any exploration of either the phenomenon of the tree or how it is taken to be meaningful - I can say nothing more. [But I will proffer two pieces by way of comparison that do detonate legible reactions. One piece by rigo95: a one way road sign reauthored to read "one tree". In two word wit, demonstrates the tenuous appropriation

and absurd relationship of tree in the immersive environment of the urban technology we live in. Another piece by Jeremijenko is a symmetrical twotree arrangement hung in parody of architectural symmetry, one tree growing up and one growing down. The tree growth ripped from and suspended amongst the 3D architecture opens a contemplative relationship as the slow growth and the actual phenomena of the inverted tree turns its new shoots around to grow upright. Trees can be potent cultural icons for the artist if used with a trace of wit or imagination].

But to detect the marshall mcluhanism overriding the sappy images OSMOSE renders... something about the means of production, the medium .... why charpainter is using the vr environment when it does nothing to threedimensionalize the images, does nothing to brim them into the spaces of cultural exchange. These are flat images - they reperform painting, make it a reified production and do nothing to engage the public imagination. It is the equipment itself that engages, the spectacle of vr - that unfortunately dearDavies does not engage. So "immersed" in the CharDavies piece, feeling disoriented and absurd, one has to despair the katemossthiness of the atmosphere.

extraBIT From the ante chamber in 3D blurscape, the meaninglessness of the immersed bureau agent’s movements provide a patterned background to some disengaged reconstructions.

It occurs to this bureau member to wonder what worldview exactly is being advanced by this the GENTLER-OSMOSE. Overtly constructed against models of military/scientific VR interactivity-bydomination, this simulation boldly reduces all possible experience to an exquisitely rendered narrativeless digital swamp. This is the cut less edge of the VR float tank - no hard surfaces, few distinguishable forms, no objectionably large objects, no scale adjustments no social pressures no disturbance. The supplicant in superb isolation wafts amidst abstract amorphous elements vague transitions and kleenex-focus pastels, a morphine haze of compulsive serenity, the electronic mushspace. Anchorless, groundless, some might say pointless.

OSMOSE [CharDavies]

Image: Char Davis, *Osmose*

SHORT SIGHTED? In her research to recreate a unity of self-interior and world-exterior "eliminating the Cartesian duality between body and mind that has played a part in the shameless exploitation of nature by man", a catalysing process took place in the early 80’s when CharDavies removed her contact lenses and rediscovered space. This probably explains a lot.

SONG OF OSMOSE: the audio is a soothing aeroplane-embarkation mix for Spatialized Sound [i.e. moves when you do]: elevated voice-synth music that imparts an approval of the human [CharDavies: "Sound brings a lot of emotion to the piece"] it filters out the weight of a borrowed SGI humming unobtrusively somewhere in the background like a quality digital refrigerator. An easily-overlooked piece of techno-trivia. This system runs quietly on a $1.4million Onyx on loan from Silicon Graphics, a mainframe benevolence normally reserved for militarybusiness and gameviolence favours. [It asks absent world questions like why, and what such a machine would or even could be doing if it wasn’t here...]. It carries about the emotional range of an imported flock wallpaper catalogue.

The intense vagueness of immersantworld is equalled in degree only by the rigorous precision of OSMOSE operations infrastructure: demands days-in-advance reservation [heavy preference to Press], security entry [appointment privilege is one hour prior to museum opening requiring op-camera

identity validation armed guard cross-referenced approvaling, entry escort plastic nametag], and the two contiguous VR pre-show valetmen making complex technical moves. Somehow obscured in the intricate promotional encyclopaedia is any reference to the paper signed on each embarkation, relinquishing OSMOSE responsibility for any IMMERSANT's personal/mechanical failing while under the influence of the art object. Immersions of less than 20 minutes distinctly disallowed as insufficient to exert the lobal lull necessary for full impressionability.

"The immersive experience encourages serene gentle and contemplative behaviour" [CharDavies] - it is force-gentling in a general padded cellular team; the gathered witnesses to immersion; the public testimonials of overcome users direct quote I'M A PHILOSOPHER AND IT REALLY IS AN ALTERING EXPERIENCE A COSMIC CONSCIOUSNES TYPE OF EMBODIMENT WHAT I ALWAYS THOUGHT WOULD HAPPEN TO ME AFTER I DIED. NOW I'M NOT AFRAIDendquote.

intraBIT POSTSCRIPT: There is another performer that capitalises on the spectacle of technology to get outlandish attention, a little more honest and blatant in his tactics of exploding people rather than just dumbfounding them: the unabomber - america's own vigilante antitech postal detonation master, has been disturbingly successful in making himself heard. An audience out of reach of CharDavies, despite the money, despite her booked out viewing sessions in the gallery. They both make the same conceptual slip though - that somehow in the complexfabric of contemporary society one can extract the material conditions of existence [ie technology], and that we are all complicit in using, creating and understanding a certain solitude, devoid and different from the social contest configured in the way we live and the technologies we use.

Perhaps Char could take her naive naturenostalgia and contrived technoblindness, her jungle of quotes, and marry mr unabomber technodemoniser, pledge troth in concomitant deafness to the intricate social possibilities that cut through the machinery of capitalism and living, make little virtual bomb babies. Like the marriage of presleydaughter and michaeljackson...

But back to Char who, unfettered, makes a great story. Years ago when she visited the bureau's own vr lab, and was still one of the directors of SoftImage, she demonstrated the software and sung its glories. Struggling with a less capable rendering engine, a young bureau artist asked Char how to get access to this equipment for a project not having the requisite $30000 for a license to buy SoftImage. Char turned to the starry eyed aspirant and said bluntly, "start your own software company". Probably not bad advice to a young artist many of whom still expect some sort of elite patronage and are never clued into the difficulties of maintaining a critical practice outside of the mainstream ideas of work. It does though seriously jeopardise the validity of cultural worker/visual artist as valuable social contributor. The imperative she presented in her answer [not so original] was that you buy yourself a cultural voice, or bomb yourself one. I don't know which of these I find less appealing or more drastic; the latter at least involved some degree of imagination and technical expertise. Undermining her own value as artist she has had to buy into the corporate idea and explore the immersive environment of commercialfrenzy.

GAMEOVER bureau of inverse technology

intraBIT / extraBIT

Ping

ByPaul Miller

Paul Miller at R1 - also at the Siggraph 95 Interactive communities, data visualisation with a difference

After Web world disappeared off the map many of us thought we would never see its like again. I had only just got hold of a computer powerful enough to see it properly when it mysteriously vanished.

That was then, but this is now:Â

The PING PROJECT is infinitely better visually and much more user friendly, sometimes I just surf it to get the visual translations of where I've been.

The following is an excerpt from a description by its creators and curators.

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INTERACTIVE NETWORK TELEVISION, VIRTUAL LANDSCAPE, EYE AGENT

INTRODUCTION

Ping: a visual datascape on the Internet. Ping: accessible via the interactive map on the World Wide Web

Ping: a self-generating movie broadcast via various TV-stations

PING Paul Miller

ABSTRACTÂ

Ping is a virtual landscape created interactively by the Users of the Internet. A virtual camera device called 'eye agent' automatically renders a flight through that landscape, which is then broadcast on TV. The potential feedback loop of the TV-watching Internet User creates the notable dynamics and dramaturgy of this self generating movie.

INTENTIONÂ

The main idea of the Ping-Project is the visualisation of the Internet and the generation of a real time movie created on a world wide basis by Internet Users. Originally Ping was intended as a visuÂ-al ride through the Internet in the programme-free time of various TV stations. The Internet as a world wide medium has created an interdisciplinary structure by merging science, entertainment, arts, politics and other disciplines. The goal of Ping is to make this structure visible and to create a cross-cultural communication basis.[...]

STRUCTUREÂ

The three main components of Ping

- 1. The interactive map sited in the WWW
- 2. The eye-agent (virtual camera)
- 3. The datascape

The interactive map

Users can see and change the interactive Ping-map in the WWW in real time by choosing a spot on the map where they want their objects to be placed.

Images, movies, sounds, geometric models and live-sources (e.g. live camera-views e.g. live images of Users in presentation environments) flow from any part of the networld via the map into the thereby generated datascape.[...]

The virtual camera (eye-agent)

The eye-agent acts like an editor or journalist, who is currently attracted by new images or movies on the datascape, broadcasting these viewed images directly. The choice of images can be made according to personal interests: the characteristic of the eye-agent (e.g. speed and viewing parameters) can be tuned individually for the TV stations or programs (e.g. movements for a techno-video like appearance may be tuned differently as for a scientific research program). By moving around on the datascape, the eye agent is the controlling instance for what is being broadcast on TV.

The datascape

The visual datascape is composed from all Ping-map elements. The 2D objects arriving on the map in the WWW are translated into 3D objects and are then integrated in the datascape. [...]

INFRASTRUCTURE

The Ping mapper runs as an active document under the ART+COM http server, which is accessible from the Internet through a 64kBits-1 link. In order to render the eye agents view into the datascape in real time and broadcast quality, we use a 4 processor SGI Onyx with Reality Engine 2 graphics

hardware located at the ART+COM site. We implemented the eye agent based on the SGI Performer programming library. For demonstration purposes, the eye agents datascape renderer may run on any SGI IRIS workstation at respectively lower frame rate and resolution than required for TV broadcast.

