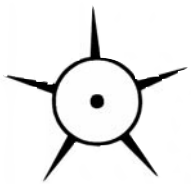
next Cyberfeminist International

contents



editor: **Cornelia Sollfrank**
Old Boys Network
published by: obn, September 1999
design/layout: Cornelia Sollfrank
copyright: the authors
contact: boys@obn.org
printed by: Hein&Co, Hamburg

url: www.obn.org
mailorder: www.obn.org/reader
snail mail: obn, Eppendorfer Weg 8 D-20259 Hamburg
cover icons: Irena Woelle, Mare Tralla, Lee Bull, Mariko Mori, Name Diffusion

editorial

In March 1999 the "Next Cyberfeminist International" took place in Rotterdam, the Netherlands. It was the second big international meeting of cyberfeminists and came together thanks to the initiative of Corrine Petrus from TechWomen, Rotterdam. She had invited the Old Boys Network (www.obn.org), the first international cyberfeminist organisation, to workout the concept for the conference, and provided local support.

The "Next Cyberfeminist International" (www.obn.org/nCI) was a follow-up to the "First Cyberfeminist International" which OBN organized in 1997 at the Hybrid Workspace at documenta X, and 23 women from 8 different countries came to publically present and discuss their work related to Cyberfeminism. The date of this conference had been synchronised with next5minutes, the conference for tactical media in Amsterdam (www.n5m.org). n5m started directly after our conference and had also a cyberfeminist section in the program, where OBN was invited to present its work.

As for the First Cyberfeminist International, we were seeking women who were interested in contextualizing themselves in the framework of Cyberfeminism at the Rotterdam conference. But this time we suggested certain topics which we felt were crucial to the discussion of Cyberfeminism. The first day began with short introductions and overviews referring to the history and current positions of Cyberfeminism, and the second day was devoted to the subject of "Women Hackers". Both hacking itself and the paucity of women hackers were the starting points for the discussion. We focussed on hacking as a way of life, an attitude, a metaphor about subverting the assets of the information age, and hacking, a myth generated and performed by men for men. We looked at the actual practice of hacking and discussed how cyberfeminists can test and appropriate this practice for their purposes.

The raising of questions of gender in the information age was addressed on the third day with the title "Split Bodies and Fluid Gender: the Cutting Edge of Information Technology--(between scientific and artistic visions). It was about different theoretical and artistic approaches towards the hype, the threat and the potential of 'information technology' cutting into the roots of cultural tradition. The last day, under the title "Feminist Activism/ Resistance/Intervention/ Globa-lism" started by assessing the changed political and cultural conditions in the information age that stand under the banner of pancapitalism. This section sought to formulate and present engaged, critical and utopian theories, practices and possibilities of action in today's world in which the ascendancy of the virtual seems to invalidate "real" interventions and positions. Due to the short time we were able to devote to the topic, this session was more of a starting point for a discussion which has to be reformulated and intensified, rather than the summing up of the conference proceedings in order to formulate concrete strategies.

Just as at the conference, this reader intends to continue collecting a range of different approaches and methods, rather than seeking a homogeneous cyberfeminist stand with respect to these different fields. We know that in our continuing work we have to relate all these topics and methods to the question of Cyberfeminism, and to develop, with regard to our dissent, common issues and strategies. We would like to discuss the differences between, for example, a genderspecific techno-criticism and a cyberfeminist point of view. What are the special advantages and qualities of being a cyberfeminist, or of qualifying something as cyberfeminist? What is a useful politics of representation if the term "representation" becomes problematic? Who are the people who can

identify with Cyberfeminism and how has this term to be reformulated to embrace human beings within broad and various contexts?

At this point we would like to emphasize the term "New Cyberfeminism", since the subtitle of the conference was "Strategies for a New Cyberfeminism" or "Discourses of the New Cyberfeminism". The proposal for a "new" Cyberfeminism sprang from our need to distinguish ourselves from the first generation of cyberfeminists who coined the term in a way we found too narrow. This is why we made and are still making vigorous efforts to free Cyberfeminism from its old attributes in order to make it a useful and operational tool for all kinds of new utopias.

To this participant the conference clearly showed that in addition to merely bringing together positions, subjects and agents who call themselves cyberfeminists or say that they practice Cyberfeminism, it is imperative that we are precise in our formulation of common dissent. Cyberfeminism is (to a greater degree than the term feminism was or its offspring postfeminism or gender studies are) a speculation, a myth, a utopian idea,and a strategic construction. It is above all a discourse of feminist stubborness in the posthuman age of global information and bio technologies. What we have in common first of all is a belief in the viability of this faith, which we attempt to anchor in the reality and in our daily lifes. And since Cyberfeminism, like feminism, is a politically-motivated, anti-phallogocentric idea, we need to formulate and marshal our understanding of politics in a more concrete way than we have done until now. We believe that Cyberfeminism, incorporating as it does the notion of diversity, is very much an issue of our time, a time of post-humanism and ongoing virtualisation in which words like subjectivity, identity, sex/gender, representation, agency, policy and discourse are undergoing redefinition. These terms are not obsolete, having served a useful purpose in embodied lives like our own; but they need to be re-constructed and acted upon again and again. Unlike approaches which assume that female resistance is already happening unconsciously in unknown, uncontrollable spaces, we insist on the idea of aware responsibility, reflection and of engaged motivation and intention. But we know very well, that real effects may be far beyond subjective intention or even issues of traditional subjectivity. This is what we will work on in future and why we are building a network for and of similar and differing cyberfeminist approaches: our aim is to create pleasurable ways and means of resistance, and we intend to do it with the collaboration of our sisters ;-)

Yvonne Volkart and Cornelia Sollfrank, OBN, August 1999

Who is OBN?

How do they do--what exactly?

The Old Boys Network was founded in Berlin in spring 1997. OBN consists of a core-group of currently 8 women, who take responsibility for administative and organisational tasks, and a worldwide network of associated members. The core-group members are Susanne Ackers, Faith Wilding, Julianne Pierce, Claudia Reiche, Helene von Oldenburg, Verena Kuni, Yvonne Volkart and Cornelia Sollfrank.

OBN is dedicated to appropriating, creating and disseminating Cyberfeminism. Our concern is to build real and virtual spaces in which cyberfeminists can research, experiment, communicate and act. These activities aim to provide a contextualized presence for different and interdisciplinary approaches to Cyberfeminism.

