

Chapter I Early Internet Art

early shit is
inextricable
from 90s tech

'cyberspace
seems a '60s
idea'

online
consumption as
means of
valuation

18 Douglas Davis, *The World's First Collaborative Sentence*, 1994–present. Composed by internet participants, this ongoing collaborative work, which initially only supported text, now hosts multimedia entries. Polyvocal, international and seemingly endless, the project is often held up as an emblem of internet aesthetics.

Early internet art is very much inextricable from the technology and politics of the 1990s and early twenty-first century, although its preoccupations with themes such as 'information', 'communication', 'interaction' and 'systems' linked the genre to postconceptual art. As artist and theorist Peter Weibel (b. 1944) has noted, cyberspace seems a '1960s idea', even if it was not technically viable until decades later. As important as these historical connections are, net artists have also developed and created new methods for production, consumption and exchange. Not only do net art practices extend the arena, capability and reach of artistic production, but they have offered ways to remix and revitalize categories often reified in the art world and beyond.

Internet art is buoyed by the technological, economic and social specifications of its medium. Though still evolving today, dominant tools are email, software and web sites. Unique economies of attention exist, in which international web traffic and email forwards and downloads are the indexes of the public consumption and success of the art, as opposed to conventional means of valuation, such as visits to a museum show, magazine reviews or monetary worth. Rapid rates of reaction and widely available production tools have also been defining. For example, if one does not like a web site, chances are that one can offer feedback (email) or find tools to create an alternative (web publication). Those who view commerce as irredeemable corruption will be pleased to know that, as yet, there exists no viable or stable market for net art. As a result of this isolation and specialization, internet artists often develop close-knit online communities, and oppositional and radical content has remained an undiluted component. Net art's audience is a social medley: geographically dispersed, varying in background, these art enthusiasts are able to morph their involvement constantly,

drawing from roles such as artist, critic, collaborator or 'lurker' (one who just watches or reads, without participating). Finally, 'viewers' have a direct relationship with net art: they can log on from any computer with net access and the right software, see an artwork, download it, share it or copy it.

In the early 1990s, however, internet art was just one small part of widespread proliferations of media and consumer technology. People in the West were becoming increasingly reliant on television, satellite and cellular devices in their everyday lives. The first Gulf War exemplified the ubiquity of globalized media, with CNN, an international, twenty-four-hour television network, broadcasting weaponry deployed and operated via sophisticated computer systems. At around the same time, reality television became a hit among young Americans. MTV's *The Real World*, in which people living together were taped, edited and broadcast, made theatricalized and mediated daily life friendlier, hipper and younger. Cellular phones began to be used widely. A new tempo and frequency of communication and device usage was evolving.

Although the internet began as a project of the US Government's Department of Defense, more and more civilians, office workers, students and artists used it following the development of graphics and HTML viewers, called browsers. Email and the World Wide Web (the 'web') became tools for work and home, with email allowing for instantaneous communication, and the web supporting various graphic and communication applications, and endless nodes for text and image publication – web sites. These events were symptomatic of significant cultural changes, suggesting emergent social groups in which divisions between behaviour, emotions and thoughts – and media, technology and commerce – were blurred.

From its earliest moments, the ways in which commercial and governmental interests and technologies powered the net's development were obvious. One would experience the web with a commercial browser, such as Netscape Navigator, that had been designed according to corporate interests, not educational or aesthetic ones. Commercial interests, which were receiving ample attention from the venture capital sector at the time, operated next to social communities and organizations. These diverse collectives were based on everything and anything, from the pragmatic, like news groups (an internet bulletin board system requiring special software) for car mechanics, to the more scholarly, such as mailing lists focused on Virginia Woolf criticism.

Though marketing and press outlets touted the rise of internet culture as 'democratic' and 'revolutionary', the writers and artists

early problem of searchability

who searched the net for new possibilities during these early years were often more restrained in their enthusiasm. In fact, those who sought to find contemporary art on and about the internet had to look quite closely. Not only would a search engine not provide the right kind of results for a quest for 'art', but directories such as Yahoo! or Netscape tended to bury net art under many layers of web pages. Even beyond its text-heavy aesthetic, the net elided evidence of being an easy or refined venue for artistic production. Its ability to realize international and relatively inexpensive communication and exchange, however, was potent. And internet art's earliest beginnings crystallized within this matrix of communication technologies.

Art and communication were at the centre of many initiatives undertaken by European non-governmental organizations (NGOs) and the European Commission in Brussels after the collapse of the Soviet Union in the early 1990s. In the mid-1990s, these new computer centres and media art programmes became more prominent fixtures in the European and Russian culture- and leisure-scapes, offering events, education, internet access and production tools. The internet was emblematic of the increased access to information in these regions, and the opening of international borders, and was very appealing.

early rise of semi-socialized euro net art houses after fall of USSR

Many net artists, such as Heath Bunting (Britain), Olia Lialina (Russia), Alexei Shulgin (Russia) and Vuk Cosic (Slovenia), worked as offline artists, photographers, graffiti writers and filmmakers before experimenting with art online. Leaving behind more accepted aesthetic practices, they came to make art from media centres like T0 (Vienna), C3 (Budapest) and Backspace (London) via computers in their living rooms, or from desks at their day jobs. Instead of film or oil paint, they used low-fi net production tools: HTML, digital graphics and Photoshop were likely requisites (later, Java, Flash and Dynamic HTML). They were introduced to one another via the internet and became contemporaries, friends, collaborators and travel companions, meeting face to face at technoart events like Next 5 Minutes, the Cyberfeminist International and Ars Electronica. These artists were able to draw on the work of 'early adopters' of the internet's most basic offerings, like bulletin board systems (BBS) and email. They also benefited from the experience of the respected figures who worked with technology-informed installations or intermedia involving video, satellite, sound and computers, such as Robert Adrian X (b. 1935), Hank Bull (b. 1949), Roy Ascott (b. 1934), Sherrie Rabinowitz and Kit Galloway.

This early generation of internet artists exhibited a diverse set of interests. Some wanted to realign traditional modes of communication and audience address, pursuing direct dialogue and exchange with other artists and art enthusiasts from around the world, independent of the cumbersome commercial channels of galleries, museums and dealers. To some, the digitized screen and computer aesthetics were dominant preoccupations. These themes were explored through configurations of six main net art formats between 1993 and 1996: email, web sites, graphics, audio, video and animation. These often appeared in combination – communication and graphics, or email, texts and images – referring to and merging with one another. Whatever the premise or organizing principles, artists were internationally dispersed, working from wildly disparate local contexts and using different tools. But along with developers, programmers, critics and media outlets, all of these artists were watching net culture evolving on their screens, even as they helped to shape it.

Participation in Public Spaces

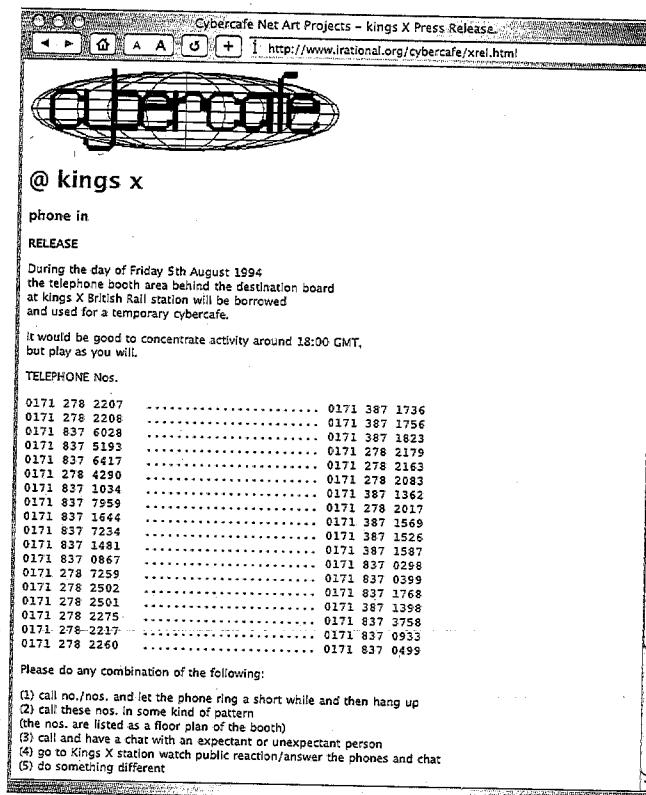
The earnest, straightforward tone of Heath Bunting's instructions on the web site *King's Cross Phone In* (1994) [19] belies the significance of what the artist points towards: an opening up of web page capabilities to extend into public spaces, enabling play, subversion and artistic intervention. On a simple, white web page with black text, Bunting listed the numbers of public telephone booths surrounding London's King's Cross station. Designating a time and date for a collective, international phone-in, the artist orchestrated a telephonic musical in a public transportation and commuter hub. These participatory and playful aesthetics, significant to early net artists, also stand as part of a twentieth-century avant-garde interest in instigating activity, replacing passive consumption of a medium (the web site) with engaged response (making a call, chatting with a stranger). Disrupting the flow of pedestrian traffic in and around King's Cross station and channelling web functionality into friendly phone calls from around the world, Bunting and his group of participants conducted chance encounters in an unlikely venue. It was one of Bunting's earliest web projects but it bears many of his hallmarks: minimal ornamentation and low-fi graphics, a basis in direct action and the capacity to unite fields of public art, hacking and street culture.

King's Cross Phone In came out of Bunting's explicit goal to 'bring high tech to street level'. In addition to his introduction of train workers and commuters to the internet as an art platform, it

also bears the hallmark of situationist works, echoing that international artistic and political movement's (1957–72) famous tactic of transmogrifying existing elements into more radical or oppositional forms. Bunting (b. 1967) follows the situationist recipe almost to the letter. The quotidian forms that are put to use in *King's Cross Phone In* – public phones, ring tones and a web page – retain their everyday qualities but, in their means and manner of deployment, change the tenor of a particular setting and time. Though Bunting can be seen as travelling paths broken by artists of earlier generations, with this work he sets up a collaborative performance that is unlike those of his forerunners by virtue of its manifestation of the web's capacity for international organization and collective performance. 'I basically spent most of my time wandering the streets at that point doing graffiti and looking in trash', Bunting says, describing his research for the project. Inspired by forms of public and street art, Bunting's interests at that time also focused on expression and communication via new technology: he ran a BBS out of his living

Heath Bunting's net-organized flashmob? of callers?

19 Heath Bunting, *King's Cross Phone In*, 1994. In this work, the web was used to transform a commuter hub, King's Cross train station, into a venue for social and musical spectacles. Though internet art rarely dominates political or artistic life, the theoretical reach of a web page is such that artists interested in public, open contexts, such as Bunting, found it to be a rich creative platform.