Rages of the Pop Market

ByCaroline Smith

In the early 90's, I interviewed Corinne Day for the German photography magazine, Profi Foto. Day's photographs in The Face, I-D and British Vogue became emblematic of the grunge label, marked by wasted, strung-out teenagers. Day became a celebrity herself, launching the career of Kate Moss and finding herself at the centre of moral debates, not least the rise of anorexia nervosa in teenage girls. Her intention was to dispel with the material glamour circulating in the 80's and show what it was really like to be an adolescent, a Generation X-er. "People can't deal with seeing reality," she said. " It's interesting when people hate the pictures taken during their adolescence because they can't relate to being a teenager."

Mid 90's, gritty realism's remnants and its lost teenagers have finally filtered through to mainstream advertising, for example Calvin Klein's perfume, CKI campaign. But there are a barrage of articles decoding this near-dead style which take a moral stance. One featured in the Independent drew a sharp line between advertising and editorial photography. Corinne Day's 'original' fashion imagery was seemingly being ripped off by the large corporate advertisers. The bottom line concluded that advertisers should shoulder some responsibility in their portrayal of youths. This type of 'decoding' currently favoured by the media runs parallel to sensationalist reports on increased drug use amongst 14 year olds upwards. Counter culture, the media seem to suggest, the one-time domain of fringe sub cultures and its outlaw members has punctured the mainstream to become central to I new' youth culture. When one of the founders of "The Herb Garden", an 'alternative' British fanzine for "boozers, users and losers" wrote a strident attack in The Guardian which criticised the "dull, patronising and potentially dangerous" approach to drug reporting, the published article was watered down to that of the tired ramblings of a family man living on a council estate (Guardian, July 1995).

Rages of the Pop Market - Caroline Smith

This message presupposes a number of myths on the part of the consumer. Firstly, that magazine consumers separate advertising and editorial photography, deciphering only advertising campaigns as 'the sell'. Editorial spreads are thus somehow removed from the mechanics of desire and consumption. The idea of the consumer as the eternal passive dope still prevails. Another myth presupposes that photographers creating the trends are purist innovators. In fact photographers Corinne Day and David Sims have done their own bit of borrowing from fine art photographers such as Larry Clark and Nan Goldin.

I want to address our passive dope and look at several types of mid-nineties iconography, no longer one set movement in consumer culture and explore the relationship between the need to constantly create the brand new and new technology.

Images intensively manage our identities, presenting our multiple selves through consumption. This is increasingly evident in the current tide of media-literate consumers. Identities can be bought. Youth generation is harder to define and harder to reach not because of the increasing battle for new products crowding shelf space, rather because youth itself is up for grabs. Muriel Grey at a recent MTV conference, for example, kicked off by saying that she didn't want a discussion on the definition of youth culture - it was too complex and meant different things for different markets. But it's evident that the consumer is no passive dope, rather is able to freely pick and choose faced with such a diverse landscape of products. And familiarity for those products comes early. Susie Orbach wrote that kids learn corporate recognition before their 3x table. Kids may be too young to see a movie, but they can still buy the off-spin merchandise from the shop.

Also evident is that current youth advertising is increasingly about the authentic - the product that claims a space in the lived world - that stretches beyond the early 90's in-your-face iconography of gritty realism. One of advertising's focal points seems centred around the snapshot, the frozen slice of family life. Traditionally, snapshots were stuck into the family album, hidden behind thick covers, looked at as a leisure pursuit. However now they are scattered around the house and spliced with other bits making up everyday experiences - haphazardly stuck onto the fridge alongside memos, lists, drawings; propped up on bookshelves with clippings; taped to the wall with posters of pop heroes or football teams. They become icons. Larry Clark photographed collages of snapshots and clippings stuck on his walls for his book "the Perfect Childhood", which suggested to New York critic Andy Grundberg that the "self confessional mode" was in fashion (New York Times, 1990). People reveal their intimate snapshots in domestic space not to capture a memory of 'the time when...', but rather to activate their presentation, how they appear at that moment. Photographs do not act as souvenirs of lived memories, rather they act out a present state of play. Advertising imagery seems to reflect this trend. Always concerned with offering a way to the consumer of presenting the self, it uses the snapshot as an icon. The campaign that uses the snapshot immediately addresses the moment, the fragment of 'now'. Through the use of the snapshot, it can intimately address and reaffirm the collections of snapshots circulating in the home. Incidentally the domestic space has long been proven to be the most effective selling environment. "Confessional mode" dips into advertising - the image authenticates the product, claiming a real life beyond its value as a potential purchase. Witness Pepe Jeans' campaigns and their collages, logos and statements around individuality. The logo "kids'll love 'em" splashed alongside a plastic-wrapped dead frog from the biology lesson captures "Young Ones" - style school as an archaic institution. It talks to the 1624 year old Pepe audience about another, younger 'kids' sector and casually reminds them that we're all in the same tribe. Self-presentation at its most effective.

Rages of the Pop Market - Caroline Smith

Teenagers' bedrooms now see ripped out adverts from magazines pinned alongside pop heroes. The adverts themselves have an iconic status beyond it representing the product. The image used to represent the product and sell an idea. Nick Kamen's appearance kick-started the tremendously successful Levi campaigns some 10 years ago, launching his career. Fans would stick his pin-up on

walls or school books, now the difference is that the ad gets cut out and shown. The image takes on a more sophisticated role that used to be the sole preserve of the product.

Digital communications offer more ways of "being there", cutting across time and space to bring large groups of people together. Britvic Ltd. have introduced an on-line service and a successful telephone line which has currently received 2 million calls from Tango fans. The product provides multiple channels available for consumers to connect. The product and its offers become woven into everyday teen life. The message: Tango will always be there. Media-savvy consumers know it's a sell, but what the hell? It's entertainment. Britvic have also introduced the Tango orange doll, now a familiar sighting in dance clubs, not least in a Leicester haunt where ravers, according to Mary Sweeting, the company's Press Officer, shout "Go Tango Go" to the orange doll imprisoned in a hanging cage amidst laser lights and dance music, hoping for the Tango effect as seen on tv.

Rages of the Pop Market - Caroline Smith

With the brave, new world promised and fetishized by new technology. there's a tendency to unhinge digital imagery from a climate where the dominant message is a prevailing cultural pessimism - disillusionment with older values, the nuclear family, politics, long-term job security. Parallel to this runs the myth of a utopian future as we approach the millennium, that technology will allow/force us to radically break from the past and the future will be unrecognisable from the past and present. When the Youth magazine "G Spot" launched, it was with the declaration that the magazine was the voice for a new generation. Cutting through the marketing hype, is there a claim for a 'new' generation home-grown on new technological developments? It depends what the I new' means. Certainly, this is the first generation fed on a diet of computer games, computers in schools and aware of virtual spaces and realities. A logical reason why "G Spot" soon fastened onto gameboy culture and steadily flavoured its content with digitalia. But the way that New Technology is diffused into markets is by hanging New Technology onto the familiar signs and symbols accumulated by photographic history. Everything refers back to older times, rehashing older generations. Fashion spreads may declare the current season as "minimalist, not retro", but it is borrowing a name of an older game. Culture is spurting out a scrambled new/old, the only difference is the new/old is now accelerating at a faster rate. Advertising embodies this new/old style by appropriating the 'new' images to suggest the simulated. It relies on consumers understanding advertising's mechanics. The latest album release of Jimi Hendrix's music, the "digitally remastered" experience, is sold as superior to the known and live Hendrix because it's new, it's been produced by New technology. Hendrix lives on, but lives on better than before. The past is only relevant in terms of presenting the new as "better than". A gold embossed hyper-Hendrix appears on the album cover. After all, he's dead, so he can't look as if he's walking around. He exists on the computer, his music is in the computer and it's Better than Before. The image of Canadian Richie Hautin from the band, Plastikman is a computer logo. Zipping up his mouth, computer animated icons over shades, his personae is an artificial signature. The image is associated with the new, suggesting the brand of Plastikman's music but it relies on an understanding that tried and tested album covers carry public personas and that the newness associated to Plastikman hangs onto the new sound of the band.

Finally, McDonald's' latest tv campaign recounts an older man in the future reflecting back on his current childhood. Mainstream 'soft' techno-culture is seen with the boy's visit to the simulator game and scenes are freeze-framed in McDonald's to suggest some snaps taken in the restaurant for the family album. These snaps look as if they have been digitally retouched to suggest the past - the colour

red is reminiscent of a 60’s old Pepsi commercial - the cheesy-framed, slightly stagnant smiles remind us of old family snaps and the time spent waiting front to the lens. But even if the images weren’t retouched, it doesn’t matter. What’s important is the past, present and future. The use of the technology in the advert is fetishized from the visited game through to the colours in the snaps, implying that photography (in the future) is a dated family craft. I would conclude that digital imagery and associations with new technology are filtering across advertising. It’s a powerful tool to suggest the new, the authentic and is able to offer intensive channels of communication and increasingly become seamlessly woven into our everyday live. But however ’new’ the technologies appear, imagery can never be Brand New, it can only represent ‚new’. Otherwise it wouldn’t hang on to the familiar, and would sever itself from the recognition required for consumers to both present and buy into their identities. That familiarity is fundamentally dependent on photography and the codes it has accumulated in its still relatively short history.

(from Agents of Change, 5th National Conference of Photography, September, 95)

Realtime Graphics and the Importance of Fish

ByDaniel Jackson on Siggraph 95

Fish are leading the way in cutting edge algorithms for realtime graphics. Application developers should take heed of these revolutionary new trends.