One of the basic rules of OBN is that every member is required to call herself a woman (without consideration of the biological base of this intelligent life-form). With regard to the content--the elaborations of 'Cyber-feminisms'--our aim is to pursue the politics of dissent. If you wish to find out more about the regulating structure of OBN and the special operational conditions which make this transitory group work the way it does, please

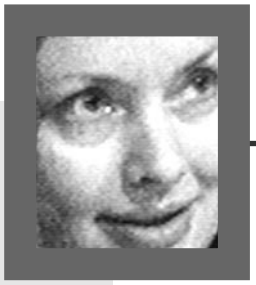
visit our site at:
www.obn.org/we/index.html

Thanks to:
The "Next Cyberfeminist International" was an autonomous event which was made possible through the support of TechWomen, Rotterdam, Goethe Institut, Rotterdam, Senat der Freien und Hansestadt Hamburg/ Senatsamt für die Gleichstellung und Frauenreferat der Kulturbehörde, Mama Cash, Pro Helvetia, DE UNIE, Rotterdam, and next5minutes, Amsterdam. Special thanks to Ingrid Hoofd for the coordination with n5m, Gudrun Teich for editing and presenting the video documentation of the First Cyberfeminist International in Rotterdam; and very special thanks to
Tina Horne and David Hudson for editing.

next

nat muller

rachel baker



ieva auzina

susanne ackers

cyber

stephanie wehner



maria fernandez

rasa smite


barbara thoens

alla mitrofanova

mare tralla

feminist international

caroline bassett

cornelia sollfrank

corrine petrus

marieke van zanten

Foto: Veit Mette

rena tangens

yvonne volkart

ursula biemann

march 8-11, 1999

pam skelton

claudia reiche

maren hartmann

verena kuni

rotterdam

marina grzinic

helene von oldenburg

irina aristarkhova

faith wilding

Strategies for a New Cyberfeminism
Discourses *of* *the* *New Cyberfeminism*

In recent years international telecommunications technologies have been causing profound changes (globally) in social and political cultures. **And elsewhere*: *in the human--immense growing prosthetic body, intellectual restructuring to fluid patterns, emotions as reflex tracts of the Data-Superhighways* *In art--transgressive matter, conceptual pilings, haunting specters of intelligent technologies* *In science--simulations, remote control systems, personal scientific agents*

Increasinly, globalized society is being territorialized by western aesthetic and market strategies and cultural formations. **as society is territorializing market strategies as cultural formative.** Many "alternative" subversive strategies **competing for the rare nishes in the system* have been harnessed **quoted* by pancapitalism to capture **invent* new markets and consumers everywhere. **to teach about resistance.** This situation acts as a rallying cry **as the state-of-the-art* for a **of the* _New_ cyberfeminism_ for the 21st century. **embracing every brilliant, sad, effective, lusty, intellectual, desperate, wild, cool, sentimental, illogical, free, crisped and ugly premature feminsm ever existing under new technological conditions.**

A diversity of feminist critical, *deconstructive* *misfitting* aesthetic, and cultural practices *ways of thinking* have become more and more relevant as they decode, critique, and subvert *imitate and falsificate* the languages and practices of global capitalist culture.

What are the specific possibilities offered by the new technologies for a networked feminism? What are the specific possibilities and conditions for agency and female subjectivity in a wired and globalised world? Some energetic new cyberfeminists are already busy creating a liberatory and empowering use of communications technologies and attempting incursions into the masculinist **beloved* **mind-boggling* culture **shit* of the Internet. It is not to the utopian magic of a liberating technology **another technological restructuring of ourselves* we can look for the hard cultural work which needs to be done. **which is the only real thrill left to do*. Rather, women's *the new cyberfeminists* tactical and imaginative uses of the Internet are already bringing about new social **neuronal* formations and associations among very different constituencies. **The new Meta-Medium, the networked Computer, is being tested in different ways (THE NEW CYBERFEMINISN IS A TEST) as it is testing our abilities to change our pattern-recognition, to keep up with a lingering subversion of tradition. (THE NEW CYBERFEMINISM WAS FASTER)*

To some extent the "alternative" feminist institutions and services which sprang up everywhere in the 70s have been reproduced on the Internet: Feminist data banks and electronic news services provide information on war crimes against women, collective economic actions, international solidarity actions, and critical health news. There are on-line feminist directories for job news, self-help group organizing, starting your own business, managing your money, socializing, technological education, and the like. **Do "alternative"-cyberfeminists analyze the imitations of the feminist institutions of the 70s on the Internet? Do "baby"-cyberfeminists hack the tamagotchis homepage as smoothly as the Pentagon's archives? Do "european intellectual" Cyberfeminists get their kicks on clicking their mouses quickly (and writing a Phd about it)? Click here. Click now. Enter your creditcard-number. Identify yourself. STOP. (ELSEWHERE)*

As Avital Ronell, Donna Haraway, and others have pointed out, it behooves feminists to become technologically skilled and knowledgeable lest the new technologies of global communication and domination once again perpetuate and strengthen the same old male culture and power structures. In this regard, feminists who have access to technological privileges need to be particularly alert to cultural, racial, and economic differences in the way women work, live, and use technology globally-differences which are rapidly shifting and increasing with the onrush of technological "advancement." Some female hackers and computer engineers, as well as artists and tinkerers, are acquiring enough technological knowledge which if used strategically could seriously disrupt and disturb the still overwhelmingly male culture of the Internet.

**It behooves THE NEW CYBERFEMINISTS to ask new questions on the 19th century western gender dichotomy. How do they call themselves feminists? Even women? Is this still a Fin-de-Millenium decadence? What could this mean while constantly undergoing sexual and gender orders in theoretical and practical ways, as is the daily cyberfeminist's virtual bread? Bits of XX..., byte, the X! You should find out about that (if you call yourself a CyberXX too!)*

Such disruptions presuppose a close entwinement of political and tactical thinking and technological know how-something which is quite possible given current international feminist resources. One can imagine other interventions: Feminist leaders *'*And when my brain talks to me, he says: Take me out to the Ballgame. Take me out to the Park. Take me to the Movies. Cause I love*

*to sit in the dark. Take me to your leader. And I say: Do you mean George? And he says: I just want to meet him. And I say: Come on I Mean I Don't even Know George! And he says: Babydoll! Ooo oo oo Babydoll, Ooo He Says: Babydoll! I Love It When You come when I Call' Laurie Anderson: Baby doll** and policy makers could communicate with activists working in diverse locations with working-class and poor women (who are often not connected to on-line resources)

Note for the next meeting: Question: Isn't it a effective 'male' capitalist's work to connect even more third-world-women to the more or less qualified and jobs (from Data- Aquisition to Software-Engineering) at the computer-terminals in the globally wired systems? And shouldn't western capitalist feminists - promoting the liberating and educational use of Online-Computers--make their living, being paid by the computer industry? on labor, employment, and displacement issues. Feminist health, environmental, and medical workers could directly monitor the effects on different groups of women of the new biomedical and genetic technologies, etc. etc.

Instead of being subjected to the irrelevancies of Jennicam **Jennicam: the realisation (and thus: suspension) of paranoia? Historical reference to the case of Daniel Paul Schrebers: 'Denkwürdigkeiten eines Nervenkranken'. Jennicam: The old subject's CYBERFEMINISM.** perhaps we could figure out ways to become more familiar with day to day living conditions and the new experiences of women and girls in the global integrated circuit.When the first Cyberfeminist International met at the Hybrid Workspace in Kassel, we daily recorded our discussions on video, and also emailed a daily report to the international women-only Faces list. Perhaps this was the beginning of modeling a new feminist consciousness raising for the 21st century-a networked, multi located, polyvocal **voice 1* **voice 2* **Vocoder 2* **Letters 1b* **Signifiers 0 and 1* **Information: as tunnel* **Information: as skin* **Information: as gender* conversation, embodied and gathered locally and distributed globally by electronic means.

