Networked Soft Space
Melinda Rackham

>> being

> The conceptory placed the new orphan seed in the middle of the
> womb's memory, a single strand of information suspended in a vacuum
> of zeros. The seed meant nothing to itself, …a sequence of bits, a
> string of passive data could do nothing, change nothing, but in the
> womb the seed's meaning fell into perfect alignment with all the
> immutable rules of all the levels beneath it. Like a punch card feed into
> a jacquard loom, it ceased to be an abstract message and became part
> of the machine. (Egan 1997: 7-8)

Greg Egan, Australian science fiction writer and computer programmer,
assumes a future where humanity is no longer randomly biologically born,
rather it is created from a data seed in a computer environment, within an
empty space ( ), at a zero point in a void, produced out of nothing but a few
snippets of code. By being embedded within the Cartesian matrix of the
electronic womb we become part of the machine. In Egan's vision we are
born, live and die online, creating art along the way as by-product.

This future scenario raises many questions as to how we are immersed in and
consumed today by two-dimensional (2D) cyberspaces and three-dimensional
(3D) virtual reality spaces of the electronically constructed World Wide Web.
Right now the machine produced Virtual space of the network is marketed as
a place in which position is meaningless. It is hyped a nirvana of equality,
without hierarchy, where there is access for all - a level playing field
supposedly disregarding the indicators of gender, race or economic status.

Remember Microsoft's "Where do you want to go today?" Their compacted
geographical view of every day reality, sold an ideal world where everyday
hierarchy ceased to exist; where each user is the prime activator, responsible
for the construction of their online identity, experience and position in a global
environment, from an infinite number of easily accessible choices-regardless
of local, cultural, territorial or economic constraints. Here using technology is
not seen as ordinary, localised or linear, rather it is assumed to have an
independent agency to produce alternative realities, fluid identities and trans-
architectures.

But where exactly can we go virtually? Technologically produced space may only have an illusion of navigational and interactional freedom, and perhaps has, as Baudrillard suggested, replaced "the imaginary world of the mirror, of the divided self and the stage, of otherness and alienation… [with] the imaginary world of the screen, of the interface and the reduplication of contiguity and networks." (cited in Bukatman 1993: 104) Virtual space then perhaps is just an externalised connection to the internal landscape, a therapeutic arena to enact fantasies, or to give life to the multiple personalities and possibilities that are repressed in our daily lives, while we remain physically located, stuck, in the chair in front of the screen.

Are the only navigation choices to follow pre-scripted narrative and hyper-linked pathways in the networked computer constructed environments, which based on what has been programmed to be available to us according to the "immutable rules" of the scripting language, as programmer Egan well knows is the case in any machine produced environment? Does this exclude any true self-location and determination, when as Egan suggests, as we fall into our rightfully scripted place in the machine. Do we and may end up somewhere else, somewhere other than where we intended? Can we ever have freedom of choice about who and where are we when we are navigating in virtual space?

>> dimension

Undeniably the World Wide Web's two-dimensional space has transformed society's relationship to information gathering and global locality. The web was constructed in the early 1990's primarily as a two-dimensional space to link texts, with metaphors drawn for the print media – we looked at pages not screens, underlined words became "hyper" links - basically not much had changed from the desktop metaphor - we clicked a mouse button to turn virtual pages, or clicked on images for an often painfully slowly downloading slide show. The web browsers were written as a friendly and familiar domestic spaces where we visited our homepage by clicking on a house icons, searching for information and purchasable products like window shopping via the flat grey frame of our screens.

A global technological information overload, where each day we are faced with a exponential increase in images and texts to process and absorb has lead to a notion of sensory deprivation in the physical world, and a superficiality in information processing. I'm not speaking of the superficial in a pejorative sense, but in the sense that Ollivier Dyens spoke about recently on the *-empyre-* mailing list:

> One must be superficial if one is to survive today. In an encyclopaedic
>
> type society, where knowledge comes from deep and thorough
>
> understanding of information, where information is generated slowly,
>
> superficiality is something to be avoided. But in a society where
>
> information, phenomena, actions, reactions, events and histories are

overabundant, over produced and over analysed, one must be

superficial if one is to comprehend what is going on. (2002a)