This year’s Siggraph in the Los Angeles convention center impressed upon me some of the aspects of the relationship that industry and academia have with each other. The conference is an important event with regard to this as it presents a good overview of that which is going on in these different areas of cutting-edge computer graphics. Siggraph succeeds in doing this by hosting one of the most important trade shows in this rapidly developing and exciting industry; companies will often make their most important announcements here. Silicon Graphics presented project Maya (their new software which will combine both Alias and Wavefront which they recently purchased), and SoftImage, purchased by Microsoft, announced that they are porting their software to the Windows NT platform). In conjunction with this are exhibits by artists, games developers, community groups and academic institutions of their latest applications of computer technology. The raison d’etre of Siggraph and traditionally the focus of the conference is the presentation of papers, panel discussions and workshop sessions in the latest techniques and discoveries of the field. In these sessions the leading lights from the games industry, the film and special effects industry, academia and so forth, presented papers in the technologies, procedures and new discoveries used in the development of their specialities.

What made the event memorable for me was the combination of a technical demonstration by Silicon Graphics and a paper delivered by Demetri Terzopoulos from Toronto University. I believe taken individually they both had their weaknesses but that considered together the significance for realtime graphics is mind blowing.

The Importance of Fish - Daniel Jackson

Silicon Graphics, known for their technical brilliance in creating some of the world’s most powerful and expensive graphics computers, presented a mind blowing demonstration of the latest incarnation of their triple pipeline Onyx. The Onyx is designed specifically for realtime 3D graphics and was fully loaded with lots of dedicated hardware. The most impressive of their demonstrations was the realtime museum. It impressed through the high resolution of the displays; the quality of the texture maps; the realtime reflection maps in the marble floor; the realtime spotlights; the high polygon count of the models whereby when you flew up very close to an edge of a cylindrical column intersecting the ceiling you could not see any starring lines; the paging of video from disk onto TV screens in the museum; the quality of the central exhibit in its reflection of the entire space; the refresh rate of 60Hz which means that the visual perception of lateral movement is hyper-real (film uses only 25 frames per second and fast panning movements are unpleasant). The reason why I found this so exciting was that for the first time one is beginning to see realtime actually exceeding the quality of pre-rendered animation. The high resolution output and high frame rates mean that because of the legacy of broadcast and film mediums realtime is starting to and will increasingly offer something which is a new experience and undoubtedly create a completely new medium for entertainment and for artistic expression.

One criticism that could be levelled at Silicon Graphics is that there isn’t really much going on in these worlds. Maybe Demetri Terzopoulos could help them out there. He delivered a paper and presented a spoof Jacques Cousteau video of his Artificial Fish. This video was also shown at the Electronic Theatre (the presentation of the best computer graphics over the last year, including sneak previews of forthcoming movies such as Pixar’s outstanding "Toy Story"), but was not appreciated out of context. His fish were truly intelligent, in as much as fish can be: there was no scripted animation. Their movement was determined by a rule based system which involved the fish learning to swim and which other fish were predators or prey. Their swimming action was determined by their muscle structures and experience. The system involves other aspects such as mating behaviour, a physics based environment, in this case a predator shark, schools of fish and stereoscopic retinal imaging. I will not attempt to go into the details of this system but it suffices to say that the fish "ecosystem" were in no way predetermined apart from the rules of the system and the physical characteristics of the environments.Â

Okay you may say that fish are pretty easy; they have one of the shortest memory spans, their behaviour can be modelled by relatively simple rules and they don’t seem to express any. What we really need are intelligent human characters in our realtime environments and these techniques are suggesting ways in which we can achieve this. In terms of realtime we are in the early days still, but if we can marry the technology of the likes of Silicon Graphics and the algorithms developed by academics and programmers in industry we are going to witness the birth of an incredible new medium over the next 10 years or so. It is already happening in the games industry with the recent launch of the Sony PlayStation and a catalogue of new 3D games, but as always we need more computing power and equally importantly we need the techniques to develop these applications. These techniques must involve character intelligence and expression which due to the nature of realtime cannot be predetermined if we are to create convincing and engaging experiences. As games magazine Edge says "The future is almost here" but we still need to do some work on our character animats if we are to realise the potential of machines such as the Onyx.Â

For further information on the fish, visit Silicon Graphics at:

<http://www.sgi.com/>

In the City 95

ByTony Martin

They don’t know what’s going on, ha! They really don’t.

Having just emerged from In The City, an international music seminar based in Manchester, not only am I convinced that they don’t know what’s happening, but also that they’re really scared. You *must* have realised by now that I’m talking about record company executives. You didn’t? What, you thought that the music industry was out there on the cutting edge, ear to the ground, all those movers and shakers. .....Nah.

You would have been forgiven for thinking that each and every delegate had been issued with a shovel when they registered, enabling them to disappear and dutifully bury their heads in the shag pile of the Holiday Inn, where the conference took place. Their sad greying pony tails may still get erect at the prospect of signing the next Big Thing, but they wouldn’t know how to use the Internet and W3 to help the next Big Thing to stay bigger for longer, even if it dropped on them from a great height, slapped them across the face and whistled the latest Oasis tune. They don’t know it exists.

You’d better get that coke habit in line guys, you’re going to be out of a job.

In the City 95 - Tony Martin

You’re getting this perspective on the proceedings from The Music Network. We’ve seen this stuff from most angles: As recording artists, freelance music programmers, producers and remixers. We now have a company that authors and designs Web for the music industry. We also have our own record label. I promise we’re qualified.

Last year’s event saw the inclusion of some heavy duty hints that technology was going to change the industry. It was said that a sea change was afoot, akin to what happened when CDs came on the scene. A lot of the big boys in the industry acknowledged that some stuff was happening, but dismissed most of the advances as being purely technology driven, with no place in the real world. Toys for geeks.

This year, they all knew what the web was. They all said things like "URL", threw the occasional "well, when I was surfing the net the other day..." into the conversation. In fact they mentioned anything that my Grandmother could have gleaned from the half dozen or so inter-net based magazines that are now around, or the two or three national TV shows dedicated to the subject. Stuff from the movies or the almost daily media coverage of the medium. Well done guys.

Their real knowledge of what was going on was beautifully demonstrated by their absence from key debate panels, not only by this, but also by their lack of representation in the audiences of the key discussion groups. They don’t even want to learn!

At one of these discussions, named "Hype or Hypertext", the only representation from the majors was one Hunter Dubose from EMI’s tech development division. Now, most of the record companies on our little planet were actually at the conference, so where the majors were I really can’t fathom. Must have

been powdering their noses, I guess.

From the start, Hunter was fighting a losing battle against one Ricky Adar, the young and dynamic MD of the audio-online company Cerberus. You see, Hunter's hands were tied by the lumbering corporate that fills his pay packet every month. Cerberus are right at the vanguard of what's happening with audio on-line. They have signed around 250 labels to their company, they have a roster of 75 000 tunes that you can download at full bandwidth CD quality to your computer at home. It'll cost you only 60p a time, with around the same royalty going to the artist that would have been dispatched had you caught the bus down to the record store and bought the tune there. This is really freaking the majors out. They wouldn't place their huge catalogues with Ricky Adar's company. They're like, "Why would anyone want to do that?

The majors, or in this particular instance, EMI's Hunter Dubose, were contesting that the delivery mechanism was insecure. That people could copy the stuff and distribute it freely after download. That the key encryption software that Cerberus have in place was fundamentally flawed. In short, they were missing the point.

While getting his shit together, Ricky Adar, (formerly involved with the satellite industry, he left when he got bored) has been working with MPEG. These are the people responsible for audio compression techniques, reducing large audio files to something that you won't have to wait a year to download onto your machine. Together with Cerberus, MPEG have been getting this down to a fine art (i.e. MPEG level 2 compression) Currently, on the Cerberus site you can get download audio at around 17:1 compression ratio. This alone makes on-line audio a realistic proposition.

The point that EMI missed was that in the future, the near future, people will expect to be able to download audio to their computers at home as a matter of routine. Just like they will expect to request movies of their choice with the video-on-demand set-ups that the cable companies will be offering the majority of households. I don't think that they will forsake their CD collection in favour of having their selection of top tunes sat on their hard drives, but they will want to augment their music collections, maybe check stuff out before they go buy the physical version in the town centre at the weekend. When Hunter dismissed what Ricky was up to, Ricky just turned round and said "so what's the Major solution, then? How are you solving all the problems you say my system has?" Hunter couldn't give any answer other than they were waiting to see what develops over the next few years. Hunter didn't seem to realise that Ricky Adar is what's happening over the next few years. The big companies are sitting round thinking the Techno Bogie Man will go away. I tell you, it won't be long till they're queuing up outside the door of Cerberus saying "Please Mr Adar, can we license your audio delivery software from you, and pay you a f**ck of a lot of money in the process?" Ricky must be rubbing his hands with glee. Come to think of it, so are we at Music Network. Aside from the impressive display of wares from Rise Media (fronted by Simon Scott and backed up with excellent graphic design from Malcom Garret, a big name in the world of tasty record sleeve apparel), we were the only company selling Web authoring, management and design.

This once again demonstrates the gaping chasm that has emerged between media saturation of 3W and the Internet, and the actual mechanisms that are in place to manufacture the stuff. I was amazed that we were getting huge multinationals approaching us, a couple of musicians who have decided to get some web stuff together!