"Strategies of the New Cyberfeminism" hopes to address many of the issues introduced above. We invite intense conversations, controversies, speculations, papers, projects, presentations in many forms. We invite paradoxical approaches and diverse interpretations of cyberfeminist theory and practice. Our hope is to expand our connections to a wider circle of women, and to include an even greater mixture of cyberfeminists than participated in the First Cyberfeminist International. Following is a preliminary plan and structure for the Conference.

1. [What?] Next Cyberfeminist International.
Title: Strategies of A New Cyberfeminism.
2. [Who?] Cyberfeminist International. Hosted by TechWomen of Rotterdam, orgnanized by obn (Hamburg), and attended by an interdisciplinary,international group of women artists, writers, scholars, media critics, scientists and sociologists.
3. [When?] Dates: March 8-11, 1999, Rotterdam
March 12, 1999: Cyberfeminist Presentation at Next Five Minutes in Amsterdam.
Participation at the conference will be free, but most participants will need to raise their own travel funds as there will be very little funding to assist in accomodations and travel.
4. [Where?] Place: Rotterdam, DE UNIE
5.[How?] Organizing group: Corrine Petrus (TechWomen, Rotterdam), Ingrid Hoofd (Leyden, liaison with n5m) Cornelia Sollfrank (obn, Hamburg), Helene von Oldenburg (obn,Rastede/Hamburg), Claudia Reiche (obn, Hamburg), Faith Wilding (obn,Pittsburgh) Yvonne Volkart (obn, Zurich/Wien), Julianne Pierce (obn, Sydney).
6. [How?] Format: There will be a mixture of public presentations and private discussions. Initially, we are planning to have public presentations (in the afternoons and possibly one evening) at which up to 4 different presentations consisting of lectures, panels, short papers, performances,etc. will take place. Altogether we estimate that there will be approximately 20 different presentations in the public program.
7. [What?] Content: Presentations will be planned around the following main points of emphasis. More specific concepts of each topic will be posted soon:
Introduction: Myths, utopias, histories of CyberfeminismS. An introduction to the topologies and territories. What happened at Kassel? What are the New CyberfeminismS? The embedding of feminist technical criticism, with women and gender studies (All).

A. 'Split bodies and fluid gender: the cutting edge of information technology--(between scientific and artistic visions)'
B. Hacking as method and metaphor
C. Feminist Activism/Resistance/Intervention/ Globalism

Closing Summation and discussion.
Private discussions among participants will also center on these topics. And the discussions will also provide content for the planned presentation at the Next Five Minutes Festival in Amsterdam.
8. Documentation: We also plan to issue a publication on the model of the Cyberfeminist Reader.
9. Funding: A budget has been developed and funds are being solicited by Corrine Petrus (TechWomen) from several local Rotterdam foundations, and from other Dutch organizations. Additionally, Cornelia Sollfrank is looking into funding for a publication of the proceedings from Germany. It is expected that participants will try to raise travel and accomodation funds for themselves from their local arts and culture funders.

Call for Proposals/Abstracts: **By February 1, 1999**

The CI2 planning group is now calling for proposals for presentations of many different kinds at the Conference. We are interested in the widest possible interpretations of cyberfeminismS theories, strategies, art-works, papers, performances, and actions... Please prepare a brief proposal describing your presentation's content and form, and a one-paragraph abstract or statement; include a two-line biography. Please designate which main topic your presentation will fit best.

Email to: <boys@obn.org>

Alla Mitrofanova

How to become a Cyberfeminist

FAQ about Cyberfeminism

How does one become a cyberfeminist?
It's very simple. First of all you should set up a careful dialogue with your body. The body desires a great deal, being a receptacle of various existential opportunities. The body itself is invisible, it is immanent. We recognize it gradually by its development – the way it has presented itself is the way it is going to be. As a container of opportunities it is rooted in sexuality. In a different place, on the other hand, – not in the body but in the culture (bodily culture and the culture of the epoch and the society) there lies an inventory of one's possible stereotypes – whether images or bodily dynamics (informations). Information is not a structure, not identity, not a gender - it is a catalogue of possible expressions. Our goal is to keep the distance between the body as opportunity and the body as representation. Only then we have freedom to choose either a subject matter or a symbol or an image for self-identification to meet the conditions as well as requirements of the moment. The operating with catalogue (information database) is disclosed and open for any user who is willing to pay for his choice with his pocket-stored life apotheosis (Eros, vital energy).

Why do they call it cyberfeminism?
Cyberfeminism has two legs: cybertheory/cyberculture and feminism. Cyberfeminism opposses the handed-down relationships with cybertheory and feminism. It questions the euphoria of nomadic subject, genderic freedom and bodilessness, information as operative database. But we cannot see a more stable genderic or any other identifying structure or framework, lopsidedness and fallocentricity of which would produce an impetus for creative deconstruction in feminism. Although it is just the experience of feminism in philosophy and art that like no other makes one act against the rules of discourse and convention in the settings of anti-value, in dangerous vicinity to the taboo and the body. This is why we consider it as an irreplaceable strategical resourse. Cyberfeminism is the fertilized ground for producing sayings, subjectivenesses, and praxis. It deals with multiple identifications (where multiplicity is destructured and excessive in terms of gender, powerful etc. We don't occupy our time with criticising male dominant economy, restorating truth and justice, we look for multiplicities in which there dissolve claims of domination and binnary oppositions. With self-distruction of the monological or metanarrative culture there have been disclosed scores of territories of existential silence first of all connected with female bodilessness and female subjectivity, maternity role in arranging the unconscious and power. Wierdly, cyberfeminism deals with preformed bodies, recreating concepts of feminine and subjective in multiple, analyzing internet and other current micropolitics productions.

What is cyberfeminism?
Cyberfeminism is not one. There is a multitude of its possible variations, doom as well as optimistic ones. St.Petersburg's current, of which we are the only occupants for the time being, shares optimistic grounds only. Cyberculture is a pool of differences which are segmented and irrelevant to one another, whereas all ways of freedom from any compulsion are easily reached (they are accessible outside of cyberculture either), but it should be paid for own cost. Therefore a special inquiry for creative working with this freedom concentrates here in order to complement the inventory with possible scenarios, symbols (unconsciousness is not a stucture, but database), to go around with one's processor upon one's desires, to enlarge the body on account of machines, to lose no sexuality and productivity of one's body, in order to make subjectivity repressive neither for oneself nor for others. If working with structures or cultural database seems not produce a big problem, the "desire/will" and "own cost" became a philosophical task for our group, gave us nick schizo-existentialists. Desire/will has an operative distance from being political (produced in symbiosis with power - bee/flower system) to being metaphisical (done as immanent source of body). Cost could be a product of semiotic, social or any other economy, or could be immanent energy of sexual body. When desire/will and cost connect the same instance -immanent body, metaphisic starts with all consequences %-((.