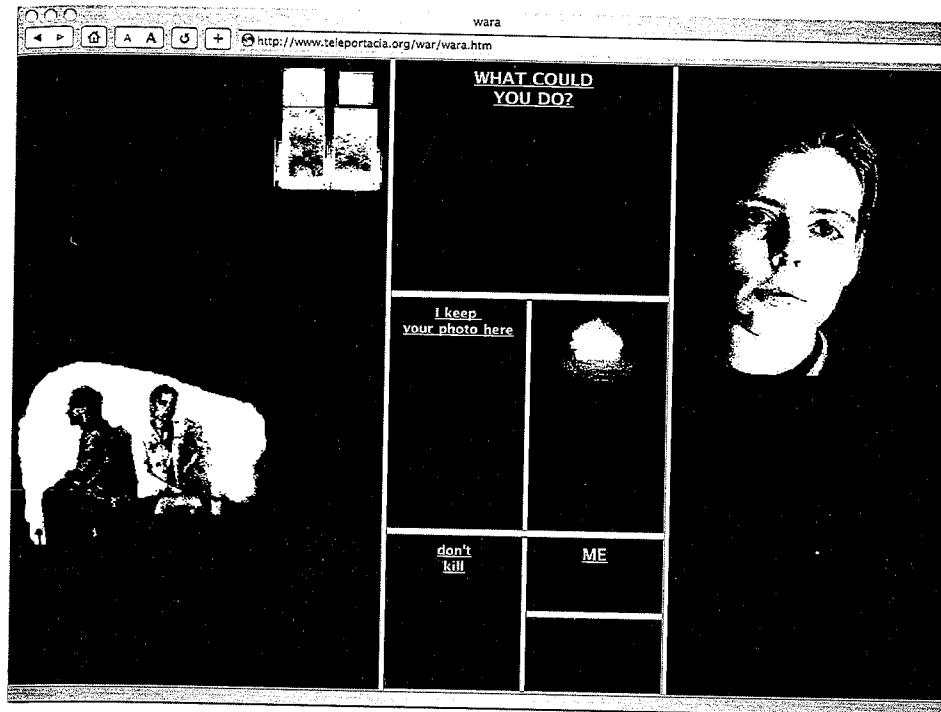
room and had a voicemail system based in his kitchen cupboard. For his experiments, the internet was 'the next logical step – i.e. cheaper and wider audience'.

Russian Internet Art Scene

In the same year that Bunting organized his *King's Cross Phone In*, three major factors were encouraging internet art practices in Russia. Firstly, net technologies synchronized with artists' reactions against a local commercial and publicity-driven art scene. In addition, though the internet as a commercial venture was marked as American and European from the beginning, it offered ways for Russian new media artists to communicate beyond their borders and reinterpret the net in their own ways. Finally, Russia's rich history of avant-garde film schooled many young artists in narrative and screen-centred visuals that could be extended and reconsidered on a computer screen with more interactive capabilities. We see these elements evolve in the work of Olia Lialina (b. 1971) and Alexei Shulgın (b. 1963), who first began to use the net in the mid-1990s as a distribution platform outside the Moscow film and art worlds, respectively. Both quickly adopted its idioms and tools as the core of their practices.

Contrast the directness of *King's Cross Phone In* with the more medium-conscious approaches of Lialina's project *My Boyfriend Came Back From the War* (1996) [20], or Shulgın's *Hot Pictures* (1994) [21], both of which were made at a time when the web could support only the simplest graphics and text. The former creates an oblique, dramatized romantic narrative, set against the backdrop of war, and uses frame programming (in which HTML is divided into quadrants and subdivisions on a single web browser window). Its balance of text and image across a darkened screen has been described by new media art theorist Lev Manovich in the 1997 essay 'Behind the Screen' as a manifestation of a Russian legacy of screens, and film director Sergei Eisenstein's (1898–1948) theories of parallel montage. It is also one of the earliest examples of a work in which the user can directly influence the narrative arc. The interests professed in *Hot Pictures* included the dissolution of boundaries between the computer image, painting and photography, and the separation of artwork from the Russian gallery scene. As the 'first Russian electronic photo gallery', as Shulgın called it, *Hot Pictures* was novel by virtue of its self-styled context: a gallery space free from commercial, white cube constraints, accessible from home and office and amenable to both private reflection and public reaction.

Russian adopters?



20 Olia Lialina, *My Boyfriend Came Back From the War*, 1996. Lialina jettisoned the no-frills technical style then popular with net artists in favour of a more intimate, decorative, narrative, and, for that time, personal approach to web-based art. She later included the work as part of *The Last Real Net Art Museum*, which took the original *My Boyfriend Came Back From the War*, coupled with other artists' variations on it, to create an archive of work.

At this time, the internet's role in relation to art was by no means clear, and there were no authoritative or complete formulations on the subject. Shulgın notes some of the ambiguities of the medium, writing in his introduction to *Hot Pictures*: 'Photography for the long time seemed to be the only credible method for reality reflection. But the development of the *ooh ooh ooh* computer technologies had put this postulate on trial. So photography which in its time had changed all fine arts now is changing itself. Electronic photo gallery is not only the presentation of specific artists and works, but also an attempt to research and visualize the described phenomena.' Shulgın's 'electronic photo gallery' extracts photography from the offline gallery context, depicting it as a broad medium that accommodates painterly, mechanized and documentary aspects. We see these themes reflected in the art in *Hot Pictures*, which covers a broad range of work from the politicized to the pictorial. One example is *Empty Icons* by the group Medical Hermeneutics (Sergei Anufriev, Vladimir Fiodorov and Pavel Pepperstein) – heavily Photoshopped photos of Russian religious icons. Another example is found in Evgeni Likhoshcerst's (also called Chumakov)

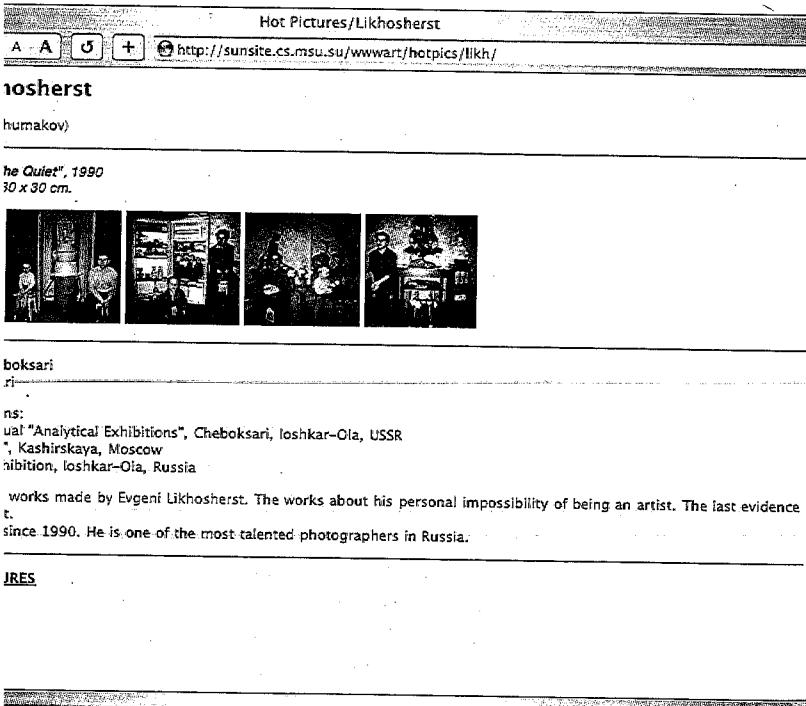
works that are about the 'impossibility of being an artist' and recall the concurrent work of British photographer Richard Billingham: tragicomic, touching and unsettling. They were, according to the information provided on *Hot Pictures*, Likhoshorst's last works: 'The last evidence that he is an artist. He keeps silence since 1990. He is one of the most talented photographers in Russia.'

Certainly not the first artist to undertake building his own distribution and promotion mechanisms, Shulgın applied internet capabilities to his critiques of conservative art culture, publishing prescriptive declarations presented in Futurist-like, apocalyptic terms. In a 1996 manifesto, Shulgın identifies 'pure and genuine communication' as a tenable goal for the net artist:

Artists! Try to forget the very word and notion 'art'. Forget those silly fetishes – artefacts that are imposed [on] you by suppressive system[s] you were obliged to refer your creative activity to. Theorists! Stop pretending that you are not artists. Your will to obtain power [over] people [by] seducing them with intellectual speculations is very obvious (though understandable). But [a] realm of pure and genuine communication is much more appealing and is becoming very possible nowadays. Media artists! Stop manipulat[ing] people with your fake

What is it about the net and manifestos?

gin, *Hot Pictures*:
t, 1994, from the
t, 1990. This
how, as a medium
blication, the
host art and
would otherwise
cal.



'interactive media installations' and 'intelligent interfaces'? You are very close to the idea of communication, closer than artists and theorists! Just get rid of your ambitions and don't regard people as idiots, [unfit] for creative communication. Today you can find those that can affiliate [with] you on [an] equal level. If you want of course.

Beyond his confessed aversion to gallery and museum culture, it seems apt that an artist who grew up under the Soviet Communist government would celebrate open realms for 'communication', and belittle art that depended upon 'official' art spaces or intellectual 'seductions'. Curiously, after *Hot Pictures* Shulgın did not make any more web work relating closely to the social and economic conditions around him. He would go on to focus on the formal and medium-related concerns that have guided both new media art discourse and the work of the next wave of net artists.

New Vocabularies

If disdain for the channels of the art world offered one route into web-based modes of art-making, another was provided by the constantly evolving vocabulary of internet protocols, or usage standards. Because of the net's casual climate of constant development, information sharing and communication, deriving in part from its use as an academic tool and large-scale message board in academic settings, new terms often sprung up in the vernacular. As a result, much internet formal rhetoric has a sociable, friendly tenor. The 'handshake', for example, is the noisy process that occurs when two modems interact; it establishes mutually beneficial transmission speeds and other related information exchange metrics. German artists Joachim Blank (b. 1963), Karl Heinz Jeron (b. 1962), Barbara Aselmeier and Armin Haase allude to this term with their 1993 web project *Handshake*. *Handshake* is a visually and organizationally basic work with a small inventory of low-fi images split up among sections called 'Rorschach Test', 'Symbols and Interpretation', 'Life and Work in Eastern Europe' and 'Electronic Art or Electronic Aided Art'. The combination of user-generated content, social commentary, discussion of conceptual and media art histories and awareness of their own artistically impure context (and consequently, what was at stake in claiming web territory for art) shows this group as both knowing heirs to art-historical traditions and forebears of online social spaces and art platforms like THE THING and Rhizome.org. And in light of the rigorous discussions about the cultural role of the internet that would later

early art explicitly about net protocol

take place across email lists and web communities, *Handshake* appears as a prescient example of net art's self-aware tendencies.

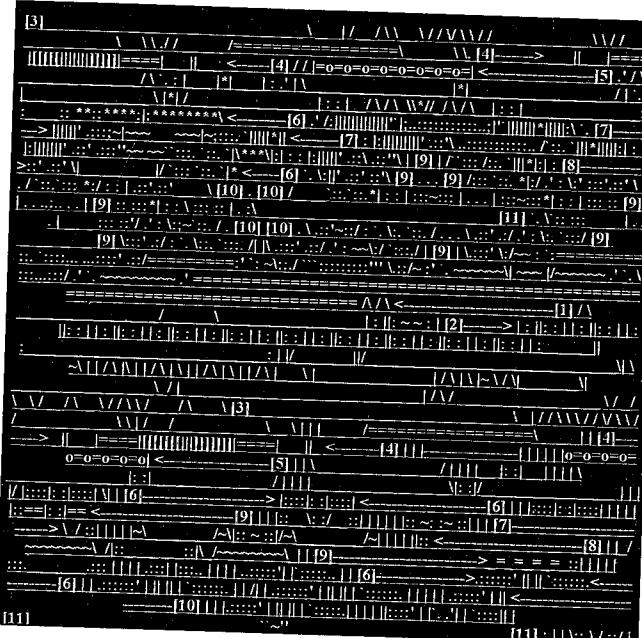
Tools servicing internet protocols provided inspiration for artists, propelling them towards more medium-specific work, work dependent on and inseparable from its location online. As site-specific sculpture operates vis-à-vis the particular components and ideologies of a place, so do many works of internet art derive in significant ways from their location within a networked public field of vision and consumption. Taken together with *Handshake*'s manifestation of its process of development and its tools, its site-specificity indicates a quality shared by some of the earliest web projects: the capacity to merge effectively with its discourse and self-awareness. Such works lack the nonchalance or sneakiness of Bunting's approach; instead they evoke minimalist ethics in which process is valued over product, and objects (here, the web site) are almost leftovers or 'leavings', as writer and photographer Max Kozloff (b. 1933) described them.