The Music Biz is catching up. Slowly. Kind of. They haven't yet realised the huge premium they will have to pay to the likes of the Ricky Adar's and the Music Network's of this world, for failing to invest in R&D and capitalise on the huge technical and human resources they already have in place. Because they're giants, they move slow. Because the guys at the top are fifty-ish, they're scared to

admit they haven’t quite grasped this Internet thing, for fear of losing their jobs. So they wait and pay the price for ignoring the members of staff on the payroll with imagination, who must be tearing their hair out at the catalogue of missed marketing opportunities that are flashing past them! Having already been an artist on one of these labels, I think it’s a tragedy that the Internet isn’t being used to a greater extent to support and develop groups fan bases. It’s a missed opportunity. It’s lost revenue for the artists. It’s criminal.

Check out the Music Network site. It’s still very much under developement, but worth a look.

http://www.music-network.com

You can send us email on - <mailbox AT music-network.com>

SGI Constructs

ByPauline van Mourik Broekman

The Los Angeles convention centre is in some ways at least as much like a city as LA is itself. Simple massive 5-lane highways, academic malls (the larger conference halls where courses were given, taking up to what seemed like 700 to 1000 people), and then the main shopping centre somewhere on the left of the building - the trade show floor. Carting a horde of 30-40.000 visitors around a building and leaving them with the illusion that they know where they are going takes more than giving them a map and a list of room numbers. Apart from the tagging method that enabled people to spot each other’s professional status a mile off, attempts were made both by both the Siggraph organisers themselves and one of the major exhibitors, to present a dynamic map of the whole building - including relatively detailed levels of information about exhibitors, user direction and place.

SGI Constructs Siggraph 95

This last effort was made by a company whose profile didn’t exactly need to get any higher: Silicon Graphics. They, together with their consultants at "Construct", a web design co. based in San Francisco with extensive experience in the use of VRML, devised and designed the "GraphicsNet Kiosk System": With 18 Silicon Graphics WebFORCE Indy Workstations distributed around the LA convention floor, all connected via ATM to a Challenge/L server in the Silicon Graphics booth on the show floor, the kiosks used WebSpace Navigator to present a VRML interface which allowed users to explore the Centre as a realtime virtual environment.

SGI Constructs Siggraph 95

Using advanced features such as level of detail (LOD) switching - to aid clear perception of the virtual space and the huge number of booths and companies exhibiting - and dynamically updating video texturing which enabled users to leave snapshots of themselves in the social space "Wizard’s World", many different attempts were made to inject dynamic elements into the space; either to aid navigation - such as the growing icons (toilets, coke bottles and telephone receivers which grew if you clicked on

them, no matter how far they were removed in physical distance) or to create social spaces such as the previously mentioned Wizard's World which apparently became very busy with people leaving their snapshots behind and chat about those of other users.

Staying in to Play 3

ByJohn Paul Bichard

WHERE IT'S GOING Well style gurus, it's time to burn your nylon underpants, pack away your fake Jap T-shirts and buy some genuine Pacific Rim lifestyle. The Sony Playstation (PSX) hit the streets on the 29th September (RRP 5299, street price Â£270 or lower). The latest of the nexgen gaming consoles, it looks great, it feels great, dagnamit it is great (even though no games are bundled with it). Games range between S35 to S40 (pay no more). Must haves include: Jumping Flash (out now), Wipeout, Destruction Derby and Tekken (out soon) with stacks of imminent release from top developers.

WHERE IS IT GOING? The Sega Saturn was released a few days before our last issue went to print but nobody thought to let us know (ever had that feeling,,,,,?). Costs Â£399 (Street price Â£375) and includes the beat-em-up Virtua Fighter. Not as elegant as the PSX with it's accompanying Sony lifestyles and black CDs, nevertheless, the Saturn does have some great games including Daytona and Panzer Dragoon and there are some real classics on the way, in particular, Sega Rally and Virtua Fighter II. Also available are an MPEG movie player card, memory card, internet card, mouse, photo CD player, kitchen sink, in fact everything to turn your Saturn into a low grade PC type thingy in fact next year, Sega will be launching a chip for the PC to allow Saturn games to be played on your home computer.

Staying in to Play - John Paul Bichard

WHERE IT IS Of course if you have a decent PC, most of the great new 32-bit games will be available to you without having to buy either console but be warned that games developers are concentrating on Pentiums to run their games.....80386 PC's.....RIP.

WHERE IS IT? Calling all Maccies, I feel that I should offer you some straw of hope to clutch to in these times of PC global expansionism and Windows 95 mania, but I'm not..... actually, I am. Things are not quite as grim as they seem, several of the large software developers are actually releasing their (nearly) latest and best games for the Mac, check out Dark Forces, Discworld, Phantasmagoria, Full Throttle, Buried in Time, Skins Golf and of course Doom II. Hey things are really looking up at last, next they'll be bringing out CD Rom drives on Powerbooks.

REVIEWS

VIRTUAL POOL

Pool Sim - PC - Street price Â£29

- Interplay

Any game endorsed by Steve Davis has got to be seriously, mind-numbingly interesting and funnily enough, it is. Davis teams up with Ronnie O'Sullivan to endorse a no-frills, silky smooth pool simulator controlled by using your mouse as a pool cue (don't try doing this in the pool hall). It may not win a prize for slick graphics, but, in terms of animation (29 fps), playability and cushion-bounce, it really is a champion that you'll just keep on coming back to. Final words to Steve: "the balls feel real and in 3D, the whole thing is frighteningly realistic." Z Z Z Z Z Z Z Z Z.....

Feel Steve Davis' balls for under Â£30 - **89%**

Staying in to Play - John Paul Bichard

SKINS GOLF

"The Skins Game at Bighorn"

Golf Sim - PC/Mac-SP Â£27/Â£35

- Interplay

Take a different type of white ball, very small, some metal sticks with rubber handles, an awfully large expanse of desert - grassed and watered with the entire water resources of California, add a handful of men & women with no dress-sense, photograph, fiddle about on a computer for some time and hey presto, as if by magic, another golf sim appears and what a cracker it is. Skins golf is the first photo-based golf sim and although the graphics are a little iffy, it is highly playable and the gambling (skins) option adds to the tension.

Dodgy attire, the great outdoors and more balls - **85%**

AL UNSER JR.

Arcade Racing - PC/Mac - SP Â£27/Â£35

- Mindscape

Only gets a mention for being the first driving game on the Mac. An adequate but dated polygon driving game that has been relegated to the lower ranks by the onslaught of a whole bunch of stunning PC driving games and sims. If you have a Mac and like racing games, consider it, if you have a PC, don't. **78%**

TERMINAL VELOCITY

3D Blaster - PC - SP Â£20

- US Gold

If this game was produced in Russia, it would probably feature a cancer patient in a human canon ball simulator, but it wasn't and it isn't, instead, it features a very fit starfighter pilot in a very fit starfighter in a very fast arcade style 3D blast-em-up. Skim across 400,000 sq. miles of terrain on 9 alien planets + one alien spaceship, weave through underground passages causing "maximum damage" to the local residents and collect numerous power-ups on the way. Thin plot but with this much action, who needs one? The space-nerds answer to Magic Carpet.

Good, clean, honest annihilation **88%**

BURIED IN TIME

Adventure - PC/Mac - SP Â£25

- US Gold

A complex and highly engaging time travel adventure spanning 7 epochs. Take on the role of Agent 5 in an attempt to uncover a conspiracy to alter the progress of time. A big, big, well scripted adventure (3 CDs worth) that really is tough, with plenty of clues to solve and Biochips to collect. Don't be put off by the over-dramatised intro, the game graphics are stupendous. This adventure will cause you many sleepless nights and could well make a lonely hermit of you. At last a game that packs Myst off to the retirement home. **91%**

SPACE QUEST 6

Space adventure - PC - SP about Â£35

- Sierra

Forget your 3D worlds, pack up your wood, stone and chrome textures, blow away the atmospheric mists of time and slip into something a little more 2D and a whole lot funnier. Demoted to ships janitor and transported into downtown Dogshitville, you, as Roger Wilco, have to bungle your way through a highly amusing space adventure, encountering all sorts of absurd alien types on the way. If like myself, you missed the last nine years of Space Quests, then a compilation of the previous, 5 is available for Â£27 and -SQ 5 is being re-released for just Â£9.99. Oh yes, the title sequence is a classic in animated silliness.

Totally uncool but very funny **85%**

JUMPING FLASH

3D platformer - PlayStation -P Â£35

- Sony

Platform games been there, done it, read the book, seen the movie? Well not entirely. Jumping Flash is the best of a new breed of platformers that blow life into the original old PF shifting the view from side-on scrolling to first-person perspective. Add to this the ability to jump very high (you are Flash and surprisingly you jump) and whilst in the outer reaches of the stratosphere, to look down at the rapidly diminishing world beneath you and you have the formula for extreme vertigo on a space hopper. Not overly difficult, but plenty of varied levels and addictive in the extreme.

Very Japanese, very reliable. **92%**

SIMON THE SORCERER II

Cartoon adventure - PC - SP Â£28

- Adventuresoft

Simon was a little boy who got involved in a great big adventure, full of weird and wonderful characters, trolls, dwarves, wizards and all the usual fantasy fare in a faraway cartoon land that was quite superb. The animation was a sheer delight and Chris Barry’s voice overs added the topping to a witty and immensely silly cake. That was Simon the Sorcerer I. You pick up the plot again in Simon’s teenage years with better graphics, a re-designed interface and nauseating teenage prick behaviour. Part II doesn’t quite have the charm of the original but is nevertheless an excellent example of gaming animation at it’s best and is very playable. Get both games or suffer an indescribable fete.