Who are they, cyberfeminists?
Mostly, they are women, but not necessarily (children, men, animals are included). Those who livetheir cyberlives bearing in mind that technology is an extension of the body. It serves for benefits of the experience and the pleasure of life; it provokes us to enter the creative nexus in subjectivity and body technologies.

When does it happen?
Cyberfeminism is a cultutal product of 1990's. It is mostly developed as a theory and as art practices, but it also represents as social life and as network. St. Petersburg Cyber-Femin-Club functions since 1994. It was the first place in Russia and still be one in local community to exhibit and research electronic art activity.

Thanks the first cyberfeminist international in Kassel in 1997 we have got a network with regular meetings in Graz, St.Petersburg, Rotterdam...

Caroline Bassett

A Manifesto against Manifestos?

„To Put on the Seductive and Dangerous Cybernetic Space Like a Garment, is to Put on the Female."
Allucquere Rosanne Stone, 1991; 90

„The Wearing of this Garment Does Not Enable You to Fly!"
Warning on a child's SuperMan costume…

Origins and Orphans

In the 1980s, Donna Haraway, a socialist feminist, wrote a Cyborg Manifesto. A fairy-story about the future; a world beyond salvation myths, a future beyond gender. This impossible world, said Haraway, was nonetheless to be contested for. Haraway's cyborg was famously unfaithful to her origins, breaking with her roots, in US military/technological machine. She did however, clearly produce offspring (cyberfeminism being one of her children).

Sadie Plant, sometime later, wrote a book called Zeroes and Ones, another manifesto, but this time, one in which the hero(ine), Woman, does not, in the end, break with the past (or not, at least, the distant past). What Plant created was not so much a fairy-story about a possible future, but a manifesto „all about origins…"

Influenced by accounts of evolutionary biology, Plant in Zeroes and Ones creates a new myth of Eve, this time an Eve born of a crisis of the organic soup which began the world, which destroys the web-like marine Eden, there at the beginning; constituted and containing slippery „strings of inseparable sisters". Evolution, history; and Man as the Subject, of that history; all that followed, in other words, was a result of this mistake, this crisis. An error.

The re-emergence of this Eve, the re-ascension of the feminine principle through new information technologies, is what lies at the heart of Plant's feminist philosophy, and at the heart, I think, of her politics. It is also at the heart of those aspects of her cyberfeminism which I find problematic.

Trajectories

This paper explores Plant's work, as a starting point through which to examine cyberfeminism, and to express my concerns that it often fails to connect not only with the 'real world' (with real technologies, and real positions many women find themselves in). In addition, it also fails to articulate demands for, to re-write the possibilities for, a genuinely different future. This despite the evidence that these demands, these visions, are (still) necessary (still despite information technology) and need to be thought through. To do so would be to develop a different sense of what cyberfeminism(s) is/are, or could be.

Sadie Plant's work is an appropriate focus because it is a forceful articulation of an influential current of cyberfeminist thought. In addition, Plant herself, and her writings, have tended to be identified with the term itself--in the UK at least.

This critique is pursued through a suggestion that what is required is the restitution of a Utopian consciousness in cyberfeminism, of a new sense of the 'what could be possible', as opposed to the celebratory 'what is', if you like, which is currently evident in many cyberfeminist takes on technology. If this does not sound like a formula which provides for an engaged politics (it might sound like a manifesto against particular manifestos…), I will try to suggest how it does at least provide the space for the development of an active/activist feminism; for a kind of politics.

Perhaps this call is counter-intuitive. There are currently many writings assessing cyberculture which begin by recognizing that the technology is Utopia/is Dystopia debates have been futile in many ways. We have now, it is argued, moved beyond all this; there is a sense, in particular, that the celebrations are over, and the social science has begun. We are now in the territory of Cybersociety 2.0 (Jones, 1998). We are in the realm of AOL and GeoCities, and Monica sites. It has become apparent, (it always was apparent, actually) that much of the gender-twisting on the net, was defensive, or even normative, that you slipped out of one stereotype into another. It marked you, in de Lauretis terms, even when the performance was your own. In these and other ways, as Howard Rheingold, writing about early cyberspace feared, they metered us and sold us back to us.

All the more need, I think, in this context, for the restitution of Utopia of a particular kind; of the kind that says simply this, the present needs changing, the future could be different. This is not a position that triumphalist brands of cyberfeminism can consistently hold.

Going beyond Plant, I will try to suggest that this might not be a position that any brand of cyberfeminism based around essentialism can easily hold. This is why, in the final section of this paper, I briefly refer to the notion that instead of thinking technology and gender as essentially connected (or essentially dis-connected) we might think of both as performatively produced; linked by discourses which give them meaning, discourses which might be rewritten, or even, queered.

Re-Assembled Woman

What is cyberfeminism? For Plant, cyberfeminism is an absolutely post-human insurrection--the revolt of an emergent system which includes women and computers against the

world-view and material reality of a patriarchy which still seeks to subdue them. This is an alliance of 'the goods' against their masters. This revolt is on a grand scale. Plant is discussing the overthrow 'of two thousand years of patriarchal control', In fact--sometimes--this revolt is already happening. „Tomorrow came", she says." We are already downloaded."

The question then, is how did this change come about? Here cutting across Plant's rhetoric of transformation, is a fundamental ambiguity, and a (surprising) admission of uncertainty. First the ambiguity: Plant says it is cyberfeminism--and/or the complex systems and virtual worlds upon which it is based--which have the capacity to upturn patriarchy. Second, the uncertainty. Plant says she is talking about an „irresponsible feminism". Which might not be a 'feminism at all.'

Does cyberfeminism then, amount to a politics, or a technology? Is Plant talking about the possibility of a feminist response to the digital world? Or, is she documenting/predicting/ investigating a technologically-determined alteration in the condition of woman? An alteration women should embrace (after all, they are about to inherit the earth), but which they can do very little about?

To try and unpack these questions, it might be useful to look at where this kind of cyberfeminism finds it theoretical roots. Cyberfeminism--clearly--begins at the point when humanism is abandoned. Plant's analysis begins with the French philospher Luce Irigaray's contention that, for women a sense of identity, is impossible to achieve since women cannot escape the 'specular economy' of the male. This is an economy in which, through the controlling phallus and eye (the member and the gaze) woman is always understood as 'deficient'. Woman is always 'the sex which is not one', the sex which always lacks the equipment to have one. (Women is always Zero, not One.)

Given this analysis, those feminisms which demand for woman, her place as the subject of history, her share of human domination over nature, have simply got the wrong goals. Pursuing the 'masculine dream of „self-control, self-identification, self-knowledge, and self-determination" as Plant puts it, will always be futile, since 'any theory of the subject will always have been appropriated by the masculine' (Irigaray). For Irigaray, the only possible politics for the sex which is not one, and can never be one, is a politics which takes as its starting point the destruction of 'the subject'.