This two-dimensional web space, with its morass of available information produced by point-to-point, as well as peer-to-peer computing (P2P)[1] protocol, has become a transformative force into today's world - a compressed view of daily life, information gathering, and global locality. We exist at oppositional points along cable, optic and phone lines, along global time zones, along points of possibilities - a worldview that relies on a horizontal, superficial, shallow approach to navigation. Web browsing assumes the right-handed direction, based upon eye movement of Western print and reading standards and Cartesian systems . This movement to the right is deemed to be normal and a positive movement in time. The constant click, the relentless search for re-freshed information creates differing structures of knowledge, however each hyperlink really only offers a binary linear yes/no choice.

Is this really choice?

>> emmbedded patterns

Over and again in the past decade of my practice as an artist and writer in online space I have encountered this issue of standardisation and homogenised representation in different guises, and each time it has brought a fuller understanding of the relationship between on and offline realities. In my early net.art explorations of online sexuality in *tunnel* (1996) and issues of identity and locality for *line (*1997), I was surprised to find that familiar bodily (masculine, feminine and bestial) based concepts of sex and relationships proliferated online. Through such disparate spaces as Muds, Moos, IRC chat, and World Wide Web pages the early adopters of new technologies played out the same, well worn scenarios that can be found in more traditional print and film media.

In spaces where bodies and locations seemed mutable, where any form or representation was possible, users kept reproducing rigidly defined and conventional readings of themselves. As home pages bred exponentially, photo-real imagery, often enhanced by *Photoshop* type software, proliferated and the web appeared to mutate into a meta photo album. The excitement of inhabiting a space where reality was supposedly only limited by our imaginations was squashed as the net became a repository, both mimesis and memory storage for offline life. It seemed to me that the major differentiating factor was that that online an inversion of our notions of public and private space occurred. Currently this is extrapolated by the blogging

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[1] Point to point infers that we are traveling along straight lines of connection between each other, between servers on the Internet, or as in Peer-to-Peer connection between distinct users computers, as in Napster and distributed information sharing systems.

phenomenon, a practice which brings the once private musings of the diary to a public display as art practice and social commentary.

Later my understanding of these intertwining realities expanded as I explored human | machine | viral symbiosis for *carrier* (1998). Here, as I first worked with Virtual Reality Modeling Language (VRML) to represent differentiated nerve receptors inside the body and computer, the similarly between the code of life and the codes of software became apparent. The languages, order, linearity and logic which produce virtuality, the soft-life and intelligent agents which inhabit the net, were very similar to the languages which produce empirically defined reality. This empirical offline reality is the space I prefer to call hardspace, that is, what is within our bodily grasp. It is what we commonly define through our senses; a space differentiated into objects and categories (Coyne 1999:79-81).

If the relatively passive 2D hypertextual structures have changed the way we think and act, then what happens when we move into three dimensional (3D) virtual reality spaces of the web - worlds written in Virtual Reality Modelling Language (VRML) where we have alternate navigation options of continuous, non-jerky, spatialized immersion in the network? What different choices do the immutable rules of these spaces offer?

By leaving the 2D planes of HTTP, and immersing ourselves in this Virtual web 3D, we physically and metaphorically go through the computer frame into this voluminous matrix of three-dimensional space. We perceive a tunnel into another space, rather than a flat picture when we look at the screen. Here information gathering and navigation is of a different immersive nature - rather than being the primarily frontal activity, involving a centrally directed concentration of sight like the absorption of looking at a painting, it is of a higher degree that has a relation to our whole body.

Ironically the reduction of humanity to defined and coded entities in our contemporary society, specifically in undertakings like the Genome Project, enables us to take on what might be considered a more Eastern philosophical approach which considers all things, human and non-human, solid, liquid and ethereal, to be part of the same living matter. This enhances a contemplative view of the space of the Internet itself as a living organism, one capable of growth, thought and agency. This amorphous electronically produced space, the life world of netizens, is what I call softspace. Here the user assumes a bodily position within the world, their electronic location being marked by their Avatar body. They become a feeling entity, a subject of, and to the accompanying physical dimensional parameters of the virtual space. We physically and metaphorically turn our posthuman selves into strands of information as we pass through the window of the computer frame into 3D space.