Part I **92%**, Part II **89%**

DESERT STRIKE / JUNGLE STRIKE

Shoot-em-up - PC (+16bit consoles) -SP Â£22

- Gremlin

Politically incorrect in the extreme, Desert Strike could have been blamed for the gulf war if it hadn’t been shamelessly based on it.. Remember Storming Norman, he’s your boss as you single handedly wipe out the despot’s military hardware in an orthagonal helicopter shoot-em-up. Jungle Strike gets a whole lot better as you chase the despot’s son across jungles, cities, desert and islands, blowing everything to crap in an attempt to destroy the terrorists nuclear arsenal. One of my favourite Megadrive games and still a great play. An unwittingly ironic take on America’s attitudes towards world policing and Johnny -terrorist paranoia. Save the world from Armageddon **90%**

Look out for a whole bunch of brilliant new games over the next few months. The likes of Magic Carpet II, Command & Conquer, Actua Soccer, Air Power, Destruction Derby and so on (to be reviewed next issue), take gaming to a new dimension as realistic graphics, well written plots and great sound FX make their way boldly onto your desktops. Add to this the trend towards lower pricing and releases of older classics on budget labels (Virgin, Sierra, Mindscape, Ocean - with prices from Â£9.99) and it looks as though computer games publisher are starting to get things right.

The Incident

ByTracey Warr

The Incident symposium in Fribourg, Switzerland in June brought together diverse artists and researchers dealing with non-explicable phenomena. Jacques Vallee discussed UFOs, Budd Hopkins presented his evidence of alien abductions, Rod Dickinson talked about crop circles, Ulrike Rosenbach described her work on angels, drugs guru Terence McKenna enthused about DMT and tried to persuade all the symposium delegates to take it, Jeremy Narby described the paintings of an Amazonian shaman that feature both DNA diagrams and UFOs, Keiko Sei and Kathleen Rogers discussed psychic phenomena and Swiss artist HR Giger showed his work which informed the aesthetic of the Aliens movies. Between them all, whether you subscribed to belief or scepticism on any particular issue, you had to observe that our accepted notions of reality were being severely questioned from all angles. Overall The Incident asked what contribution artists might make to the debates around non-explicable phenomena and raised the notion, as symposium organiser Rob La Frenais commented, that "artists might be better equipped to deal positively with the ambiguous subjectivity that such extensions of perceptivity bring".

American artist, James Turrell’s keynote address characterised phenomena researchers and artists as pioneers -akin to the criminals, deviants and delinquents who sailed to the New Worlds in previous centuries - venturing into the unknown that would become the future. As Turrell commented, the brain has capacities for which we have not yet invented a vocabulary. Whatever interpretation you put upon them (military conspiracy ... benign or evil intentioned aliens ... god), there seems to be an overwhelming mass of evidence of physical phenomena that is neither adequately measured or explained by our current sciences. Consciousness, perception and phenomena are now the research subjects of reputable academic institutions around the world including the Universities of Edinburgh, Duke in North Carolina, California and Austin in Texas. La Frenais’ contention was that "at the point at which science breaks down, at which results are anomalous or evidence appears to point at non-provable conclusions, artists can take over where rationality stops".

The Incident - Tracey Warr

Â Image: Elaine Laubscher, *Terence McKenna*

Research into the unconscious, evolution and genetics have radically altered our understanding of ourselves during this last century. The Incident seemed to be laying the ground for the next stage of research into what constitutes the self and consciousness within a universal context. New technologies are extending the body and perception. To some extent our relationship with developing technologies, with cyberspace, is merely contesting old ideologies in a new space, but is there also something evolutionary emerging from our interface with technology, and should we, as David Porush suggested at the Virtual Futures conference in Warwick earlier this year, be "treating the history of communications technology evolution as lying on the vector of evolving telepathy"?

Initially in the symposium there appeared to be a separation and mutual denial going on between two camps - which might flipply be described as the science or "hardware" camp (mainly male) including the UFOlogists, military conspiracy theorists, and technologists, and the psychic, intuitive or "software" camp (mainly female) covering parapsychology, angels, shamanism. But bringing them all together created the possibility to ask some wide ranging questions about where the limits of our perception and our sense of reality are. One could take up a range of possible positions - incline towards a view that the phenomena under discussion are external, and can therefore either be proved to be "real" or hoaxes and sinister government cover-ups, or incline towards a sense that everything was internal and symbolic, enacting processes and needs of human consciousness - but it was impossible to simply dismiss the questions. Some want aliens, angels or ghosts to be superior beings advising and shaping human history - and linked to our ideas of god - others see bogey men abducting us, performing nasty surgery upon us and generally satisfying our need to be traumatised and very afraid, or others regard the debate as the expression of a universal loneliness - a desire to find that we are not alone in our consciousness and our unremitting need for anwers.

The Incident - Tracey Warr

Image: Elaine Laubscher, *H.R. Giger*

Apart from Jeremy Narby’s accounts of Amazonian shamanic artists, and three delegates from Mexico, there was a lack of direct contribution from anyone outside white, Western cultures, but an expressed wish to address this in a subsequent event.

The symposium weekend also presented works by artists: "Close Call" - a tardislike installation using neon and strobes by James Turrell, an interactive work by Chen Chih-Cheng, an installation about water consciousness and dowsing by Kathleen Rogers, a performance exploring the possibilities of communicating with the sleeping body through electrical stimulation and amplified skin responses by Bruce Gilchrist and a CD Rom demo by Homer Flynn of The Residents. The symposium was followed by the two week Belluard-Bollwerk Festival on the same theme of non-explicable phenomena with performances by artists including Albert Vidal, Anne Bean and Erik Hobijn.

The Incident symposium papers will be published early next year and a second symposium is currently being planned. For further information contact Rob La Frenais on <75337.206 AT compuserve.com>

The Outside Inside of Techno Art

ByJames Faure Walker on Siggraph 95 and ISEA Montreal

The LA Convention Centre is vast, white and serene. This August it was home to the Siggraph community of 35,000. The air-conditioning is fine. Except... a patrol car (pump-action shotgun clipped to the dashboard) screeches to a halt. There's a problem. Security called them in. There's this Italian artist touching up his interactive piece with an aerosol spray. CFC? Like on local TV there are priorities and they're big on unwelcome chemicals. A couple's polluted swimming pool is a human tragedy and Bosnia is just sad and somewhere else. Outside, the relentless LA sunshine: a huge jet-black Silicon Graphics truck sparkles in the car park. Inside the exhibition hall Silicon Graphics dominates just as it dominates the animation and effects market. The streets are deserted. The graffiti can be nice, but they announce gang precincts. The 3 am killings are real. The OJ trial is a mile away.

Cool, Catalytic, say the stylish Siggraph banners. There's Interactive Communities and there's Interactive Entertainment, the section with all the VR harnesses. I am fascinated by the double-think. Calling the sensory transplant of VR interactive is just weird. The same goes for 'communities', the Net and so on. Using your Mac to chat across town makes a lop-sided kind of sense. It might strike some societies as pretty perverse to hide-out in the suburbs, to create virtual spaces when the real spaces are just left vacant for scavengers, but that's LA. The real networking at Siggraph is offline, all about finding the best party. The best VR is real-time and wrap-round 3-D: a ride in the glass lifts of the Bonaventure hotel - you're on the outside but you're also inside and safe. Word was out than an agency had booked open access for Siggraph people at Universal Studios, but only after midnight. It was a half-truth. The rides were closed. But the themed streets of the malls were still bustling with shoppers, interacting with the Pizza Huts, a community of short-range pedestrians, mostly overweight, and exclusively car drivers - no druggies or Mexican homeless. A Brazilian friend nodded towards the vacant faces ascending the escalator, temporary citizens of a make-believe Western - "these are our rulers". If LA is the future and our social life is virtual, then goodbye public parks and cafe society. The shopping mall is half-way virtual already.

Exhibition Hall post trade show. Photo: James Faure Walker

Image: James Faure Walker, Siggraph 95, Exhibition Hall post trade show

The Art Show is something of a diversion in the trade show/technical conference, a breathing space away from the selling. Thousands see it, and though many are experts at the forefront of computer graphics I would guess most tend towards the conservative in art. But they do sometimes bring a freshness that makes the mainstream art-world seem one-dimensional and slow on the uptake - especially its inability to see beyond 'media'. A high-tech audience takes the digital for granted and can be more attuned to the 'art' of art than an artworld preoccupied with collectors and big ideas like the Goldsmiths pedigree. Droning voice-overs and video projectors in dark rooms won't hold their ‚new media' mystique for ever - two or three installations at the Tate and the novelty fades. So Siggraph is a good forum for testing ideas and seeing what others are up to. My own contribution here, two pieces in the show and a paper on "still video and 'the painterly poem", was a tentative step towards getting more of the normal and everyday into the language. I found I was far from alone in feeling this way - deadpan 'artificial' realism was a clear trend in animation, and many others were looking in the same direction. Call us the cyber-sceptics. But I'm not above technology for

technology’s sake. The most extraordinary wall exhibit I saw in the novelty category was in the commercial show: Dimensional Media (a SGI subsidiary) had a 3-D animation playing on a monitor two feet out from the wall, except that there wasn’t a screen there, and it didn’t seem to be a hologram either. Spielberg’s team was looking round, and it’s a strange awakening to find that what makes life difficult for the loner - lack of money and resources - still gives, you something out of reach of the big outfits: ideas and independence.