The question, of course, is how this work of destruction might be carried out. Irigaray's answers to the questions she poses have always been tentative--for her the project is fraught with difficulty--Plant is not so diffident. She has an answer. And it is self-organizing technologies; the femaleness of the new species. Which is not a species but an machinic emergence. And which is dangerous to men.

Plant's contention is that self-organizing technology, „a dispersed and distributed emergence" composed of links between women and computers can perform Irigaray's work of destruction, because they produce the space 'apart' for woman to assemble herself--with the assistance of machines. Cut loose from patriarchy, woman is 'turned on with the machines'. The way out of „the prison house of language" (Irigaray's prison) turns out to be through technology; the zeroes and ones of (binary) code!

For Plant then, new combinations of women and machines, are in themselves, a kind of 'politics', but also simply mark a changed state of affairs. There is, in other words, a technological fix (to use Carol Stabile's term) for feminism. This fix might be highly desirable, but I do not think a convincing argument for it is made in Plant's work. Below I want to briefly point to two sets of problems. First I'll look at what I'd call the essential engendering of technology in Plant's work. Second I'll consider the question of how technology 'itself' is deployed.

The Nature of Technology

I have suggested that Plant's analysis turns on a particular understanding of women and phallogocentrism. It also however turns on a particular reading of the 'nature' of technology. It is necessary to ask then, how machines, often understood to be 'coded masculine', get to 'be' feminine in this account.

Plant accounts for this shift in Zeroes and Ones and elsewhere in her writing, in two rather different ways. The first is this one. New technology is 'orphan' technology because it is emergent technology. „tools mutate into complex machines which think and act for themselves". These machines, being emergent do not have origins to be faithful to. Extending this, we might say, They twist beyond (Irigaray's) specular economy--and the twist they take, for cyberfeminism, is towards 'the female'.

Plant's own writing however, cuts across this account, since it is also her contention that there always have been (often invisible) interconnections between 'fe-males' and technologies of information. This inter-connection is symbolized by weaving which assumes huge importance in Plant's writing. Not only is it a central metaphor, it is more than that; one could read Zeroes and Ones as a (cyberfeminist) genealogy of technology, an excavation based on a notion of technology as weaving. As Plant tells it in Zeroes and Ones; microbacterial mats wove the world, and still weave their way into women's egg, and not into male sperm (there is/might be a Mitochondrial Eve). These 'weavers' become Freud's 'weaving women'--weaving women who make connections with machines, for instance in the industrial revolution, when male weaving is taken over by women. Slightly later, the inter-twined history of the Jaquard Loom, which used punch cards, and later electronic software coding, comes to stand 'as proof' of the importation of 'the feminine' into the supposedly sterile spaces of the machines. Which still leaves unanswered the ques-tion of what makes weaving, now 'secreted' within the digital, a female techology? Apart from the fact Freud certified it so?

Weaving, for Plant, is about technologies and practices which cannot be explained in terms of domination and control. Weaving--women working with information technologies--can then also be understood as in some sense a

subterranean weaving against; an inevitable conspiracy 'in process' not in consciousness, if you like.

To bring the accounts of technology and the theorization of the female together. It can be suggested that in Plant's analysis the category of the female 'itself' is never up for grabs –although the bodywork may change (and extend). Woman remains essential in her essential (and originary) fluidity. It is clear also that this has implications for ways in which technology can be thought. As a fixed category, 'the female' sits uneasily as a descriptor of 'new' technologies, which are supposed to be (simultaneously argued to be) disturbing of 'the subject' and of human relations with nature. To simply switch the gender of machines belies--paradoxically--their complexity (their heterogeneous cultural inscription, their fluidity).

The fault-line between gender essentialism and technologically mediated transformation clear here, is a fault-line that runs through this kind of cyberfeminism. Plant is essentially essentialist. Which is why, despite the transformatory rhetoric, I think it is fair to suggest that cyberfeminism is not ambitious enough in defining a vision--a vision perhaps of a less 'mechanically' gendered future. Plant is saying that the nature of women and the nature of the machines converge. Perhaps we need to be asking 'which nature?', 'which 'women?' and 'whose machines?', and 'which technologies?', and 'for whose interest?'

Tomorrow, yesterday

The second important way in which Plant's analysis is problematic is because it refuses history. Cyberfeminism is often incapable of an engaged politics because, although it talks of process, it refuses to consider or assess technology or technological practices, as practices embedded in particular spaces (geographies) and in particular times. Instead Plant's cyberfeminism neglects/ collapses present, past and future. In her analysis, we are catapulted into the „coming future", through the force of a mythical past (for which incidentally we are invited to be nostalgic) partly by way of abstracted out examples of technologies or technological possibilities. If we assent to this trajectory it is partly because the future Plant projects (based on information science) and the 'past' she writes for us (based on new biology) is also 'authorized' by these discourses, which she uses rhetorically, but also brings to bear as 'facts' which validate her discourse (a sleight of hand which is might be regarded as inconsis-tent with an approach which denies scientific rationality).

One consequence of the way in which this rhetoric is constructed is that disagreement becomes difficult. To disagree is to be accused of failing to understand the implications of new science, as well as to failing to fall in with the slippery sisterhood (woman). In this way I find Plant's cyberfeminism, strangely tyrannizing (strangely because I think it is intended to be open).

Another consequence, I want to suggest, is that cyberfeminism, describing an actually existing world in which women are back in the ascendant, or back on the road to ascendancy, does not produce a space for a thinking about different possible future, or for finding a way to get there. Again then, in this different sense, cyberfeminism can be described as being peculiarly unambitious. Something in it is missing despite the scale of its claims.

'Somewhere in the Nowhere'--Utopias

In pursuit of this missing something. I turn briefly to the question of Utopia--to think about more about its location, and its purpose, both of which provide suggestive means by which to think through cyberfeminism.

Utopia is traditionally a non-place (Hence the name, which is also associated with happiness; Utopia is the happy non place), its actual location as non-place, however, has shifted over the years--and in response to real geographies. Utopia was a term used first by Thomas More, the name he gave to an island in the South Seas, a non-place with a definite location, much like the later Erewhon (nowhere) was somewhere (somewhere, over the mountains). Later though, as the world shrank, and there were no more empty spaces left, Utopia already the non-space, „left space and entered time" Dagmar Reichert lays out this trajectory, in Woman as Utopia (Reichert, 1994), an article which links intriguingly to Plant by way of Irigaray. More central to the argument here, however, Reichert asks where Utopia might move to from here, in our own century; and concludes that Utopia is transgressing again; into not space, but hyperspace, not into new times, but into simultaneity. (Reichert, 1994: 94).