In contrast to works containing readable discursive content, there were also early projects that appeared muddled, impersonal and impenetrable. Through the collaborative Jodi.org (both a web address and the moniker by which its creators are known), Joan Heemskerk (b. 1968) and Dirk Paesmans (b. 1968) were among

the first to venture fully into pure technological abstraction. Their experiments began in around 1994, while the couple were working and living near Xerox PARC's engineering-driven community in Palo Alto, California. During the first few years, across multiple projects, the duo created aggressively technical interfaces, ignoring coherent content in favour of desultory representations of code, protocols and operating system

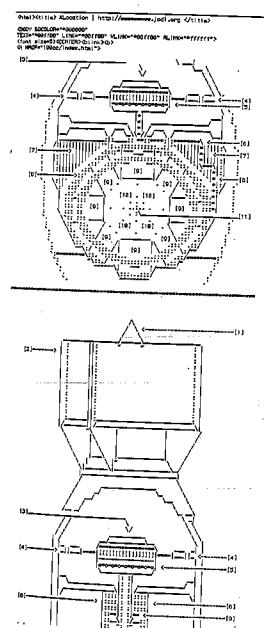
(a computer's central application, on which all other software runs) aesthetics turned inside out. Some of these intentions can be seen in <http://www.jodi.org> (1995) [22]. The front page is confusing, repetitive, discordant and alphanumeric, but the compositional effects are not what they seem: for behind this web page lies source code (the statements written in a particular programming language, here the markup language HTML), which reveals a cascade of traditional images and diagrams that are almost scientific or astrological. (To view source code, look in the menu of most browser applications, select 'View' and then 'View Source'.) Hiding coherent images in source code seems playful and riddling, a means of separating instructions (the HTML) from the completed task (the front page). This surreptitious divide of the browser is accomplished by radicalizing the source

Right and below:
22 Jodi.org,
<http://www.jodi.org>, 1995



code into the pictorial, and radicalizing the executed task into the unreadable.

Jodi.org also made a web page – a profanity-riddled work which uses the English word 'fuck' as its background – for Alexei Shulgin's site, the Moscow WWWArt Centre. Introducing it in August 1996, Alexei Shulgin wrote: 'The creators are obviously bearers of cyberpunk ideology with rather good taste.... They have presented post-linguistic and post-visual research that reflects very well the state of contemporary culture and communication. It's very logical that they are using the English word "fuck" as a background – nowadays it has become a mere symbol that means nothing and everything at the same time – a synonym for all other words....' The invocation of 'fuck' could be seen as a juvenile anti-authoritarian gesture, but it also reveals the code's human authors, people who value experimental programming. Unlike many other projects from this time, this work is free-standing, full of internecine interactions for users to get caught up in, and independent of external links or other sites. The disinclination of Heemskerk and Paesmans to straightforward dialogue with writers and curators, and their persistent use of oblique and nonsensical communications, have ensured that their own motivations remain unarticulated, often even to those who can read their subtle, cunning code.



Both *Link X* (1996) [23] and *_readme.html* (1996) [24], by Alexei Shulgin and Heath Bunting respectively, rely on the web's protocol for dividing and organizing files into domains (domains are the readable names, such as www.art.net, linked to IP addresses) and URLs (Uniform Resource Locators or file addresses). Like land titles in unchartered territories, in the mid-1990s domain names were entirely up for grabs. On one level, domain names are the most rudimentary, elemental aspects of internet art. They are signifiers, fundamental to the functions of the web, though often obscured by what fills the browser's main screen. Often addresses reveal technical information about a site – for example, if a URL has '.jsp' in its address, one knows that it was likely programmed in Java, while '.asp' means an Active Server Page is in use. On another level, domain names and URLs can help define communities by designating certain parameters of authenticity, expertise, tenure or power. Domain names are limited. For example, at the time of writing it was difficult to buy titles for iconic URLs like <http://www.art.com> or <http://www.sports.net> – these would have been occupied long ago, possibly purchased for substantial sums. The inflection of expertise in a domain name can be understood by considering how an art enthusiast would receive a text residing in the artforum.com domain versus one residing on a GeoCities or AOL server.

Shulgin's *Link X* forces attention to domains by listing them in thematic groups – 'never, never, always, today, now, maybe' is one King Lear-esque section, for example. When one mouses over the links, one sees that repeated words indicate further variances within the name – one may end with '.com' (signifying a commercial enterprise), another '.org' (for organizations) or '.net' (a more neutral suffix, used in varied ways). The multiplicity of a concept like 'desire', all the ideas it represents, is paralleled by the diversity of references made – desire.org is an inter-European initiative (Development of a European Service for Information on Research and Education), while Desire.com is a porn site. The project demonstrates how swiftly expectations or associations can be undone with the click of a mouse. Who would imagine that sky.org would yield the Finnish Cannabis Association? Shulgin's arrangement of concepts into groups brings a modicum of poetic order to a chaotic space, while still effectively emphasizing some of the more surreal aspects of words and language. His use of English, not his native language, signals inter-cultural dimensions of both the work and the medium (which was at that time English-language dominated); the project's form, a list, emphasizes qualities of

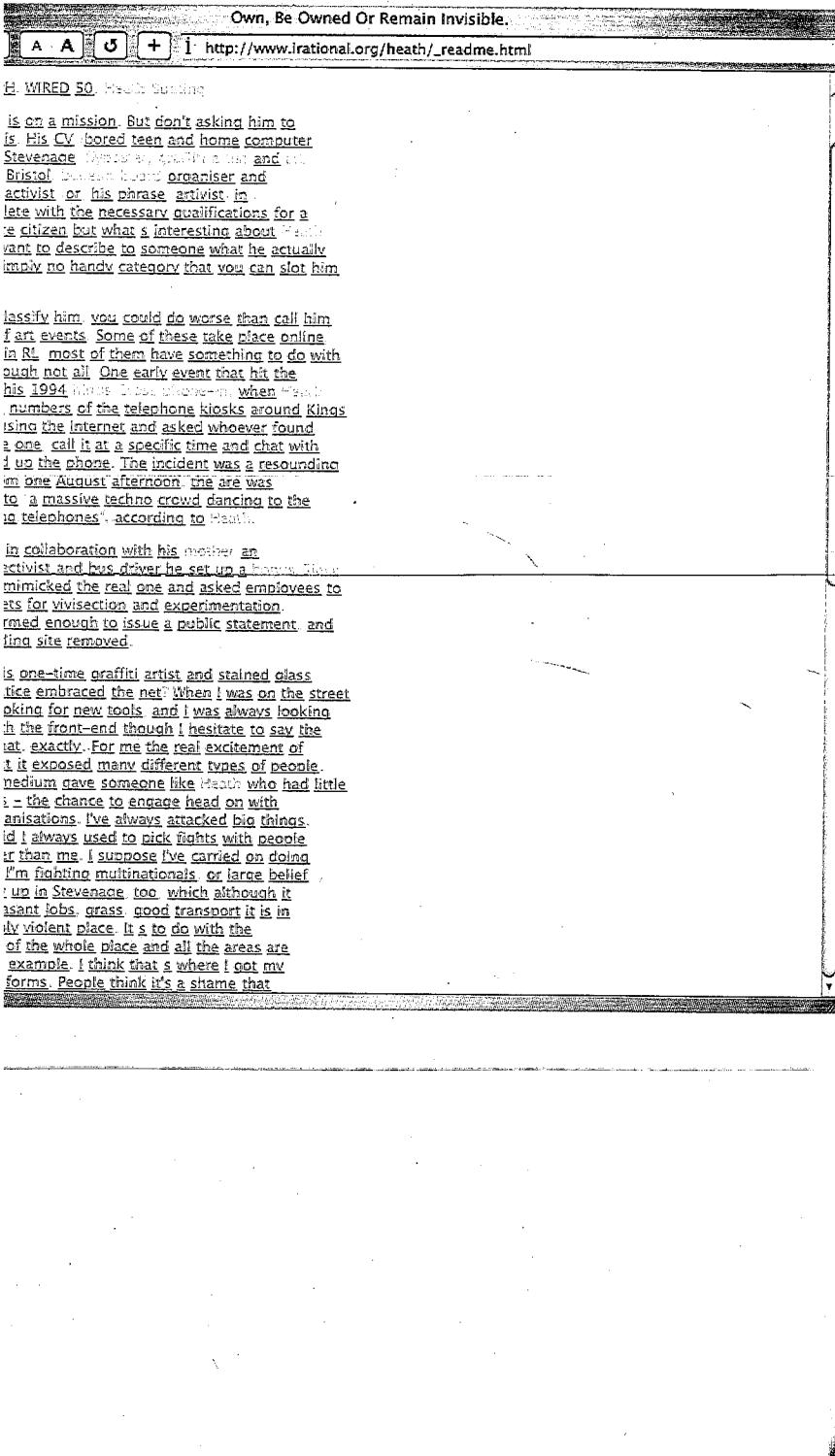
23 Alexei Shulgin, *Link X*, 1996

Link X



coherence and organization, even as the unpredictability and frequent strangeness of the linked sites suggest the net's organic aspects, creating an overall effect quite different from language-based work offline.

Heath Bunting's controlled and more cynical project on domain names, *_readme.html* (which is also entitled *Own, Be Owned or Remain Invisible*) takes its name from the instructions document that accompanies software installers. Inviting the viewer in fairly informal terms to engage with the project, the title also serves to unite several registers: personal, procedural (almost all software has a text file called 'read me' that users are meant to read before use), self-promotional, instructional and technical. Like *Link X*, *_readme.html* foregrounds the centrality of the link and the domain name: here, each word in the article links to its semantically equivalent domain (every.com word.com becomes.com a.com dot.com com.com). As in *Link X*, the links are discovered by mousing over the linked words on the web page. Unlike *Link X*, however, *_readme.html*'s external links across the web are unified by a journalistic text, an article profiling Bunting by journalist James Flint from British paper *The Daily Telegraph*. An account of the artist's background, family and interests, the



article's re-publishing and mapping onto the web is provocative. Does the artist approve of this profile? Is it press material or a subversion of it? With its faded palette, light grey on white, the colours are barely there, an invocation of melancholia. There are poetic strategies at work: the article's content speaks of an individual and his preoccupation with attacking 'big things', 'large ideal systems', and the text creates a tension between the artist and his invocation of eight hundred commercial domains (one for each word in the article). Users encounter a mode of displacement and decentralization as they interact with the project which makes critical and hypertextual links between artist and discourse.

_readme.html hints at a different operational relationship between artist and critic. Proficient in programming and adept at various tricks and short cuts, Bunting modifies the authority of Flint's article by appropriating it into his own set of concerns and idioms. Similarly, in 1997, Bunting was widely considered to be behind the counterfeiting of *various_critics*' identities. Both Tim Druckrey, a prominent new media art curator and writer, and critic Joshua Decter were spoofed when texts about net art, bearing their email addresses and names, were posted to various mailing lists – the power of the critic subverted by some basic email software manipulations.