ISEA

"For the record," began Chea Prince, "I don’t do cyber-sex." He preferred the traditional way. This September’s ISEA 95 took place in Montreal and wasn’t short of cyber-sceptics. ISEA stands for the Inter-Society for the Electronic Arts, and this was the sixth symposium (the sequence began in ’88 in Utrecht, then Groningen, Sydney, Minneapolis, Helsinki, and next year Rotterdam). These conferences and exhibitions are smaller than Siggraph - 1000 attended ISEA Montreal - but more intense because of their focus on art, music, science and philosophy. Each event has its flashpoint as the debate turns a corner. Two years ago in Minneapolis Jan Hoet of Documents set things alight by rubbishing the ’art’ on show. He didn’t make much effort to come to terms with the ’electronic’ perspective, but his views set the tone - and he had a point. Chea Prince is part of Public Domain, an Atlanta collective of artists who recycle hardware discards back into the community. Preferring the traditional to the virtual might have been heresy a while back, but this year we were trying realism, coming to terms with the offline world - what one cyberspace lexicon lists as "the Big Room".Â

Geert Lovink, Data-Dandy and veteran of Amsterdam’s Digital City, showed underground film from Belgrade, and questioned our IKEA culture of comfort, ideals without ideas, our techno-ambience, mountain bikes, cool T-shirts, bright-colour backpacks, sloppy sports clothes. At the Ars Electronics festival in Linz this year, the conflict in Bosnia hadn’t even been mentioned. He was making a stab at a connection. Derrick de Kerckhove, of the Toronto McLuhan Program, spoke of electronic art moving from the homeopathic to the mainstream. No need to circle the wagons. Time to think about where we’re heading. David Rothenberg, composer and Wired contributor, demonstrated the Korg Ethnic Sound Card, a medley of ready-to-wear World Music. He listened with a beatific smile and wondered about the ethics of that. Lev Manovich observed how rendering in virtual reality is quantifiable, realism measurable in dollars, wire-frame for the poor. Henry See, one of the ISEA95 team, mused that painting uses cheap tools to make objects of value, state-of-the-art computing uses expensive tools to make...

Exhibition Hall post trade show. Photo: James Faure Walker

Image: James Faure Walker, ISEA 95 Montreal, Krachtgever (Invigorator) Peter Bosch and Simone Simons

We weren’t all talking hard-headed realism. Mark Pesce, one of the inventors of Virtual Reality Modelling Language, gave an impassioned talk on the web as the collective evolution of consciousness, as the noosphere, as the gateway to the Sacred Time. There’s a new category emerging, a mix of San Francisco research labs and New Age. Watch out for shows called ’Sacred Art’. I sat through a flawless dance piece by Montanaro Dance with nice interactive effects. But something in me just doesn’t respond when I’m asked to drink deep at the Well of Being. It’s like another multimedia card: Stonehenge morphing to Parthenon, Gregorian chant to bamboo flute, Canterbury Cathedral to Taj Mahal, Ellis Island to Holocaust. Birth, life, death, the universe, all in one package, and no laughs.

Spiritual revelation or spiritual tourism, what a relief to peer in at the gyrating dancers at a live TV disco down the road.

The most technically advanced piece on show was Char Davies' Osmose at the contemporary museum, a heavily booked VR show - 20 minutes of immersion; It is the product of years of research at Softimage in Montreal, where she is Director of Visual Research. Navigation was modelled on diving, so if you breathed in you floated up, and if you breathed out you dropped down - you could also tilt this way and that. You begin in a gridded 'Cartesian' space and descend to a gossamer woodland scene: a tree, roots, oak leaves, puffs of light tracking past; sinking down through the roots you reach the marching text of program code - the best part - and falling through that you find you're once again above the woodland glade. The spectators watching your 'experience' through red/green glasses actually get a better view, but viewing several explorations doesn't build much on the initial impression. Like cruder installations with their incense and smoke machines, their virtual aquariums, bacteria, forests, bird-song, their Marienbad scores, there's a Green romanticism wafting through, a yearning for the innocence of the great outdoors. It's more mood music than symphonic rapture.Â

Liszt was into the transcendental, and spoke of his music as casting a lance into the future, and as a fan of his I don't want to say you can't orchestrate a spiritual experience. The developmental drive of VR leads to the Disney idea that you make the imaginary so 'real' that you don't need to imagine it, you just walk through it. Up to now art has done this job best when it has avoided the literal - hi-res (the later Pre-Raphaelites) gave the spiritual too much detail. It's a tough question, what you do with the illusionism of VR, and perhaps 'visionary space' is again the default metaphor. Osmose was a decent pioneering effort. I'd also like to see what an animator with a much zanier imagination - Beriou, say, of Table d'amour - could do in the genre. For Mark Pesce Osmose meant the Real Thing, the healing of the human/nature dichotomy. He was in tune with the credo. I wasn't. There's a presumption that our souls are out of joint and a dip into VR puts them back in shape - well exclude children, those who can't pay the admission, and the bearded woodsmen. Would VR become the substitute walk in the mugger-less park, high mass in Notre Dame? As Pesce's talk rounded off in the cyber-ether, Simon Penny (who makes precarious robots and edits critical texts) leapt to his feet: "that pop techno-spiritualism may fly in San Francisco, but come on!" How could being tethered to a machine be described as liberating? It was more like bondage.

The main exhibition was in the Ec6le Cherrier, a vacant school. These shows are juried but not curated, and that means they tend to be untidy - but that again is part of the point. A half-formed work by a student could say more about the way things are going than a professionalised installation. The tour de force in that category was the Vorn/Demers' Frenchman Lake, a room of grunting, smoking, flashing interacting 'robots' thrusting up and down in oil drums. More restrained and economical was Bosch/Simons' Krachtgever, 28 wooden crates in 4 rows linked by springs, programmed to shake around in ever-changing permutations. The simplicity of this worked well, so it was hard to believe there wasn't some will - or spirit - behind the changes of mood. Altogether there were fifty exhibits here*, most of them being dark rooms with some kind of 'interaction'.

Watching the public go round illustrated two things: first the difficulty of making the point of the interaction clear. People scour about but just find an opaque artist's statement, and move things about to experiment whether they're supposed to or not. For most projected videos the mix and match devices - mouse or touch screen - are really gimmicks, and the videos would run just as well without the baffled spectators messing them up. Just as with most books you start at the beginning, and work through, flitting from page to page gets frustrating after a while. Spectators prefer to be rewarded. It's simply that there's now an appetite for art that 'does things' - sculptures that answer back, things that follow 'you around - as though at last this Sunday audience can stop pretending to enjoy art and can really have 'fun'. There's the highbrow debate at ISEA about opening up the art interface to

’emerging’ senses. Fine. But I don’t think people have thought through the consequences of galleries as - slightly pretentious -fairgrounds. It’s great to see the laughter and enjoyment when the Krachtgever starts getting angry. With another longer running exhibition, Images du Futur, fart interactif, attached to a cyber-caf6 I’m not so sure. Prompting the exhibits to do their thing in the twilight may have as much to do with ’art experience’ as the internet salad has to do with modems.

The great strength of ISEA is that it provides a home for the experimental. It’s not a trade show like Siggraph, and it’s not an artworld event. No cash prizes, pavilions, pampered egos. It all runs on the energy of artists, theorists, volunteers. Bruce Sterling, author of The Hacker Crackdown, announced his Dead Media project, a catalogue of extinct inventions. He loved his ’Powerbook’, but with the pressure to upgrade, it had the life-span of a hamster. ISEA provides open house to the offbeat. Where else could you come across an outdoor interactive installation by a practising psychiatrist; a composer and a geneticist converting the DNA code of liver cells, botulism and the common cold into tone poems; haute cuisine recipes compiled by artificial intelligence; an artist - the incomparable Stelarc - giving a talk with his arm twirled round by programmed muscle stimulators?

It’s interesting how relatively prominent Australia and Canada are in this field. If you average out ISEA shows over the past three years (that excludes Sydney 1992) the proportions of exhibitors work out as USA 39%, Canada and Australia each 14%, Germany 7%, Japan 6%, UK 4%.

For information on joining ISEA and receiving the newsletter Email: <ISEA AT SARA.NL> or contact James Faure Walker at

Email: <100666.2570 AT compuserve.com>

To Shin Den

ByIsabel Auphin

What is this all about? A new stupid combat game? The plot is even poorer than usual: duels between 8 characters and that’s all! What’s the interest so? Well, as one of my French friends said, as soon as he saw the 2 fighters ready for the first duel: "hey hang on a minute will you? (I hope you like my subtitles, because he said it in French). Are they real? The ones we will play with?" Yes they are indeed, pals. 8 convincing read 3D characters that you animate in real time by pressing the Playstation control buttons.

Let’s make this clear: I’m not writing an article to compare To Shin Den to other real 3D fighting games, like Tekken or Zero Divide, because I don’t know them as well as To Shin Den. I’m just trying to understand why and how this particular category of computer games represents something new, and opens other possibilities for gameplay than just a succession of duels.