Reichert herself links the non-place of Utopia with the non-place, the zero of Irigaray's woman. Women for Reichert becomes/is Utopia, and she ends with an appeal for a woman who does not subject herself to the territorial order, but who is not lost in formless chaos either. More than both subject and object. However, she also warns against the hope that utopia can be located, accommodated, instantiated: „Not even the space of possibility", she says, „is capable of accommodating utopias. There is within every utopia, for example, the inherent contradiction that there is, even at the end of de-sire, still something to live towards." (Reichert, 1994, 93).

Elsewhere (and from a different tradition), a discussion between Frankfurt School theorists Adorno and Bloch „Something's missing", on the contradictions of Utopian 'longing' pre-iterates many of the same themes. But Something's 'missing links in a different way to the concerns of cyberfeminism, in that it considers the very specific sense of lack that emerges when Utopian dreams are 'fulfilled' by new communications and technologies; at the time of writing by things like television, 'the possibility of travelling to other planets', and the possibilities of 'moving faster than sound'. As Adorno said of these inventions:

„[I]nsofar as these dreams have been realized, they all operate as though the best thing about them had been forgotten--one is not happy abut them. As they have been realized the dreams have assumed a peculiar character of sobriety, of the spirit of positivism, and beyond that, of boredom. One sees oneself almost always deceived; the fulfilment of wishes takes something away from the substance of wishes." Adorno and Bloch make a distinction between the delivery of fragments of Utopia (deliverable dreams) which lose their value on arrival, and Utopia itself. In addition

they claim that the fulfilment of specific Utopian wishes not only disappoint, they also depreciate Utopia itself, and in particular they depreciate the power of Utopia as a whole vision, leading to what Adorno called the 'strange shrinking of Utopian consciousness'. It is thus only if Utopia stands essentially apart, they suggest, if it is essentially impossible to achieve, that it can operate as „a critique of what is present. (p.12)"

'A critique of what is present'

How might this debate, which occurred as mass consumption was shoed in by old new technology, be read into new conditions of new technology and into new debates around feminism?' Here I return briefly to Plant, and suggest that a critique of what is present might be precisely what her cyberfeminism doesn't deliver.

I have attempted to argue by looking at what informs Plant's work that while this kind of cyberfeminism looks extremely radical, as a politics to live by it comes closer to espousing a kind of triumphant fatalism, than an activism. Part of this argument is that the triumphant rhetoric of some kinds of cyberfeminism has hidden, its often tenuous connections with what is really going on in digital spaces, in the heres and in the nows in which we live our lives, and that it has done that precisely by confusing possible future technologies, with what is happening today. „Tomorrow Came", said Plant, „We are Already Downloaded." There is a future and a past in that statement, apparently, but both also live in an instant present. This is why Zeros and Ones is a creation story, relived endlessly, not a manifesto for the future at all. It is actually fired by a kind of radical nostalgia for a past which is retroactively created.

The more you look at it, the more it is clear, that this is a story about how the future could not be different. In Zeroes and Ones, a certain kind of Utopia always was. We just couldn't see it. New Technology made this 'what always was' (actually the Utopia of Women--to slip back to Reichert), this non-place of woman, visible. Which might be something of a contradiction in terms, if the terms are those of Irigaray.

Technology and Performance

Here let me briefly gesture towards a different approach. I have tried to demonstrate above that Plant's cyberfeminism reinscribes gender and sex in essential ways. In ways which strip out from digital technology those possibilities of destabilization (even cyborgization) which Plant herself (and many others) have celebrated. But this possibility of destablization--surely--remains the point? Bodies are being reconfigured through technology in ways that disturb assumptions about sex and gender. Humans do operate differently in remote communication or in virtual spaces. Information networks, in all these ways, challenges essentialism.

One way in which it is possible to think through the question of technology and the question of women rather differently is through Judith Butler's notion of performativity. For Butler bodies are morphologized through performance; not through the free performance of an individual but through the performative discourses of society. These discourses conform bodies. In other words sexed bodies and genders are achieved and re-achieved iteratively; in a performance which repeats, but which may not repeat perfectly. There is space in this for a politics of re-signification; for writing against the grain. It is, of course, possible to think about technology 'itself' as performatively produced and reproduced; itself open to re-inscription; in other words, this analysis has implications for thinking technology, as well as for thinking women.

Conclusions

This paper began life as a Manifesto against Manifestos. It ends as a call for the restitution of the idea of Utopia in cyberfeminism. This is a restitution which might be achieved by means of re-thinking the location of Utopia. A feminist Utopia does not inhere in actually existing (virtual) spaces, because they are insubstantial, or instantaneous, because they can conceal, or disguise, or transform. Nor is it to be found in particular configurations of particular technologies; technologies which are somehow or other 'female'.

Utopia, instead, needs to be relocated to the no-space, no-time of the possible, the wished for, the desired, envisioned, and imagined. This shift would not place an engaged politics beyond the horizon. On the contrary, it would allow the reframing of demands for the now, not in the context of a revolution rather tawdrily achieved, and in part, in the sphere of technology alone, but in the context of far wider wished for futures, to be grasped by human actions in new contexts, not offered by machines. Against technology as destiny, a politics which is not one, could be set the notion of Utopia as possible worlds. These Possible Worlds, which engage with technologies, might spark new kinds of thinking about what could be beyond gender--and beyond gender inequality. They are possible worlds which could be used to highlight, and to critique the real conditions of women online; in the real here, and in the real (and virtual) now.

REFERENCES:
Butler, Judith (1993), Bodies that Matter, Routledge, London
Bloch, Ernst and Adorno Theodor (199), Something's Missing: A discussion between Ernst Bloch and Theodor Adorno on the Contradictions of Utopian Longing,
De Lauretis, Theresa (1987), Technologies of Gender, Essays on Theory, Film and Fiction, Indiana UP, Blomington
Freud, Sigmund (1985), New Introductory Lectures in Psychoanalysis, Penguin, Harmondsworth, (p.167)
Haraway, Donna (1991), 'A Cyborg Manifesto: Science, Technology and Socialist Feminism in the Late Twentieth Century' in Simians Cyborgs, and Women, the Reinvention of Nature, Routledge, London
Irigaray, Luce (1985), This sex that is not One, Cornell U.P, Ithaca, New York
More, Thomas (1975), Utopia, Norton, London
Jones, Steven G. (1998), Cybersociety 2.0, Revisiting Computer Mediated Communication, Sage, London
Plant, Sadie (1998), Zeros + Ones, 4th Estate, London
Plant, Sadie (1996), 'On the Matrix: Cyberfeminist Simulations' in (ed) RobShields Cultures of Internet, Sage, London
Rheingold, Howard (1994), The Virtual Community: Finding Connection in a Computerized World, Secker and Warburg, London
Reichert, Dagmar (1994), 'Woman as Utopia: Against Relations of Representation', in Gender, Place and Culture, Vol 1. No. 1 pp.90-99
Stone, Rosanne Allucquere (1991), The War of Desire and Technology, MIT, London
Stabile, Carol (1994), Feminism and the Technological Fix, Manchester UP, Manchester

Irina Aristarkhova

Hosting the other:

Cyberfeminist Strategies for net-communities

"There is doubtless this irrepressible desire for a 'community' to form but also for it to know its limits - and for its limits to be its opening." J. Derrida

"All these people of various races feel themselves drawn to us, and are ours, by blood, by tradition, and by ideas."
Mission Civilisatrice of Russia

Net Communities as Policed Communities

As Allucquère Rosanne Stone (1996) shows, issues of control and user-surveillance had been crucial even in the earliest stages of formation of net communities. Greenstone and James from California started a small business called the "CommuniTree Group", based on an idea of a conference tree, their main goal being the promotion of an idea for an electronic community. They used the, so-called, *Forth* programming language which was so opaque in comparison with other existing languages that it is practically incomprehensible to those outside its community. Those involved employed this language to associate themselves with a chosen community and its habitus.