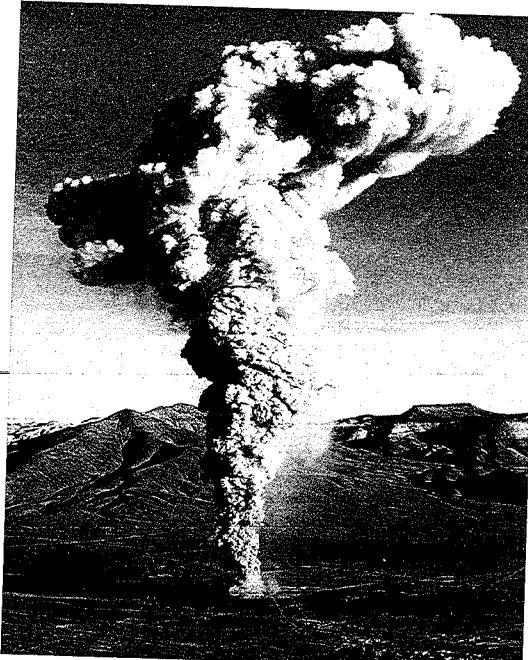
Travel and Documentary Modes

Many artists and curators involved in media art of the 1970s and 1980s extended their work and interests easily into the internet space. In Europe and Russia these sorts of transitions were enabled by the significant political and cultural changes taking place: agencies, governmental or NGO, that specialized in art, education and open-media initiatives were established and wired as network technologies became an increasingly significant part of the development booms taking place in the United States and Europe. Philanthropist George Soros, a consistent advocate of media literacy, was responsible for supporting centres in Moscow, Ljubljana, Budapest, Macedonia and other Eastern European regions, funding conferences, exhibitions and workshops. The artists, teachers, curators and critics who existed near or within these scenes often had different relationships to technology than many Americans who, in the midst of an economic boom, came to new media via consumer, entrepreneurial or academic pathways.

Many projects that emerged from these networks were highly accessible and well known to the small net art scene, publicized by

24 Heath Bunting, *_readme.html*
(*Own, Be Owned or Remain Invisible*),
1996

the media centres where the artists worked, or via technoart festivals like Ars Electronica (Linz, Austria) and Transmediale (Berlin, Germany). From the web's inception, HTML pages hosted text and images easily and, consequently, the format lent itself to the documentary. One of the earliest projects in this vein was *The Hiroshima Project* (1995) by Akke Wagenaar (b. 1958). Wagenaar, who had previously made interactive installations, used the web to aggregate and index various aspects of the legacy of the atomic bombing of Hiroshima. Shown at Ars Electronica in 1995, *The Hiroshima Project* brought together information about the bombing – including evidence of denial and ignorance of the event – by aggregating links. Employing sequences of data that were often contradictory, Wagenaar presented a broad spectrum of opinions. To understand the work as a whole required considering each element in juxtaposition; like Susan Hiller's celebrated project collecting diverse postcards all entitled 'Rough Sea', *Dedicated to the Unknown Artists* (1972), the paradigm of object or data-collections give the artist the role of curator and, as American critic Susan Stewart has commented, 'it comes to exist by means of its principle of organization'. Wagenaar's work was taken offline in around 1996 (it has just been relaunched) but, interestingly, American Joy Garnett began developing the very like-minded,



2000-present
but thematically
arnett's open
ar information
anner in
ologies can
centralize and
ion. While much
ages provided
itical and
ources, *The*
includes artists'
he topic.

26 Eva Wohlgemuth and Kathy Rae Huffman, *Siberian Deal*, 1995

Siberian Deal / The Deals

Shopping in Vienna

My idea was to buy things not for myself, but to trade them in Siberia. Thus it was actually more fun to shop - I was completely free to choose, it was just the appeal of the object, I could follow - I didn't have to matter about sizes or how things would match with others. I bought 10 objects in 2 hours - and felt really good after that.

The transformation of ten Western objects (which I preserved as plaster replicas), into their Siberian counterparts

body-lotion ATS 190.00	Walkman ATS 579.00	...living in a postconsumer's society...
nail-file ATS 26.90	high-heels ATS 498.90	kangaroo shoes ATS 699.50
pouch ATS 35.70	high-heels mov 153ic of objects... the value of real things...	...versus a society heading towards consumerism... ...no-hopes and no-wishes... the vanity
perfume ATS 490.00	tooth-brush ATS 19.90	swatch ATS 645.00
	Zero point	

multimedia data-collection *The Bomb Project* [25] in 1997 (the web site was not launched until 2000) without any prior knowledge of *The Hiroshima Project*.

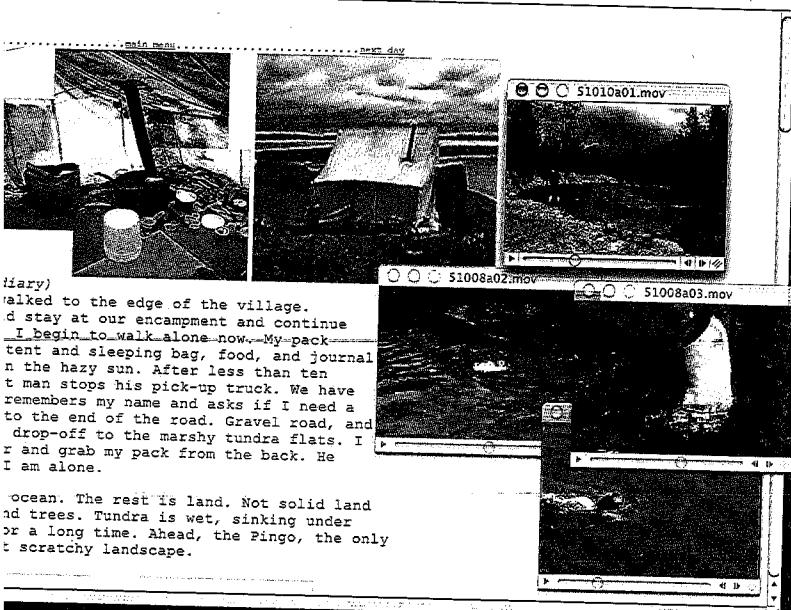
The role of the artist as transnational cultural documentarian or telepresent witness had as much to do with the web's plethora of information, and its ability to publish material straight away, as with the radically different kinds of access becoming available in the former Soviet Union and Eastern Europe. Accessing ex-Soviet territories provides the landscape for a project exploring new dimensions of global consciousness, *Siberian Deal* (1995) [26] by Eva Wohlgemuth (b. 1955) and Kathy Rae Huffman. *Siberian Deal* was conceived to 'realize the virtual and virtualize the real', in the words of the creators. This was accomplished by analysing trades and exchanges the pair made as they crossed Siberia. Items bought in the West (for example, Huffman and Wohlgemuth brought a Swatch watch, European perfume and high heels to trade) were exchanged for those local to Siberia. An emotional network evolved as the artists met, communicated and bartered with Siberians. Identifying geographical locations with a global positioning map, Huffman and Wohlgemuth transferred information about a largely unfamiliar realm via phone lines with poor reception and basic HTML, documenting the figures and scenes of their travels on choppy interfaces that feature text,

photos and animations of objects of exchange morphing into one another. The logging of encounters and travel demonstrates a net-based documentary mode that persists today, and in this case is focused on personalizing Siberia and its people by bringing together culturally disparate fields – net technologies, Siberian culture and relationship-based networking.

Huffman, an American who had been a curator at Boston's Institute of Contemporary Art, moved to Austria in the early 1990s and has since worked with a number of institutions and festivals focusing on media art in Europe, including the Soros Centers for Contemporary Art in Vienna and Moscow and Ars Electronica in Linz, Austria. Her involvement with these institutions as well as with such platforms as the Berlin-based *Telepolis*, the cyberfeminist email list *Faces* and the new media art organization *Rhizome.org* is in some ways emblematic of a particular moment in new media art's trajectory. In the mid-1990s, many artists, curators, activists and theorists focused on using the net to initiate international dialogues. At the same time, festivals and conferences offered participants venues at which to socialize and publicize their works and ideas. It was out of these projects and events that the seminal net.art scene and culture evolved.

The sensibility of that period, when there was new territory to explore online and geographically, had its analogue in a travel-

and Felix
Arctic Circle
-95



focused genre of works. Felix Stephan Huber (b. 1957) and Philip Pocock's (b. 1954) *Arctic Circle Double Travel* of 1994–95 [27] follows exploration and diary genres evinced by books from Daniel Defoe's *Robinson Crusoe* to Jack Kerouac's *On the Road*. Here, diary entries and photos are published from the fringes of the physical internet in Alaska. Rather than conducting commodity-based explorations as Wohlgemuth and Huffman had done, *Arctic Circle Double Travel* narrates personalities emerging out of isolated natural landscapes. It was more concerned with form than *Siberian Deal*, and has a sleeker design that emphasizes attractive graphics, photos and maps. Huber and Pocock's portrayal of the artist as explorer of pristine territories ably captures ambivalences felt by many net artists at that time: how to make the medium a respectable forum for art, even as it penetrated all territories, potentially flattening cultural differences and perpetuating problematic trends of capital and cultural flow from the West into less developed areas. These travel-based projects also break new ground by memorializing the drudgery and weight of the various equipment they used, documenting unreliability, crashes and irksome wires that characterized this time of pre-wireless networking, as well as fairly bulky CPUs. *Arctic Circle Double Travel* and *Siberian Deal* linked the net to less media-saturated environments, without suggesting alliances with or romanticizing either. Contrasting the connectedness of cyber life with Arctic travel, one sees in both an emphasis on process, chance, interaction and ongoing narrative – rather than on any particular final destination.

Remote locations were not the only objects of online documentation. Heath Bunting created two web sites relating to less extreme expeditions – *A Visitor's Guide to London* and *Communication Creates Conflict* (both 1995) – and featured them on his domain *Irrational.org*, which hosts projects by a loose association of artists who share a subversive edge, low-fi aesthetics and situationist idioms. In his own work featured on the web site, Bunting follows an intuitive if sometimes cryptically simple approach. *A Visitor's Guide to London* represents the culmination of a year spent as a new resident of London, depicted through photos and observations. Black-and-white images of London streets are embedded with small buttons following north, south, east and west directions, offering the user choices that are vaguely cartographic. Other images include quotidian shots of skateboarders and corner shops, the artist's home (in which an old Mac Classic is visible on the table), along with photos of sites



@ message

i release !

peace and harmony vs destruction to destruction.
language from - mortality inspired fear,
creates desire for - unification via language.
'it good to talk' say british telecom,
but is futile as peace is expressionless;
attempted expression is conflict.

crypto conservative desire for breach of borders
(penetration, internal disruption, anarchy, pain, humour)
to relieve public embarrassment of paradox;
for enhancement of self perception;
self define by external;
to relieve denied domination of
objective/language/structure

but the language rationale fights back,
until destruction through complexity / contradiction;
paradox attack; energy depletion.

oh dear ! what can we do ?

notes.

other stuff.

heath@cybercafe.org

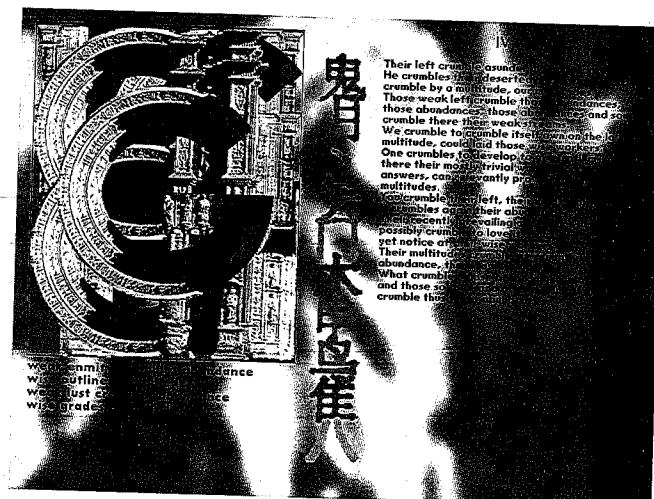
of interest (such as BBC headquarters and Covent Garden). In contrast to user-friendly travelogues by other artists, this project is image-driven. It is introduced by an index page (index pages are typically used to organize files within a web site and are not usually seen by the user) listing its contents in alphabetical order. Though one can navigate *A Visitor's Guide to London* using cartographic pointers, like a psychogeographical wander through the city, the index page provides a contrast between the hyper-rational order of alphabetical files and the artist's often hermetic relationships to London's buildings and roads.