To Shin Den - Isabel Auphin

Image: Artist’s sketch for To Shin Den, Courtesy of Sony Electronic Publishing

The important thing here, are the characters. The first characters which deserve this name in the computer games industry. We have 8 different characters, all physically very different. Their size, strength, age, and of course sex determine their different moves (can I take the opportunity here to say

that 2 women for 8 characters seems a bit low, and that the choice between a child and a pin up looks a bit restrictive and trivial to me?) The old Chinese man, Fo, doesn't move as brutally as the enormous mass of muscles named Run Go, and the little and delicate young Ellis definitely attacks faster than the heavy metal armoured knight. So you can be really good at controlling one character, and really crap with another one. If your character is strong, he will cause a lot of damage every time he touches his adversary. But he will be slower, so the other fighter will have the time to avoid him. If he's old, he won't be strong or fast, but he will be wise enough to avoid attacks, wait for the opportunity to kick etc.

Another interesting thing is the ability to combine removal and attack buttons, and create other movements. Weapon attacks, hand and feet kicks, which can all be close or long distance attacks, can be combined with jumping, running, stepping back or squatting. Don't worry, I won't make an exhaustive list here of all the combination possibilities (I'm still discovering them).

I was never into computer games, they used to bore me to death before To Shin Den. I was into role-playing games. I enjoy becoming another person, with another morphology, another personality and other powers, to get into an adventure. It's almost possible now with computer games, and that's what I can see when I play To Shin Den or other games of the same kind. All we need now are good screenplays for these games, but I'm not worried about that, we can ask the traditional role-play writers!

I definitely think that To Shin Den belongs to a new generation of computer games. There is as much difference between a traditional 2D game -with flat pre-rendered positions for a character who exists eternally in profile - and a realtime 3D game, as there is between a theatre stage and an exterior technicolor background for an action movie. Believe me, I have nothing against theatre. I love it. But theatre is a convention. A convention also between the actors and their public. We go to the theatre to watch complicated psychological dramas or easy-going comedies, but never to watch adventure. Because adventure doesn't fit into the conventions. We go to watch adventure in cinemas. I can't stand the usual 2D computer games, because their graphics are too poor to be anything else than a convention, and they try to talk about adventure (in the best cases) and action, but their 2D low resolution flat animations don't convince me (I won't even talk about the "characters" in these games), and I can't get into them. Whereas I can get into the characters and realtime 3D environment like To Shin Den, because it's a virtual reality now, exactly like cinema was for theatre at the beginning of this century. Cinema took adventure stories out from the theatre, because cinema was more realistic, powerful and convincing. A better support for imagination. I think that virtual reality games will take adventure out from the cinema. For the first time in the history of narration, spectators (the players) will be able to take control of the narration. They won't just get a bit more "inside" the action, they will create it, and change the story their own way. Bloody, romantic, odd, erotic, dodgy, immoral, you never know. "oh come on, this is not new", you say "you could already do this in a role-playing game." Yes, but I couldn't keep traces or memories from them. I carry on role-playing every time I can, but that's the only way I can describe it to a person who doesn't know what it is. Because what remains for them? Just a memory. I can't share my experience, because a role-playing game is based on imagination. Whereas I will be able to share a virtual reality game experience, because it's based on a visual and audio support (and probably fuller sensory support later). I will even be able to record it one lay. for sure. Tremendous fun in perspective!

Well, we can also get afraid of this, of the unknown consequences on our notion of reality and all this kind of stuff. you know, won't we get lost, and go crazy? I've got my own opinion about that, but I won't tell you now, because it's another story. I was just asked to write an article on To Shin Den after all, and I just did.

Urban Feedback

ByPauline van Mourik Broekman

From the Digital City project in Amsterdam to the virtual architectural fall-out or Sprawl conceptualised by sci-fi writers (and used as a title for numerous websites), the city can be both a powerful metaphor for the information space contained within the computer and a rich starting point for the construction and navigation within that space.

Urban Feedback started as such a project. Sophie Greenfield and Giles Rollestone (aka "Perfect Indigo) are currently demo-ing the beginnings of a CD-rom which will take the fragmented and fleeting nature of contemporary urban experience as its subject matter and central interface metaphor. They are also inviting contributions and are keen to collaborate in the design of the project with people who are committed to creating similar non-linear, circular and associative experiences.

Urban Feedback

Both Sophie and Giles have a strong interest in collage and film; they would like to further the participatory and randomising possibilities that interactive media are capable of and ultimately make their CD-rom one step in the direction of an image and sound set which could enable users to work relatively independently with elements stored there. This way, so goes their hope, there would be chances for the assembly of something that they as designers had little expectation of at the outset in terms of a final piece. Obviously, this sounds very much like a possible description of non-linear media in general, but let’s say that the randomiser will be slightly more revved up for this project.

Both as a navigational strategy and as a creative method, semi- or total random selection can have its pro’s and cons. What is currently worst about it, is that most "random" navigation or selection methods have their limits and that, just when the generated connections begin to get really interesting and the user thinks s/he is being shown something unexpected, the devices used to create the illusion of randomisation become all too apparent.

One of the things which might make Urban Feedback less transparent in this respect is Indigo’s wish to include both high-level programming and extensive use of the internet into the design of the CD-rom. It will make it something to return to, feedback not something you get allotted at the outset.

If you would like to take part in the Urban Feedback project, get in touch with "Perfect Indigo" on 0171 794 5916 or email: <g.rollestone AT rca.ac.uk> (Giles) <sophie AT urban.demon.co.uk> (Sophie)

PvMB

V-Art

ByPauline van Mourik Broekman

AESTHETICS AND TOOLS IN THE VIRTUAL ENVIRONMENT

In response to some of the issues raised in the Siggraph95 course ’Aesthetics and Tools in the Virtual Environment", Pauline van Mourik Broekman interviewed two of the four artists who participated: Perry Hoberman and Patrice Caire.

(all images are taken from Patrice Caire’s Cyberheadproject)

In the panel "Aesthetics and Tools in the Virtual Environment" held at Siggraph this year, one of the interesting questions I thought you raised was to do with our emotional relationship to machines. Rather than the model of monogamy where use or possession of one excludes the other, you advocated something more flexible, perverse. What factors do you think determine this monogamous impulse?

Ownership and control are very seductive, especially as a kind of fetishistic barrier to an increasingly unruly world. People tend to think of their machines as servants or toys; both of these are relationships of possession. The whole thrust of late 20th century techno-ideology has been geared towards the promotion and packaging of consumer products, everything channeled towards the home, the family, or solitude. Between video, personal computers, video games, the Internet and commercial on-line services... we may never get out of the house again.

I think monogamy also comes out of the evolution of the personal computer as a typewriter with a TV screen, a mere tool. It’s much harder to make a typewriter for a crowd, and yet this is the very thing that becomes possible with digital technology.

V-Art - Pauline van Mourik Broekman

You also seemed to want to expand this fluidity into our perception of the "evolution" of machines. In your installation, "Faraday’s Garden", a whole gamut of machines was presented, silently waiting for the viewer’s steps to trigger their functionality, make them whisk, grind or illuminate. No one form or device superceded the other, no matter how obsolete or defunct in techno-historical terms. Is this a reminder, "Out of sight, out of mind....

Faraday’s Garden was (among other things) an attempt to re-animate the dead. Of course the undead need the living (otherwise there’s not much point in returning from the beyond). So you end up with an intensely symbiotic relationship between the installation and the audience. As the leading edge of technology rushes forward at ever-increasing speed, everything else is treated as unevolved, useless trash, which can only lead to the inevitable revenge of the obsolete.

Perhaps it’s due to technical constraints, but a lot of VR artwork seems very a-historical in terms of its position within the history of visual representation. Do you feel it gets separated too much, due to its distinct nature, or not enough?

Also, there seems to be some linkage Maybe, there between that and an interpretation of VR as a new (or alternatively, archaic but resurfacing), non-verbal medium for communication. A conductor for a more holistic paradigm?

I think that the difficulty of locating VR anywhere in art history stems partly from the breathless rhetoric that usually accompanies it. VR is often posited as something separate from the machines (usually very expensive machines) that make it possible. There’s the notion that we’re going to strap ourselves into some elaborate rig, and then quickly forget all about it as we experience an absolutely pure -ethereal world.(As though VR doesn’t require any suspension of disbelief at all!) I think we’ve barely begun to develop even a syntax for VR, largely due to inane concepts like "post-symbolic representation". So I don’t know that VR is much of a means of communication between people as of yet. There’s the notion that subtlety of communication increases with higher bandwidth. That is, a picture-phone would be better than a telephone, and networked VR would be the ultimate. But this doesn’t seem to be true. Increased bandwidth leads first of all to sensory overload, which can be thrilling but hardly conducive to effective communication. But I don’t think art is really about communication anyway.

V-Art - Pauline van Mourik Broekman

And then VR is also often interpreted as being more in keeping with a "feminine" understanding and negotiation of space. How do you feel that the different definitions of Virtual Reality structure these descriptions? Phones, computer terminals, games, datasuits...

Maybe, as long as "feminine" stays in quotes. There’s an element of open-endedness to VR, which could be seen as more "feminine" (I’m not sure, really). Surfaces are permeable, gravity is optional, space is endless, etc. While there are of course many examples of rigidly structured VR (goal-oriented games, restricted "tours"), these could be seen as attempts to mask the current shortcomings of VR technology. But I certainly don’t think we’re going to be leaving our bodies behind, male or female.

Currently one of the things lacking from many games, VR experiences and areas of the internet is a possibility for generating communal experiences and interaction. In your work Barcode hotel, you had a kind of prodding, playful and absurdly unfunctional interaction set up between people via the things they could do to their chosen objects. Was this a prime concern of the piece?