Stone writes that "with each version of the BBS system, the CommuniTree Group supplied a massive, detailed instruction manual—which was nothing less than a set of directions for constructing a new kind of virtual community" (Stone, 1996:109). From the beginning fantasy was a constitutive part to this 'community' imagery: "They saw the terminal as a window into a social space... It is clear that virtual communication required a propensity toward play or fantasy on the part of the participants, either as a precondition of the interaction or as a concomitant" (ibid, 110-11). She also compares virtual communication with the "lucid dreaming in an awake state"—a participatory social practice in which the actions of the reader have consequences in the world of the dream or of the book" (ibid, 121). It is noteworthy that such notions of collective imagination and fantasy used to describe net communities have also been employed by others to depict the 'nation' and 'community'[1].Therefore, net communities just like other social communities involve elaborate schemes to construct and regulate the collective imaginary of its constituents.

In the case of CommuniTree as soon as the net community started growing the programme was jammed with obscene and scatological messages. This jamming came as a result of a pre-installed code that exiled such messages into the hard disk, and given the exclusive and opaque qualities of the *Forth* language, the safe and prompt removal of these improprieties was made practically impossible. The life of the Tree came to an end. The main lesson that those men learned from it was a drive to incorporate into programmes "provisions for monitoring and disconnection of 'troublesome' participants" which would be written in an accessible code so that such policing mechanisms would be available at both server as well as user-level. Such measures "facilitated easy removal of messages that did not further the purposes of the system operators" (ibid, 115).

Thus, it is no surprise that the second generation of on-line conference software for virtual communities was already accompanied with more surveillance and control. We are not just talking of routine "monitoring of all networks" as is done by the National Security Agency of the US Government, but of "local surveillance" instituted by individual system operators." One early example of such a community is Fujitsu's *Habitat*, which employed the, so-called, *Oracles* programme that enabled one to observe both the official records of participants and their on-line actions. Thus, historically net communities have been based on protection and surveillance of their limits through the use of policing techniques that include censorship and exile of deviant users (and those whom Stone ironically calls "troublesome participants"). The net communities, were not even in their heydays, spaces for free access, play and negotiation. They were from the very beginning 'governed' (another often-forgotten etymological meaning of the term 'cyber'—*kubernare* as in 'govern') spaces with clear notions of *propriety* (the 'dos' and the 'don'ts') and *property* (rightful ownership). It is for the safeguarding of its own definitions of propriety and property that net communities institutionalise policing mechanisms; and these inevitably mark them out as exclusive communities.

Siegfried Zielinski (1996:279-290) claims that the primary proprietary conventions of net communications are, what he calls, *algorithmic* which are necessarily adverse to an actual heterogeneity of experiences. The 'algorithmic', which forms the operational basis of computers and therefore the net, is a "signifying practice of unambiguity" (ibid, 283) where definite computational procedures are worked out for effective and generalized applicability to a specifiable set of problems. He argues that while certain aspects of knowledge and experiences can be "communicated exceptionally well by the means of electronic networks" because they submit well to algorithmic conversion — i.e. they are "capable of being generalized , reproduced, serialized — processed in symbolic machines"— there are certain 'other' kinds of experiences and knowledges which would always elude such codification. He claims that these experiences, are not very unlike what Bataille (1992) termed *the heterological* which, in being attentive to

1 For example, Slavoj Zizek especially in his *Looking Awry* (1991) and Benedict Anderson in his *Imagined Communities* (1983).

'the other', are very often characterised by excess. In fact, he says that "*excess*...is bound up with a specific place and in the presence of the Other, the extreme muse, the experience of a duration tied to a specific locality, the accident, the surprising turn of events, passion, pain...For these unique events the networks are an impossible place, and this impossible place is already fleeing from them, before they have even had time to approach it properly" (Ibid, 284) While Zielinski's argument of heterogeneity being necessarily antithetical to algorithmic conversion seems too essentialized, it does make sense to acknowledge that the proprietary conventions of 'the algorithmic' do not entirely cohere with those of 'the heterological'. Thus, in addition to the highly intentional schemes of net policing, it seems that the very operational foundations of computers and net communications may be inherently inimical to and thereby exclusive of heterogeneous experiences and knowledges. Such policing and exclusivity constantly problematize the euphoric optimism that surrounds the notion of net communities among users and activists. Zielinski advises that "the claim made for the universality of telematic networks and the digital code as its informative content include an exaggerated and misleading promise of use value, namely, the existence of the possibility of an all-embracing, one-for-all order, that in the course of the history of human thought and nature has always been a hollow dream and often evoked by the culture industry for its own ends. One-for-all is not the great whole, but the complexly individual, the heterogeneous". (Ibid, 284)

It has been argued thus far that closure is an essential even constitutive gesture of net communities AND as such would always remain a stumbling block for those who conceive utopian visions of borderless and all-inclusive virtual communities. This problem of closure and exclusivity is not unique to net communities—*insofar as they are communities they are exclusive*. That is why it is also important for one to critically think through the notion of community before one examines the more specific problems and potential of net communities per se.

The dissociative condition of community

Historically the notion of community has been theorised through notions of collective consensus which forms the grounds for unity and harmonious social interaction; Durkheim provides the classic example of such a consensus-based community. Such theories that conceive communities as essentially based on unity are problematic because the very concept of unity implies 'sameness' whether assumed or sought after and 'sameness' itself is more of a theoretical construct than an empirical fact. As such, in all gestures to unity (unify) there is implied a *principle of homogeneity*, whereby things are submitted to an equation that cancels out their individual differences so that a larger unity based on some chosen feature(s) of 'sameness' could be *forged*. The history of communities is therefore seldom one free of violence — for the heterogeneous elements that are not proper to the homogenising logic of a certain community are necessarily and violently erased. Jacques Derrida has presented several scathing critiques of such unity-based notions of community in many of his works. He claims that "if by community one implies, as is often the case, a harmonious group, consensus, and fundamental agreement beneath the phenomenon of discord or war, then I don't believe in it very much and I sense in it as much threat as promise" (Derrida, 1995:355). He says that "the privilege granted to unity, to totality, to organic ensembles, to community as a homogenised whole, is a danger for responsibility, for decision, for ethics, for politics" (Derrida, 1997:13) exactly because of their negative implications for "the relation to the other." Derrida thus presents the possibility of thinking of a community based not on unity but instead on dissociation.