However the more I was immersed in the softspace of 3D online worlds the more I could not escape from the persistence of stereotypical visual realism, that is the persistence of narrow-band normative visual representation. While reduction or conversion of humanity to another form can be liberating, the

dominance of a single form of representation, that is a realist visual aesthetic, is limiting. I believe that the awe inspiring void of potentiality in softspaces, and the species of hybrid hard-soft beings who inhabit them, demand more thoughtfulness, imagination, inclusiveness and extrapolation than has been previously given.

>> complex others

If we have Virtual Reality spaces online where anything is possible why do we keep coming back to familiar and stereotypical imagery? Why do we use an aesthetic developed in another form to participate in these worlds? Why don't we seek out something unfamiliar and different in virtual softspaces? These questions are what inspired my *empyrean* work, both theoretical and artistic. My purpose was to understand the evolution and realistic rendering of online Virtual Reality environments so as to be able to both challenge, as well as provide an alternative to these almost standardised assumptions and aesthetics.

My desire as an artist is to create environments that aren't built purely on Cartesian grids, that don't rely on horizons or stable perspectives for their authenticity and navigability. Many online scapes reproduce the corporeal based world by creating an electronic version of familiar hardspaces, a suburban or downtown Internet scape. I want to produce spaces where one cannot easily orient oneself, where the user is slightly uncomfortable. Online space has the potential to offer challenges and unfamiliar experience, and being immersed in an online environment should be more complex than being in a foreign city and looking for a MacDonald's. As there is proliferation of cultural imperialism in online as well as offline space, my aim is to construct spaces that aren't populated by avatars, usually tall, white, silicone-enhanced and (US) English speaking. Instead I have endeavoured to construct spaces where perhaps we can interact and express our multi-dimensional selves differently.

As an alternative my constructed environment *empyrean*, written in Virtual Reality Modeling Language (VRML), is without either the direction or perspective of the ubiquitous horizon line, or the many usual markers of reality, such as stable text or images. The electronic space, reminiscent of both the outer reaches of the cosmos and an underwater scape, is navigated in circular floating motions rather than walking on surfaces. The environment itself is designed to challenge the usual familiarity and control one feels in online worlds, to make the viewer question their complicity with what have become Virtual Reality norms. To an extent this has been successful. Curator and theorist Sylvie Parent, writing in the catalogue for the Montréal Biennale 2000 where the work premiered, noted the unnerving visceral effect that immersion in the world had on the viewer:

>   Oscillating between mastery and loss of control, between the desire
>
>   for transcendence and the fear of emptiness and the unknown, we are

obliged to confront our contradictory emotions with respect to the other world (Parent 2000).