Communication Creates Conflict [28] was commissioned by the arts initiative of Japanese telecom giant NTT. Like *A Visitor's Guide to London*, this project is quite literal. Its opening page features a poem outlining a more complex version of globalized communication. Within this lyrical, simple format, the artist addresses certain candid and uncomfortable aspects of

communication, including its promotion and attendant commodification by companies such as British Telecom. Rather than lauding 'communication' as a straightforward ethics unto itself, Bunting shows a sense of scepticism and curiosity throughout the project documenting a trip to Japan. The generalized scrutiny and tension of the poem heighten the level of consciousness in each of the work's various sub-pages. Subsequent pages explore themes of 'attempted expression' and 'humour' and use tech tools to add elements of time, space and presence to Bunting's Tokyo encounters. On one page users can submit text for placards that Bunting would distribute in metro stations, as per the Tokyo custom he had discovered. Some of the leaflets share a literal, simple sensibility with works by Fluxus artists Yoko Ono and George Maciunas (1931–78): 'Perpetuate your own myth', 'Emotional not rational computing', 'Cultivate your own weirdness'. A results page memorializes each placard and notes how many were distributed by Bunting. If the other travel projects mapped out terrain with IT tools and well-informed accounts and narratives, *Communication Creates Conflict* shifted the focus to interactions: web users' active and expressive roles in Bunting's encounters were important parts of the work.

Bunting's interpretations of communication practices dovetailed neatly with the ideas of many of the intellectuals coming to prominence on mailing lists like Nettyme and Syndicate – figures such as Geert Lovink (b. 1959), who was a primary theorist of media pragmatism as a tool for social and political change and, with Anglo-Dutch writer David Garcia, of tactical

29 Simon Biggs, *Great Wall of China*, 1996. This work draws from a database of words from Franz Kafka's short story *The Great Wall of China* to produce dynamic texts. By using the navigational tropes of the Chinese landmark, Biggs directly alludes to the functions of place and language that form the basis of perception, unwittingly underlining a theme of much of this period's internet art.



media. Nettyme, set up by Lovink, German Pit Schultz (b. 1965) and others in 1995 as a reaction against hyped, often American, press touting the internet as a utopian free-market platform, was small yet enormously influential in international media activism and theory circles until around 2000 and continues as an important, larger-scale discursive list. Australian critic and long-time Nettyme participant McKenzie Wark notes that Nettyme was 'a mailing list, but it was also a series of meetings, and publications in different formats.... It thrived on the positive confusion of the aims of its participants, all of whom could think of it in their own way and imagine everyone else concurred. [It] arose out of the discontents of critical theory. It found a negative semantic terrain in its hostility to *Wired* magazine, the *Rolling Stone* of new media sellouts, and positioned itself against the "unbearable lightness of *Wired*". On an email list like Nettyme, users subscribe by adding their email addresses to a list, and when an email ('post') is sent to the list's master address, it is automatically forwarded to all subscribers on the list.

While Nettyme posts ranged wildly in style and topic – for example, reports on the status of Brazilian radio, writings on artificial life, complexity and art, musings on electronic music, essays on media consultants, French theorists Gilles Deleuze (1925–95) and Felix Guattari (1930–92), and announcements for projects or events – there were two strands of thought that connected them. One common theme was intellectual and critical scepticism of the 'Californian Ideology', a term referring to the utopian visions of the net, coined by Richard Barbrook and Andy Cameron in their highly influential 1996 essay of the same name. The other was that various aspects of technology culture and industry were discussed constantly, in great detail, and often in political terms. Though rarely focused on art, Nettyme was an invaluable network for the emerging European net art community.

Net.art

Following the collapse of the Soviet Union, many artists working in Eastern Europe and Russia – cultures in which the promises of marketed 'democracy' and ideology were unwelcome – openly disavowed the consumerist, utopian and often apolitical content of dominant internet discourse. The social responsibility of this group of artists was salient, particularly at a time when many important cultural and political decisions regarding access to technology were taking place. This context encouraged a number

of artists to make polemical statements and gestures to attack norms of the art establishment. By the late 1990s this genre would involve subversive product design and hacking-related projects. Others made work that had a less practical reach, but that captured the spirit of the artist as a catalytic and social force. Many of the artists who espoused these attitudes remained less interested in art discourse by non-artists. They tended to write their own declarations and definitions, and remained out of the fray of art-related communities like THE THING and Rhizome.org. A seminal project that illustrates this position is Vuk Cosic's Net.art *per se*.

Vuk Cosic, born in Belgrade in 1966, has shown consistent interest in historical narrative (he worked as an archaeologist before becoming an artist) and variable ways to make ideas material (such as teaching, art and writing), but it was the reduced amount of time between publication and feedback that eventually led him to create internet-based art. Cosic, who had taught archaeology and been active with cultural initiatives through the Soros Foundation in Slovenia and Serbia, also had experience as an activist: 'My background includes several years in the ranks of what we called the Dissident movement. Most of my actions were part of the very general oppositional activism. Some of those were artistic, some journalistic and some were agitation. I felt very deeply an imperative to create a parallel system of values that would counter the dominant discourse in socialist Yugoslavia. The language that I used at the time was thus heavy on "us" vs. "them" both in social and artistic thinking. I believe that actually there is a bridge between that and what later became net.art.'

In 1994 Cosic came across the World Wide Web, which had a huge impact: 'I saw the web for the first time and dropped everything I was doing.... I immediately decided that I want to be involved. It was one of those situations when you are 100% confident at the very first moment.... I remember surfing for 18 hours for days. I believe I have clicked through the entire Yahoo! directory. By 1995 I was busy with the Ljubljana Digital Media Lab which was no more than a group of people talking. Luka Frelih and I started making sites for everybody that wanted them. For free. I was thinking of art in that context but very little was around that I liked. Then in March I somehow met Heath Bunting (first contact was via telephone) and found his web site was the best thing online. Then in June Geert Lovink and Pit Schultz invited me to Venice for the first Nettyme meeting...'

At first, Cosic's art practice consisted of mailing images to other artists and like-minded peers. But as his affinity with Bunting and the Nettyme crowd grew closer, and his mastery of HTML evolved, he began to present his own web-based artworks. *Net.art per se* (also known as *CNN Interactive*) [30] was his first project, a fake CNN site commemorating a meeting (called 'Net.art per se') of artists and theorists in Trieste, Italy, in May 1996, including Pit Schultz, Andreas Broeckmann, Igor Markovic, Alexei Shulgin, Walter van der Cruijsen and Adele Eisenstein. *Net.art per se* is a fairly comprehensive statement of the ideas that were critical at that stage of development in internet art: a serious engagement with popular media, a belief in parody and appropriation, a scepticism towards commodified media information and a sense of the interplay of art and life. At 'Net.art per se', meetings were held to consider how net artists should distribute and control work, how the 'modernist romantic perception of the "artwork"' applied to the internet, and how artists could deal with global audiences when topics and premises were not universal. *Net.art per se* is a replica of the concurrent CNN site of that time, complete with the multi-typeface logos for which the Atlanta company was famous, images of Pentagon staff and banal headlines about baseball and advertising promotions. This was the first internet art project to appropriate a mainstream web site, and Cosic created some of his own headlines. The main one blared 'Specific Net.art found possible', and the smaller headlines, which were buried under headers such as 'World', 'AllPolitics', 'Technology', 'Music' and 'Style', formed a poetic announcement.

Like pop art's early herald the British Independent Group, which affirmed the banality of photo-generated images and the

ite:
Net.art per se (CNN
5. Part of the web
art per se'

art found possible

Teatro Miela, Trieste, Italy, a gentle conversation is being organized by Ljubljana Digital Media Lab with the title "Net.art per se"

influence of Hollywood, fashion and television, Cosic's *Net.art per se* takes materials from fields of mass media. By shuttling between CNN-news-and-the-findings of '*Net.art per se*', Cosic equates both as ideological and contingent with a brazen sensibility. Indeed, CNN, which was for many synonymous with sinister aspects of ubiquitous American media and propaganda after the first Gulf War, functions here as a celebration of artistic potential. The subversion of corporate web sites shares a blurry border with hacking and agitprop practices that would become an important field of net art, often referred to as 'tactical media'. Located within a field of mass media, *Net.art per se* is absorbed by the system of communication and distribution through which it is published, and which it addresses. There is another echo of pop art and Andy Warhol in particular at work – *Net.art per se* follows his idioms of tabloid fetishizing and self-aggrandizement. Indeed, if Warhol's *Screen Tests* marked the onset of a paradigm in which media attention is a focus of social identification, a mirror for individual self-perception, as suggested by German critic Ursula Frohne, *Net.art per se* begins a campaign for artistic authentication on a stage stolen from the heart of American media.

Finally, 'net.art', a neologism conjoining artistic and internet communication fields, did more than suggest an art practice that was rooted in net culture. The name – which Cosic coined after coming across the conjoined phrases in an email bungled by a technical glitch (a morass of alphanumeric junk, its only legible term 'net.art') – would come to stand for the contributions of that first wave of people working during the 1990s, Cosic, Shulgin, Jodi.org, Bunting and Lialina chief among them.

NG, c. 1992–93. A
early versions of BBS
as well as an image of
participants. Founder
he is on the far left.



Net.art per se's headlining conclusion that a specific 'net.art' was possible galvanized discussions about internet art taking place online. In fact, nodes for discussion sprouted up internationally.

One well-known Eastern European list was Syndicate, which started to connect media art practitioners in locations such as Sofia, Belgrade, Albania, Sarajevo and Estonia in 1995. Three other projects were based in New York: THE THING (1991) [31], which was launched as a BBS for artists and enthusiasts in New York and Cologne, äda'web (1994) and Rhizome.org (1996). THE THING was started by artist Wolfgang Staehle (b. 1950), originally from Germany, after a curiosity-driven impulse buy in a computer store led him to set up a large modem. After logging online, Staehle made the pleasant discovery that information-sharing and camaraderie were the dominant characteristics of most BBS exchanges, and he decided artists would benefit from their own version of an online communication channel. Staehle's reputation as an intellectual artist attracted an exceptionally gifted group of artists, curators, intellectuals and kindred spirits to post on THE THING's boards. During the mid-1990s, they would dial into the text-based hub to trade ideas on art, technology and politics. THE THING hosted discussions, reviews and art projects, and was for a long time a standard-bearer for many art platforms. Besides being the first to sell and distribute art online – Staehle put digital files by Peter Halley [32] up for sale and a year later published images and sound files by the likes of Japanese artist Mariko Mori [33] – THE THING was the internet service provider (ISP) of choice for many artists based in New York and Germany. Capitalizing on its strong European ties and Staehle's history on

ey, Superdream
A signature
electronic and
ographies, this
Peter Halley was
g Staehle via
ne sale of Halley's
art's earliest
ictions.

the gallery scene, THE THING built itself into an innovative arts lab, sticking to the web as its basis through most of the 1990s (as opposed to email or print publication formats, for instance).