Yes, absolutely. The real challenge is in making something that is flexible enough to be used by any number of people. One of the rationales of making work "interactive" is to make it intelligent enough to adjust to changing circumstances. And "intelligent" here doesn’t mean AI, it just means thinking through how people are actually going to experience and use the work.

How do you feel about the current use of genetic algorithms in art. AL is rapidly becoming a very popular way of exploring the human - machine - machine - machine - machine interface. Is it really showing us a reality we’re too conditioned to face up to, as is often said?

While there’s nothing inherently wrong with a hands-off approach to artmaking (just program the machine and let it crank), it often seems to lead to a kind of neutral position where the artist ends up a mere observer, a kind of naturalist.

V-Art - Pauline van Mourik Broekman

Your project The Cathartic User Interface; tell me how it’s going and are you going to franchise the concept so we can all enjoy its benefits?

Cathartic User Interface 1.0, which is a project by Nick Philip and myself, is up and running at the Blasthaus Gallery in San Francisco. It seems to be a great success. It turns out that the ideal way to control a computer is by hurling an object as hard as you can at it. This allows you to step back from the machine (incidentally protecting yourself from harmful radiation), creating an unpreceÂ-dented "multi-muscular" (kin) aesthetics. Nick and I are planning to push the concept further, and are in fact going to develop a "personal" version of CUI, which hopefully will provide some relief to countless frustrated and depressed mouse jockies.

PATRICE CAIRE

One of the main aims with Cyberhead was to include and model "real data" (in this case Magnetic Resonance Imaging data of the brain/head) into the virtual environments you created. Why do you feel it was important to juxtapose this with the modeled, synthetic reality you chose to create?

0 I created a fiction based on real data. My goal was to make a set up with which people could identify, i.e. a human head. It could be theirs or their friends/ relatives/ enemies... The point was to make a seemless trip between people’s actual reality at the time they entered the VR world and the fictional reality through which they would be travelling. To close it in a similar manner, as if they had been in an other world : a pocket of non-communication.

One of the most conspicuous aspects of artists’ VR projects is the fact that they are, by necessity, collaborative. Do these projects become collaborative in the full sense or do you think they usually conform more to the film-production model of director and production team where the artist’s output becomes a bit like that of a film studio with the attendant financial and staff management taken over by the artist?

This is a very difficult issue because of the hierarchical structure of our society. The way I work with people though is to allow everybody to participate fully and as early on as possible in the project I am working on. I consider creativity as a part of every profession, be it engineering, programming, creating concept, designing 3-D models, creating animation, drawing characters or objects, chip design or plumbing, tennis playing ... It is HOW each person works and thinks which makes a difference not what they do.

That being said, the bigger the team, the harder true collaboration becomes. And when financial issues arise it often becomes more difficult. Moreover, issues like copyrights, reproduction, responsibility ... become very complex.

In the panel you seemed quite decisive that, for artists to really tackle new technologies, including VR, they need to become fully conversant in the areas of programming and the use of high end equipment and software; has your ability to programme affected your ideas significantly or has it just made it easier to get them across?

I don’t mean high, actually desktops and midranges are of easier access and less time consuming, so in that sense are better. I do think that you have to know your tools, whatever you choose to do. I always insist upon a tight interaction between conceptual work and concrete experiments. They feed each other in a very rich manner when they are so completely intertwined. Every new technic and technology I learn and use expands my vocabulary and therefore enriches my thinking.

In Cyberhead, you state you wanted users "to consider the relationship between biological existence and thought". What strands of mental and biological activity did you seek to represent by e.g. the Disney-like hands, the violin or the branch, boat and palm tree - or do you think of their role as less illustrative than that?

These 3-D objects were really there to allow the user to associate as broadly as possible with his or her own experience. Like sound, cartoons, other states, like being on a boat, other horizons. They are connoted trempolins. For a public in Africa or Alaska or whatever they should be different,just more appropriate to a kind of common cultural receptacles. They are symbols.

V-Art - Pauline van Mourik Broekman

One of the challenges you mention is the problem of presenting data that is difficult to represent. Perception, cognition, the brain’s reception of ambient environmental imput; sound, light, physical pressure etc. There seems to be something quite paradoxical about using VR for this as it still, even by default, places an onus on a kind of visual and virtual plasticity. Did you find this helpful or frustrating?

This is a new land and it is nice to run in it. You make your own rules. That’s why you have to know what you are working with otherwise you end up using old models that are totally inappropriate. I am interested in programming as a tool and most importantly in algorithms design as a grammar.

Being concerned with the body’s negotiation of space and our understanding of space generally, how did you investigate these areas before? Did you always explore the interface of the virtual and actual and if so, how?

My work is to create systems and in the past it has taken different forms, one being to create large installations mostly exhibited in museums. I also have worked a lot with semiology, and my work has always has a strong conceptual framework linked to the concrete design of models. I believe that reality, our physical reality, is developed by our bodily movements.

As with games, the narrative possibilities of VR are distinctly different from linear media. How do you approach this aspect of a piece. Do you concentrate on the environment, letting users "free fly", or do you employ narrative devices?

This is also a difficult issue as you want the user to have an idea of what is going on. The learning curve is very sharp so I give a bit of guidance and allow the users to take off by themselves as much as possible. At this point of our computing abilities, it is still limiting anyway.

Does this pose any technical problems or does it facilitate things by structuring the space?

Indeed, and they are tremendous. I want to create VR environments which are very rich, meaning you need a lot of different technologies. Each of them is developed separately by different companies and no one makes them work together. You are always a beta test in some ways and that is difficult when you have specific deadlines. In that sense, my work is to integrate, as many ways for us to expand our senses, perceptions, intelligence. Some of the new technologies I am referring to are haptic and force feedback, elaborate speech recognition, 3-D sound, good and fast rendering, high resolution of stereoscopic images and 3-D models and animations based on real data as well as constructed from scratch.

I've heard you ride motorbikes. Any comments on SPEED? (not the film, don't worry!)

I have a very strong interest in speed, not so much speed as a way to go faster from A to B, but as a completely different way of conceptualising things. I used to race on Japanese bikes for speed racing - mostly Yamaha 1000 cc, i.e. very powerful engines and very fast - for GP (grand prix) in super bike and super sport category.

Siggraph VR panel and general information: http://www.xian.com/panel.html

V-TOPIA at the IKON Gallery

ByPauline van Mourik Broekman

I don't know whether it was because I had seen some of the pieces on show at the IKON before, or whether general apathy has started to set in when I approach another quasi-interactive exhibit, but one room I could have stayed in for a good few hours more at the gallery was the ad-hoc reading room set up to give people background information on the historical and conceptual context of the exhibition upstairs. Here were books on topics artists were presumably influenced by, posters of the "high-tech violence of the future" - Jean Claude van Damme et. al and even preciously framed sketches of, yes, an interactivity diagram

The literature on panoramas especially, background information on the Passagen project, made Elluard and Johnstone's interpretation of it seem pretty uneventful and prosaic. Where did all that effort on the interactivity and branching structure go? Maybe I saw a sketch that was discarded later? Passagen, a hanging panoramic octagonal screen onto which a seamless, collaged surround-city is projected, is meant to transcribe Benjamin's unfinished 'Arcades Project' and create a meandering, fantastical city-experience out of different major urban centres, London, Paris etc... It is meant to recreate a sensation of that which Benjamin saw the city as - especially its subterranean spaces - a near mythical place, a concrete and very real hales that exists within the ignored epicentres of the constructed, urban

world.

V-TOPIA at the IKON Gallery

Image: Richard Land, Mirror Images

Rather, we get a really very simple, grandly announced descent coloured by the echoing words of Benjamin: "You are between sleep and waking" and "Every step one takes is on named ground at the end of which you feel you definitely missed something and probably didn't click at the right moment. Panoramas were precursors to film and photography, imaging technologies of sorts. Though they were painted, the desire to picture in entirety, to extend the frame around the body are clearly concerns resurfacing now with advances in both projection technologies and realtime graphics. Though Passagen was probably made using software incapable of higher feats, this is not where the problem lies. It is with the physical object in the gallery and the selection of images projected on to it. Jeff Wall's photographs of panoramas, with restoration staff looking on, have made these historical precedents clear, drawn connections over time and, it seems, space: By literally making something panoramic, you can remain as physically oblivious to it as if you were sitting on a bench looking at a badly printed postcard.

The Butler brothers' rendition of city life is somewhat different. Happy bunnies all, citizens are pictured as eager to please, trigger happy sleepwalkers of Cyberville. With a family of iconic characters (white and black bunnies) and a city made of row upon row of single room shoe-box homes, comfy lives are led watching TV and hearing the birds tweet in the back yard. Difficulties only arise when moral decisions have to be made. You are asked to answer a series of simple questions and see your decisions take effect: Capital Punishment, captives guilty or innocent, "The Dream of Freedom" is Sim city for beginner bunnies on Temazepam, with no crying over spilt milk, accidental death or lapses in judgement.

With Lynn Hershmann's "America's Finest"and Richard Land's "Mirror Images" V-topia retained the critical stance it intended to take. The organisers Tramway, in Glasgow, wanted to curate an exhibition that tackled the utopian zealousness of an emerging networked culture, cyber-infotainment and the virtualisation of certain corners of society. Having been initiated only a year ago, it is strange to think long ago that seems and how timely this exhibition was.