we are floating
on the edge of infinity
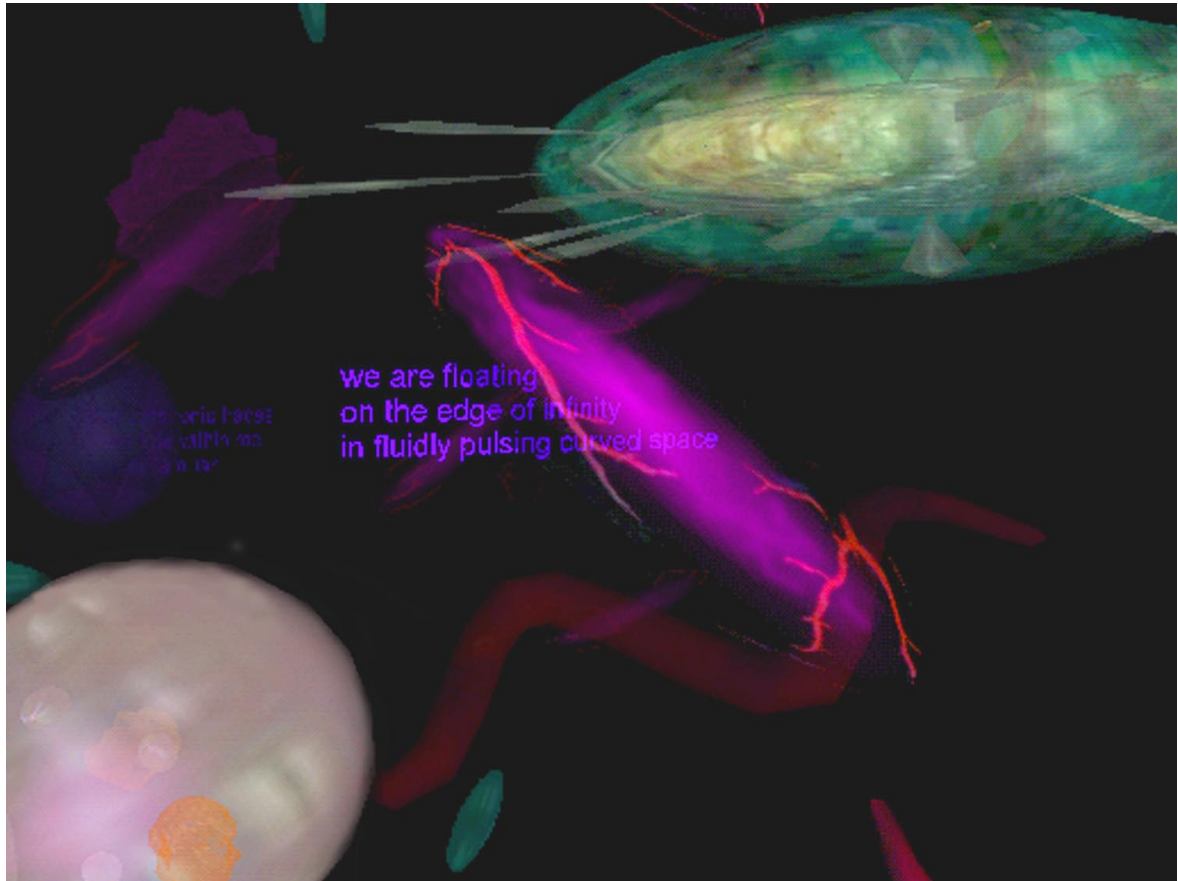in fluidly pulsing curved space

Figure 1: Avatars interacting in *empyrean*

How we are embodied in these spaces as avatars has socio-political and cultural consequences. Where the majority of existing online avatars emulate and hence proliferate narrow, idealised and stereotypically gendered concepts of beauty, often very unrelated to the bodies of their offline personas, *empyrean* provides attractive alternatives. It is populated by electro-cellular avatars - ones based on biological and immunological creatures like macrophages, mucous colonies or viral simulations. To counter the domination of written text in virtual spaces and extend their personalities and uniqueness, these avatars communicate via visual gesture and sound rather than purely textually based language. Avatars, which now populate the massively multi-user spaces of the net in the millions, are rapidly becoming part of a major civilization in their own right.

By exploring these increasingly popular virtual three dimensional spaces, inhabited by simultaneously localised and non-localised (physical and avatar) user bodies, my aim perhaps is also to uncover what is currently obscured by an overlay of the visually familiar. An examination the actual structure of the

mapped coordinate space itself, built with VRML programming language, is necessary to comprehend the underlying moral and aesthetic assumptions of Virtual Space. This code which constructs, which gives life to e-scapes, has at once a morality derived from and entwined with hardspace, and a moral code of its own, based on its unique conformance standards. Simultaneously then, softspace's cascading code is both moral and immoral.

Dimensionality, the almost magical invocation of coordinates x, y and z, which brings life into etheric space, consequently deserves close examination. Of course, the rules of a mathematically based programming language must influence outcomes when they are the building blocks of another life world, namely the life world of our coded characters the avatars. Programming code as a language speaks in data sets and fixed ranges, which brings forth issues of freedom of choice in a space which has a finite set of possibilities. For instance, when we are immersed in these spaces do we really interact any differently from the way we do offline, as both environments have specific parameters, or ranges of acceptability which define our behaviour? Errors of course occur outside these ranges in both domains. Although *empyrean* is a fictive domain, it is inhabited by "real" people, and therefore demands a level of accountability to the users. This requires self reflexivity on my part to examine the relationship between the author and the user, the architect and the citizen, for in online worlds the author uniquely occupies both positions.