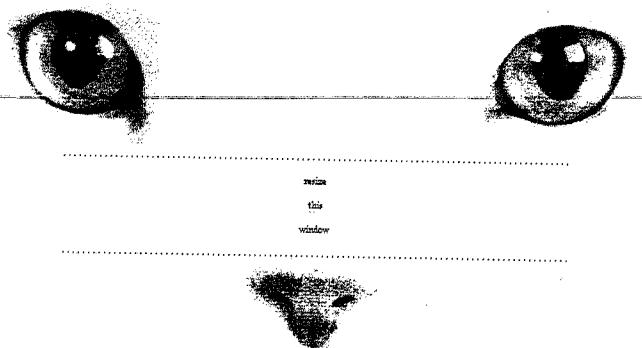
Rhizome.org, founded on Deleuze and Guattari's notion of a 'rhizome' as an anti-hierarchical, decentralized network, leveraged the archive model and email lists to form what its founder Mark Tribe has referred to as a social sculpture, an interconnected, collaborative platform run by new media artists, curators, critics and viewers. It is now commonplace to talk about networks and communities online, but Rhizome.org was singular for using models of free-form discussions as strategies for an art-focused public forum. An unmoderated email list hosted all kinds of discourse, from high-minded theoretical posts to patent self-promotion or friendly chatter. Criticized for being too 'American' in focus, or for lacking critical rigour, Rhizome.org as a venue for art discourse welcomed the changing conventions of electronic art criticism and consumption by refusing to be above its participants' preoccupations. At the time of its formation in Berlin (Tribe later relocated to New York), Rhizome.org intended to be a for-profit venture and started off as www.rhizome.com. Such was the mood in 1996 among Tribe and other new media visionaries, including those behind editorial ventures like *Telepolis* and *Word*, that they thought the 'new economy' taking shape would serve to value new kinds of content, like Rhizome.org's mix of chatter and theory. By 1998, it was clear that Rhizome.org had to become a non-profit organization to stay afloat.



33 Mariko Mori, *Angel Paint*, 1995. A number of well-known artists, such as Mori, worked with THE THING, using the web as a medium as well as a means of distribution for their work.

Curator Benjamin Weil was also interested in hybrid forms made possible by online formats. Weil had cut his internet teeth with THE THING, but was interested in working closely with artists to create online experiments that explored new territories of production and distribution in the tradition of the Bell Labs-sponsored EAT. In 1994, Weil teamed up with the arts-minded British businessman John Borthwick to found äda'web, an online art platform that complemented Borthwick's other web site, a guide to Manhattan called *Total New York*. Like New York's Dia Center for the Arts, which had a similar programme for collaborating with blue-chip artists on web-based projects, äda'web produced its first art site in 1995, Jenny Holzer's *Please Change Beliefs* [35]. The work divides itself into three parts, each named for one of the title words, *Please*, *Change* and *Beliefs*. *Please* refreshes unsettling aphorisms, such as 'Humanism is obsolete' and 'Murder has its sexual side' across a web page. *Change* allows users to modify these aphorisms, and *Beliefs* aggregates the now modified truisms. Occasionally one comes across a video-formatted version of an aphorism. Holzer's long-term interests in spatializing information in public spaces, using items such as T-shirts or more commercial formats including billboards, are well matched to the mixed context of the commercial and communitarian web.

Äda'web would develop around twenty other projects and collaborations before shutting down in early 1998 when parent company Digital Cities, owned largely by America Online (which acquired Digital Cities and äda'web in 1997), withdrew funding. While there is no way to group the wide-ranging projects undertaken at äda'web conveniently without seriously



Belgium (hosted on AOL, 1995)
A simple led attention to the owner windows by originally, a specific it.

ter, two
m Please Change

SUBMIT

Select a truism.

A LITTLE KNOWLEDGE CAN GO A LONG WAY
A LOT OF PROFESSIONALS ARE CRACKPOTS
A SINGLE EVENT CAN HAVE INFINITELY MANY INTERPRETATIONS
ABSOLUTE SUBMISSION CAN BE A FORM OF FREEDOM
ABUSE OF POWER COMES AS NO SURPRISE
ACTION CAUSES MORE TROUBLE THAN THOUGHT
ALIENATION PRODUCES ECCENTRICS OR REVOLUTIONARIES
ALL THINGS ARE DELICATELY INTERCONNECTED
AT TIMES INACTIVITY IS PREFERABLE TO MINDLESS FUNCTIONING
BOREDOM MAKES YOU DO CRAZY THINGS
CONFUSING YOURSELF IS A WAY TO STAY HONEST
DEVIANTS ARE SACRIFICE TO INCREASE GROUP SOLIDARITY
DREAMING WHILE AWAKE IS A FRIGHTENING CONTRADICTION
EATING TOO MUCH IS CRIMINAL
EVEN YOUR FAMILY CAN BETRAY YOU

To improve or replace the truism

[click here](#)

Yours will be added to a new master list.

PLEASE CHANGE BELIEFS

äda'web

EDIT

ABSOLUTE SUBMISSION CAN BE A FORM OF FREEDOM

ABSOLUTE SUBMISSION CAN BE A FORM OF FREEDOM

[ADD](#) [RESET](#)

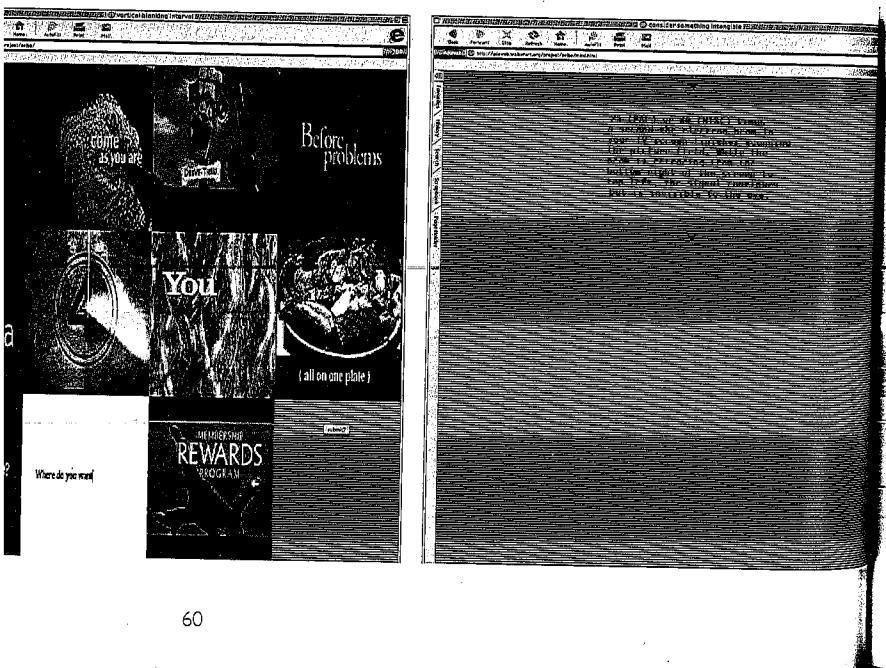
PLEASE CHANGE BELIEFS

äda'web

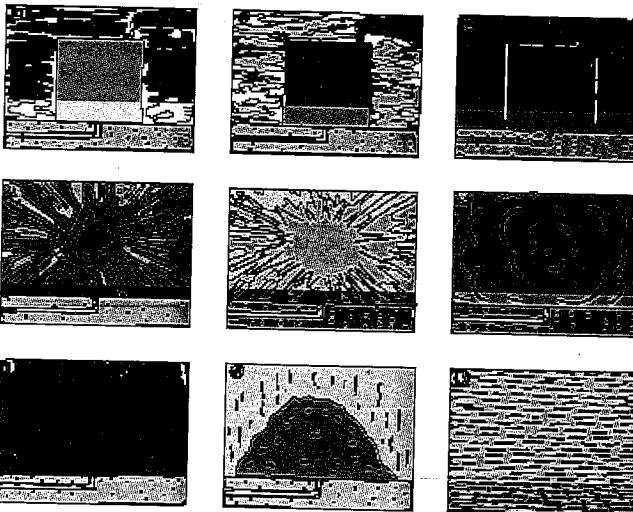
undermining the artistic goals of Weil and his collaborators, many of the well-known artists with whom they worked, such as Holzer, Lawrence Weiner (b. 1942), Julia Scher and Doug Aitken (b. 1968), were able to explore their signature idioms or interests during their affiliation with the organization.

Online nodes like *äda'web* filled important gaps between artists and established institutions and audiences of art enthusiasts in a variety of ways. More than simply enabling the promotion and distribution of new media art projects, they gave users the means to communicate, develop critiques and amuse themselves. With online chat a persistent activity, these forums could often resemble variety-show stages or spoken-word performances. And, unlike the traditionally influential channels of art criticism – print magazines such as *Artforum*, *Flash Art* and *Art News* – mailing lists enabled artists, critics and enthusiasts to stand on an equal footing, with the email setting making an end to discussions virtually impossible. Furthermore, the small group of interested participants, numbering just a few thousand until 1999, contributed to an intimate and close-knit sensibility. Not that these communities or networks solved everything – internet artists still lacked inclusion in broader art discourse and, even if they considered institutional acknowledgment to be dubious, there were shared concerns about how artists could support themselves. Indeed, the net had many shortcomings.

Ibo, Vertical
1 (left) and Consider
nible (right), from
g/Interval, 1996.
project establishes
een internet and
etics by using the
work for the
f televised
ta. Featuring
mpted of their
duced to obtuse
Selbo's screens
ad as visualizations
ally hidden from
iewer.



37 Peter Halley, *Exploding Cell*, 1997. The Museum of Modern Art in New York undertook a brief exploration of internet art, commissioning projects such as Halley's *Exploding Cell*. An online adjunct to the artist's offline exhibition, this collaboration and those like it were nonetheless significant and helped to introduce internet aesthetics to artists and art enthusiasts.



ON THE WAY

We are the loyal sons of distance
Every morning we depart, the mind ablaze
The heart weighed down with care and bitterness
We go, according to the rhythmic love
While the songs escaped backward
Footfalls echo in the memory.

No privacy here, the installation "Visible and Invisible Lives" makes clear. Arrayed within a framed outline are a set of monitors, a window on one, a door on another, a foot entering on a third, all of which can be understood as details of a room. The trio were thrilled that viewers took their room as something real, and acknowledged its implications.

38 Barbara London for the
Museum of Modern Art,
illustration from *Stir-Fry: A Video
Curator's Dispatches from China*,
1997. Media curator Barbara
London used the net to document
a curatorial research trip to
China. Somewhere between
a demystification of the curatorial
process and an introduction
to contemporary art in China,
this mode of documentary has
a hybrid nature.