Another approach is taken by programmer and composer Adam Nash who uses multi-user 3d space as a live performance medium. Nash has come to believe that Web artists need to develop an appropriate vocabulary to identify the qualities that set Webworks apart from other technologies, rather than adopting one based on cinematic precedents. "The verb 'seeing' is inadequate. Perhaps 'experiencing' is more appropriate" (Nash 2003). In his multi-user work *Memory Plains Returning* (2002), which he performs with both an online audience and a physically present audience in gallery and festival spaces he explores the problematic avatar-as-human idea and proposes that the abstract qualities of immersive spaces can be used as part of a performance experience. In *Memory Plains* the avatars which made up of different sections of the piece were "conducted" in a highly structured performance to visually and sonically *become* the space. These internet works can not be described - they must be experienced. Nash doesn't believe in the myth of 'suspension of disbelief', and he includes the audience in the performance, and welcomes errors and computer crashes which make the electronically constructed nature of the networked art work apparent.

>>text space

On a parallel and complimentary path, a succinct discussion relating to the issues involved the realisation of net.art and online environments can be found at the online *–empyre-* mailing list. I instigated this networked forum in 2002 as a publicly available and accessible discussion with practitioners and theorists working in the artistic, theoretical, curatorial and technical aspects of online dimensional media. *-empyre-* engages with practical conceptual,

critical, technical, poetic and political issues of media arts and cultural practice with global cross-fertilization in digital culture. It is a thematically structured email list of 700+ subscribers, refreshing itself each month by featuring different guests, from diverse locations around the world who exchange views with, and among, the empyre community. -empyre- forum is an autonomous, non-hierarchical collaborative entity consequently there is no dominant group or philosophy at –empyre-, but rather, a zone for focussed improvisation about ideas that matter amongst a global community.

Being Australian based –empyre- strategically aims to create a third space - a soft space which is accessible and inclusive to artists, writers theorists, curators and others, especially those who live and work in the arenas outside the USA and Western Europe. It discuses issues which are often neglected in online arts practice such as those of race, gender and regional biases. It maintains a policy to not feature only the usual suspects or media stars, although some of the guests are very well known, but to provide a level platform for artists and theorists working in interesting critical and artistic interstices. It is an open space where anyone can subscribe.

>> immersion

Along with the immersive experience of reading these texts I urge you to mess around in the infinite voids of *empyrean* or other multiuser spaces. These spaces do not have to be game played or systematically mapped to be understood. There is no specified task, no goal, no hyperlinked narrative pathways to follow, or enemies to defeat. The space is one of individual and community experience, as the symbiosis of each new user with the code creates a unique and changing comprehension. A different logic is in operation where there is no light or shadow, no up nor down, nor top or bottom. It is a space where there appears to be no markers to anchor yourself against - no defining events, no familiar horizon. In 3D space you are not stranded alone in emptiness but immersed in a void of raw potentiality.

The user looking for familiar codes may find an inability to see on this wavelength as the electronic nature of this space is transparent, rendered invisible. You may not comprehend the existence of subtle levels of detail. It is one thing to be immersed in a text, and it is quiet another to become an avatar, to experience your body boundaries as soft and transparent, your skin as translucent, to have no rigid skeleton. Yet it is not merely a fancy or an entertainment, but a social space which impacts on our everyday reality. To dissolve and stretch ones boundaries online, to become an open yet stable system passing through or consuming other objects and bodies, offers a palpable way to reconsider our sense of self and our actions and interactions in the real world of hardspace.

With my intertwined works, the *empyrean* electronic scapes and the *empyre-* mailing list, I, like other internet artists , am seeking to make visible a third space. This is the virtuality which already exists but remains hidden behind | beneath | inside layers of familiarity and dominant rendering. I want to have a broad and inclusive relationship with that sort of computer-constructed

dimensionality. I am yearning to discover, to feel, to see, to smell, to taste, to be fully immersed by the native code of electronically constructed reality on the internet. Providing more expansive ways of thinking about networked space, and constructing sensory and alternative worlds, extricates electronically constructed and populated environments from the rigidity and control of their imperial heritage - flat and realistic representation. You and I, interacting in symbiosis with the network itslef, are becoming part of a larger fluid and shifting artwork.

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