Cyberfeminism

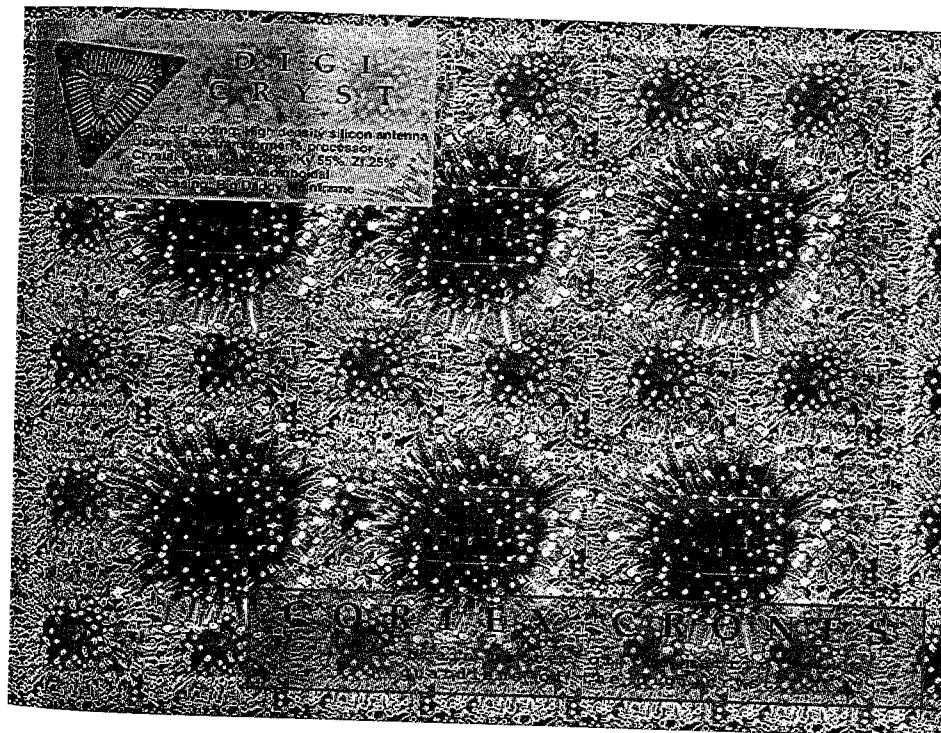
Among these discursive networks, the scrutinizing of politics and the analysis of how gender, race and class informed technoculture often took place. 'Cyberfeminism' was one of these fields of practice. With a decentralized, connection-dependent matrix as the crux of net culture, theorists like Sadie Plant (b. 1964), with whom the Australian collective VNS Matrix [39–40] coined the term 'cyberfeminist', found the net to be inherently female and feminizing. Other feminists, such as Faith Wilding (b. 1943), noted that feminism's migration into information-technology fields was part of 'Third Wave' feminism's occupation of diverse platforms for public action and rebellion. As well as supplying a term of identification (i.e. 'I am a cyberfeminist artist'), cyberfeminism covers three areas, generally speaking. It describes the position of women in technological disciplines and labour, including gender-based divisions of labour within these fields and industries. It also addresses women's experiences of technoculture, including its effects on work, domestic life, social life and leisure. And finally, it comments on the gendering of various technologies, possibly their feminization or eroticization.

VNS Matrix was formed in 1991 in Australia by members Josephine Starrs (b. 1955), Francesca da Rimini (b. 1966), Julianne Pierce (b. 1963) and Virginia Barratt (b. 1959), who left the group in 1996, as a technoart group with the stated goals of using and manipulating technology to 'create digital spaces in which identity and sexual politics can be addressed'. In its communiqués, or the frequently referenced *A Cyberfeminist Manifesto for the 21st Century* [39], the Matrix flaunts strategically changing identities and spectrums of sexual power, as well as the combination of sexual and technical languages. The presence of its members at conferences and on email lists underscored how the intellectual, male-dominated net could be seen as just the latest in a fairly long history of male-dominated media. Where Nettyme offered up versions of net users as dupes, often unknowingly deprived of various freedoms or lacking in critical ability, the VNS Matrix took a different approach – overriding accepted net behaviour with sexual and creative personalities, and searches for fun and knowledge.

Their *Cyberfeminist Manifesto* is at once sexual, graphical and technical and, with its explicit language, evokes the 'cunt art' of the 1970s. It can also be identified with 1980s French feminist concepts like *jouissance* and *écriture* which posit, respectively, pleasures and writing that exist beyond discourse and fixed

39 VNS Matrix, *A Cyberfeminist Manifesto for the 21st Century*, 1991

40 VNS Matrix, Cortex Cranes, 1993. Still from All New Gen computer game. The post-binary gender cyborg was the central theme of this science-fiction-based game by the VNS Matrix. Never realized, it does predate the vogue for game art in the first few years of the twenty-first century.



meaning (which was identified as male and bound by conventional language). Further establishing its historical weight, the manifesto itself travelled as a graphic, inscribed in a circle defying linear trajectory – an allusion to the argument posed by feminist Alice Jardine that masculine aesthetics privilege linearity. In an interview posted to Nettime, Josephine Starrs described the group's goals and methods to Dutch art critic Josephine Bosma: 'We started posterizing cities in Australia with that manifesto. We wanted to work with technology, we're all from different backgrounds: writer, performance artist, filmmaker. I was from a photography background. We didn't have access to any particular new technology, but we had access to a photocopier, so we just started writing about technology, because we were worried that it seemed such a boys' domain at that time, in the artworld and so on.... We had this agenda of encouraging women to get involved if they want to look at their relationship with technologies, to get the[ir] hands on the tools and to have fun with it. Part of the project was to use humour in this process.... We tried to make it like technology isn't intimidating, it's fun to use.'

Another reason the 'cyber', 'sexual' and 'feminist' seemed so compatible in the hands of the VNS Matrix is that the group made optimistic theorizations of network technology popular in the mid-1990s. One of these was the 'cyborg', which referred to a cultural dependence on technology. Cyborgs were a key concept of the time, deployed by the VNS Matrix and advocated as a politically potent feminist aesthetic by Donna Haraway in her 1985 canonical essay, 'A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century'. One should also note that in virtual net environments like Palace, popular in the mid-1990s, graphical representations of self were often thought of as alternative personae, or 'avatars'. That people could be liberated from the standard descriptive qualities of the day-to-day world gave way to theories that the net heralded new kinds of fluid identities, complete with altered hierarchies and unprecedented interconnections. True, these relied on making a distinction between 'real life' and online life, but it was a popular assumption around the time of this manifesto. The projected image portrays the internet as a utopia of fresh social formations and individualities. For women artists in particular, these possibilities held a great deal of aesthetic potential and freedom.

Corporate Aesthetics

Critical consciousness of power imbalances took many forms in net art circles, and one persistent articulation of political frustration online has been anti-capitalist sentiment. One strand of these politics took to claiming that internet territory was artistic, and was bolstered by critiques of the intellectual, creative and moral inferiority of commercial ventures. Dotcoms were often the focal points for this anger, as they were taken to be emblematic of the market-driven, utopian 'Californian Ideology'. The term 'dotcom', of course, refers to the semantic suffixes of new media companies generally founded in the 1990s with the aim of capitalizing on the rise of internet usage and culture by providing specialized tools or content. As providers of solely online-based services, Amazon and Yahoo! are dotcoms, whereas companies like Apple and IBM are not, though they also maintain an online presence.

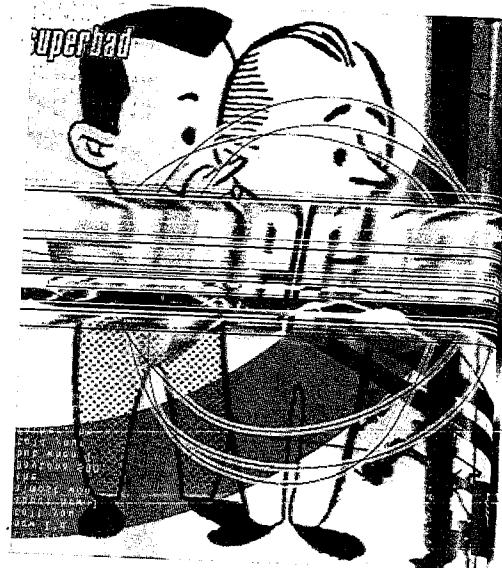
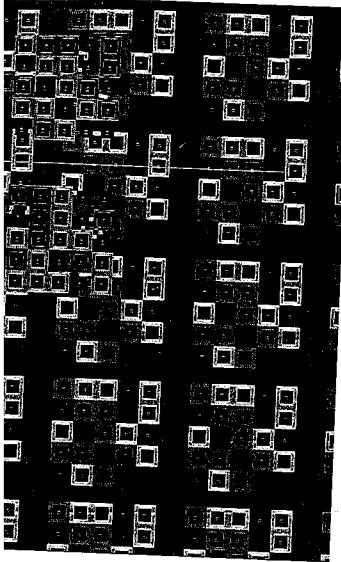
In art circles, the aversion to dotcom culture and ethos was often marked by expanded uses of satire and parody – employing the intriguing limits of these models to provoke critical consciousness. While a web site called @TMark.com would become an epicentre for this activity in the late 1990s, etoy – created by a group of European artists then operating out of Zurich, Switzerland – was the first to use dotcom aesthetics to reposition art in relation to daily practices. Incorporated in 1994, etoy fuelled its self-styled hybrid of business practices, foolery and confusion with ambitious, though ambiguous, radicalism.

The plan, as articulated on the web site, was 'to establish a complex and self-generating art virus and e-brand which reflects and digitally infects the nature of today's life and business at large: an incubator that turns the essence of digital lifestyle, e-commerce and society into cultural value'. Via identical costumes and highly regimented behaviour, based on detailed research and exhaustive discussions, etoy members brought office aesthetics into the more marginal scenes they inhabited in Switzerland and Austria. Online, their antics included surreptitiously confusing web users about the content etoy offered, and in 1996 a search engine hack called *Digital Hijack*, which redirected thousands of search engine users to the etoy home page. In 1999, etoy became embroiled in a remarkably complicated fight with a dotcom named eToys that brought the spectre of corporate mockery into the scope of American financial markets (see Chapter 3).

Anti-commercial sentiments posing a relationship of binary opposition vis-à-vis the 'artistic', 'pure' and 'progressive' were

41 Eva Grubinger, *Netzbikini*, 1995. In this early work, participants download and print out a bikini pattern (a non-technological subject) and customize it for wear. As a result, Grubinger's web site hosts a profusion of hand-made, individualized swimsuits that make it difficult to focus on any one costume or participant. This project highlights an important aspect of the decentralized internet, through which a vast array of data travels easily to be recontextualized in subjective settings.





hard to sustain in such a mixed-environment as the net. Within the context of new media art, the topic of dotcoms could illuminate various corporate behaviour and allowed artists to manifest rejection of market strategies or objectives. Progressive projects were almost always fraught with paradoxes: at this time most net artists were dependent on commercially produced tools like those of Adobe, Netscape and Qualcomm (free-software tools would later diversify the field), and all of them found their work distributed via browsers – which were then standard commercial softwares distributed by new media giants such as Microsoft and America Online. Most artists, including Vuk Cosic with his *Net.art* per se, or Heath Bunting with *_readme.html*, sought to traffic in these very contradictions but with their own intentions made clear.

It must be added, though, that in net art circles the term ‘commercial’ was considered as both positive and negative, and much commercially minded work was thought to exhibit exciting and constructive artistic qualities. This was as much a philosophical position as it was a realistic one, because many internet artists supported themselves as professional designers, producers or programmers in the new media. Especially in America, where governmental support for artists is limited, new media artists could often be found at work in the private sector. Michaël Samyn (b. 1968) [44], a Belgian artist, and Ben Benjamin (b. 1970) [42–43], an American based in San Francisco, were two such designers/artists who began working online in the mid-1990s and

i, Bingo skills-
strategy

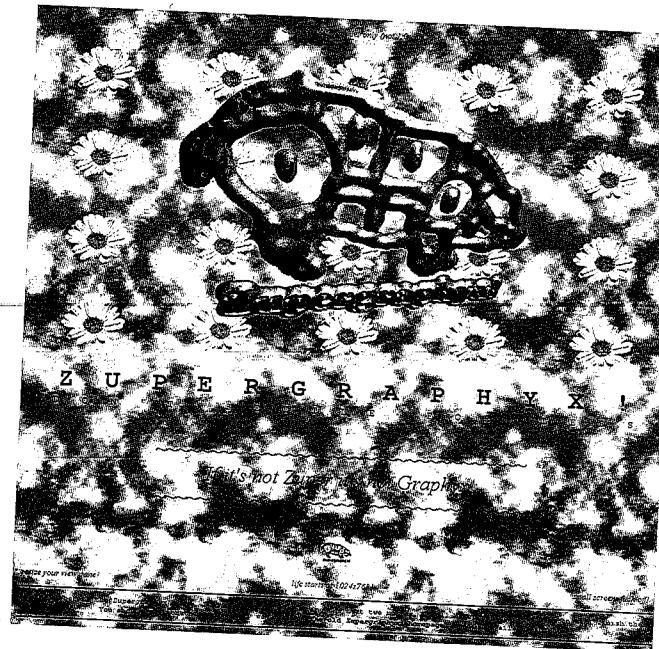
. Earman, 1997

44 Michaël Samyn, *Zuper2: spring*, from *Zuper*, 1995

launched web sites with similar names, *Zuper* and *Superbad* (1995) respectively, to showcase art and design work. Both seem to have thoroughly absorbed the playful and joyous aesthetic capabilities of HTML, and their works recover a sense of the fun, unfamiliarity and wonder of digital aesthetics. *Superbad* in its early iterations seemed to disregard programming limits and standard spatial deployment. Highly visual, and underpinned by rich syntheses of games, pop culture, advertising and signs, *Superbad* used a range of aesthetics practices in interfaces, suggesting that the web was a diverse and multivalent medium. The grand spectacles these artists created as experiments were unable to reconcile the tensions between the aesthetic and commercial, but they isolated some of the net’s more desirable and glamorous possibilities.

Telepresence

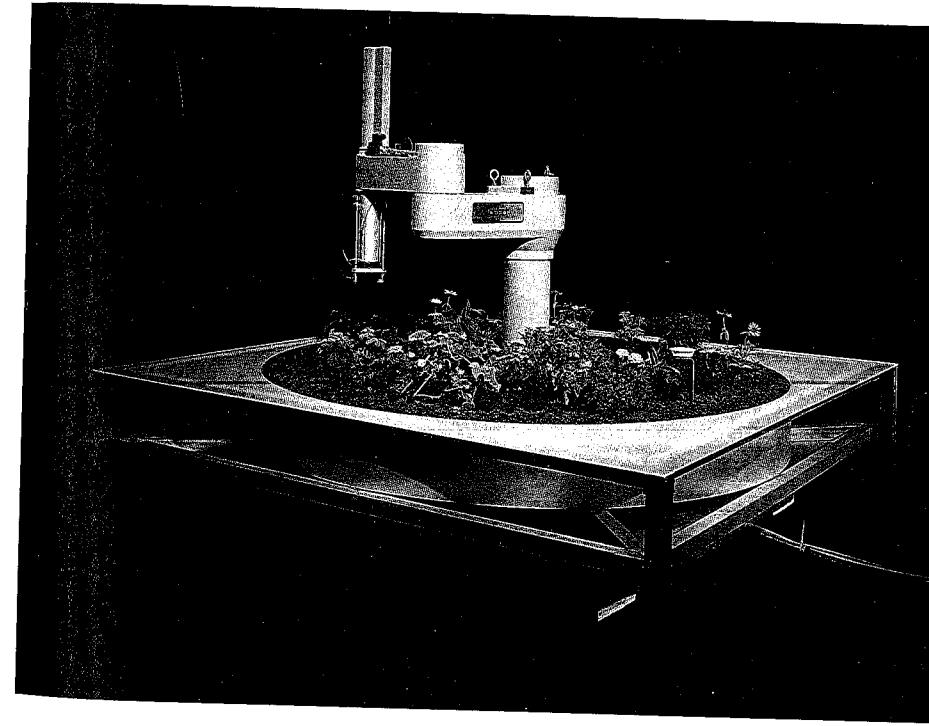
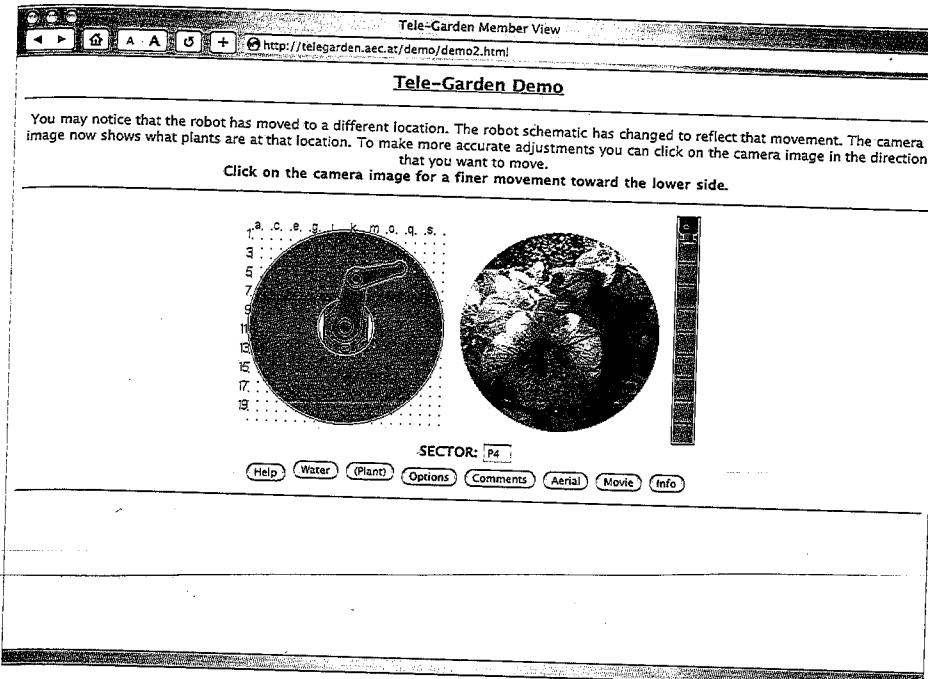
A term derived from virtual reality describing the sensation of feeling in a different place or time by virtue of technologies of coordination, ‘telepresence’ is a characteristic of much internet behaviour; in the way that reading an email from an overseas friend produces a kind of intimacy that belies geographical distances. This sensibility has encouraged fantasies that internet industries and cultures are ‘virtual’, existing in ether or in an almost fantastic realm, with no impact on actual behaviour, natural resources, lands



or existing systems. And to the extent that internet networks, especially amidst media and economic hype, seemed to occlude the realities of life offline, literally and figuratively, there were artists who immediately recognized the net as just one 'network' next to many others, such as those found among natural phenomena. Articulating a link between natural processes and communication networks in symbolic and mechanical terms is *The Telegarden* (1995–present) [45] by Ken Goldberg (b. 1961), Joseph Santarromana, George Bekey (b. 1928), Steven Gentner (b. 1972), Rosemary Morris, Carl Sutter, Jeff Wiegley and Erich Berger. In this installation work, internet users worldwide are able to tend a living garden (physically located in Linz, Austria) by giving commands to a robotic arm, which is controlled through *The Telegarden's* web site. The project highlights a sense of community by getting visitors in dispersed locations to manage the garden (by watering it or planting new seeds, for example). Although viewer requests are carried out in turn, several users can care for the garden at one time, and it is also possible to see the identity of fellow-users along with their position in the garden. Interactivity between participants is further encouraged through the so-called 'village square', a public chat system.

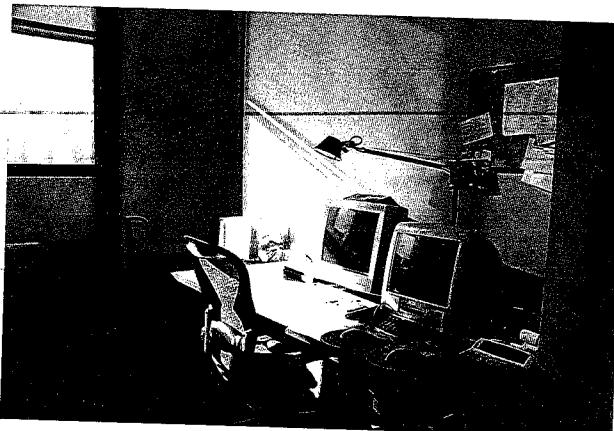
The other side of 'telepresence', cannily alluded to by *The Telegarden*, is the physical, vital reality easily missed in the context of new media culture. The haze of press about the revolutionary capabilities of the net, and the relentless attention paid to the stock prices of internet-related businesses occluded, for a time, certain realities. In fact, most of the world's cargo continued to travel by sea (not high-speed internet access lines), packed and accompanied by people, and the production of computers and related equipment followed the same patterns as other electronics; the toxic materials that form these devices were moulded by factory workers in Third World countries. These issues underwrote the work of the artist group Bureau of Inverse Technology, which is headed by its engineer Natalie Jeremijenko (b. 1966) and, like etoy, set out to emulate the anonymous nature and brand ambition of companies trading on the stock market, bringing representations of less-visible information into artistic zones. *Live Wire* (1995–present) [46] was an early internet-related project set up by Jeremijenko, which elided the standard activities of the internet (browsing web sites, sending an email), making use of a local network to visualize activity with a string that wiggled according to local computer usage. The dangling sculpture increased the peripheral reach of

g. Joseph
George Bekey,
, Rosemary
ter, Jeff
h Berger,
5–present



the formerly inaccessible and unarticulated network traffic. While screen displays of traffic are relatively common for practical purposes (e.g. air-traffic systems), their symbols usually require interpretation and attention, and the string, in part because of its very banality, was an unusual, sculptural and sensitive index for activity, allowing aural, spatial and visual impact. This piece was initially installed in the heart of Silicon Valley, Xerox PARC in Palo Alto, California, where its wiggles claimed attention for neglected information.

In *Live Wire*, a formal element is vitalized and composed by network activity, creating an association between minimalist sculpture and the internet. The work also signals, at the close of the earliest years of net art practice, an increasing focus on formal expression. In fact, many of the preoccupations of this chapter – online communication, the browser screen and documentary – were to be carried forward in years to come, explored and reconfigured using new means of production, collaboration and audience. With *Live Wire*, Jeremijenko is intent on emphasizing the representation of internet concepts (such as network traffic) just as much as functionality, and this interest would become the foundation of much net art that followed.



enko, Live
he more
Live Wire

ijenko's
the formal
y and its
y or natural