Derrida's critique of community, as well as those of a variety of other French theorists, have been largely based on their continuing critical engagements with the writings of Bataille on community. It is noteworthy that the earlier works of Jean Luc Nancy, *The Inoperative Community* (1991) as well that of Maurice Blanchot, *The Unavowable Community* (1988) (partly a reaction to and reading of Nancy's text) have structured much of the contemporary Continental debates on community, including those of Derrida (though the latter has not been particularly forthcoming in acknowledging this debt). In both the works of Nancy and Blanchot, there is a clear interest in articulating the dissociative presence of the other instead of actively denying it, though the individual arguments of Blanchot and Nancy as to how the other presences itself within the community differ significantly. Though their arguments on community and its relation to Derrida is itself worthy of some careful discussion, it is well beyond the scope of the present essay. Derrida's dissociatively structured community is the real focus of the present essay and that demands beginning with Derrida's critique of Heidegger. The privilege that Heidegger places on the 'gathering' (*Versammlung*) as opposed to the notion of dissociation for the constitution of community is heavily criticised by Derrida exactly for its negative implications to 'the other' and to difference(s). He says, "once you grant some privilege to gathering and not to dissociating, then you leave no room for the other, for the radical otherness of the other, for the radical singularity of the other." In fact, Derrida redefines the notions of 'dissociation' and 'separation' as not "obstacles to community", as they are commonly conceived, but the very condition of possibility for any community. "Dissociation, separation, is the condition of my relation to the other. I can address the Other only to the extent that there is a separation, a dissociation." Derrida also argues that such a relation does not and cannot entirely overwhelm or possess the other through knowledge, understanding or emotional investment. This is because the other remains itself throughout the relationship. This is what he calls, along with Levinas and Blanchot, "*rapport sans rapport*, the **relationless relation**", where "the other remains absolutely transcendent. I cannot reach the other. I cannot know the other from the inside or so on." And this relationless relation based on a separation is not a bad thing, Derrida says, for "this is not an obstacle but the condition of love, friendship and of war, too, a condition of the relation to the other. Dissociation is the condition of community, the condition of any unity as such." (Derrida, 1997:14-15, 107-123) However, dissociation only provides the initial condition for any community since it establishes heterogeneity as a necessary ground upon which to build community. What is required, he pro-

poses, is a whole new way of thinking about and constituting communities. This Derrida seeks to articulate through another concept—that of **hospitality.**

Hospitable Community

Derrida provides an interesting way of addressing the notion of community with dissociation as its condition in his recent yet-unpublished article: "Questions of Responsibility: Hostility/ Hospitality". Here he opposes a community based on **unity** that results from **fusion** and **identification** and which is therefore necessarily against some other. The community of unity is for him based on an "unity-against". It invokes an etymological connection between "communio" as a gathering of people and a fortification (munnis); an arming of oneself in opposition to some other. As such, the erection of a community is inherently allied to the construction of a defence mechanism which is **vigilant to** and **exclusive of** SOME other as foreigner and outsider. The homogenizing logic of community development is constantly attentive to those heterogeneous elements within itself only to enable their effective elimination or assimilation. Community as based on unity, fusion, identification, defence, closure and exclusivity needs to be redefined through, what he calls, **hospitality.**

Derrida points out that etymologically the term 'hospitality' is related to the notion of 'hostility' since the root of the former, *hospes* is allied to an earlier root of the latter, *hostis,* which interestingly meant both 'stranger' and 'enemy'. Thus hospitality, as in *hostilis,* stranger/enemy + *potes,* '(of having) power', came eventually to mean the power the host had over the stranger/enemy. John Caputo, in an interesting commentary on Derrida's notion of hospitality notes that "the 'host' is someone who takes on or receives strangers, who gives to the stranger even while remaining in control" (Caputo, 1997:111). It is clear that the 'host' is in a necessary position of power insofar as he (she?) circumscribes the parameters within which the needs and comforts of the stranger/enemy is attended to. In addition to this circumscription, the host's 'power over' the stranger, Derrida suggests, results from his (her?) ownership of the premises that is thus offered up. Given the fact that hospitality is dependent on ownership before it is offered hospitably to the other, Derrida argues, an essential tension is built into its structure. This is because it is difficult to give over to the other when you continue to own. The aporia for the giver is the tension of wanting to give but also having to have what is given away, for it is having that makes possible the giving. Derrida says that this aporia which could well paralyse any efforts at hosting the other is exactly what needs to be worked through rather than be denied. In fact, hospitality is only possible when one resists this paralysis by moving towards what Derrida calls a "hospitality beyond hospitality", wherein the very impossibility of a hospitality based on ownership as limit-condition is pushed to/at the limits. In having erected its possibilities on their very impossibility, Derrida claims, hospitality, like deconstruction, is a *to come (avenir).* The aporia of a hospitality *to come* is constituted by one's inability to know entirely or surely its specific qualities and as such, it is to be struggled with ***performatively.***

Derrida's critique of communities is aimed at their tendency to construct a defensive unity, a 'we', based on the negation and continuous marginalization of some others. Communities are, Derrida believes, essentially *inhospitable structures*. Thus, lodging hospitality as a deconstructive *graft* within this structure of the community promises to keep it open to/ for others. Hospitality allows communities "to make their very limits their openings" and thus ensures that there is always a possibility of hosting the other. This issue of how to host the other is today more pertinently raised with reference to net communities which have inherited not only some of the promises of earlier flesh communities but also their prejudices.

Hosting the Other in Net Communities:
A Challenge for Cyberfeminism

A primary aporia of Derrida's notion of hospitality is of how the host is to simultaneously (and generously) negotiate their exclusive ownership of that which they offer up inclusively to the other as guest. He asserted the need to deal with this impossibility by constant contestation of its limits enacted through acts of generosity that are performatively excessive to ownership. But what if one does not own that which they host—what if the host is hostess?

The giver who does not own is able, it seems, to deal with hospitality not as constant impossibility but as constant possibility. But what sense is there in speaking of giving what one does not effectively own? Is it really giving? What does the guest, the benefactor of the gift take away if at all it is something that can be taken away? Being part of a community is not something to be given and neither is it something that can be owned. So if community is understood as a fortification, then the hosting of the other in it does not involve giving away but a simple opening of the door - the comforting and welcome smile that is itself a gift; the gift of being part of a community. Thus, Derrida's question of how to simultaneously negotiate ownership and giving becomes less important. Historically, women have been charged with the tasks of hosting even without owning and this is not without its cultural privileges. A woman was/is seen in many different cultures as an 'embodiment' of notions of hospitality in the house she does not own and therefore is very much a *special* guest. And the female child in many cultures is actively socialised and trained to be the gatekeeper of 'the domestic' so as to better negotiate this giving without owning. The historical and discursive feminisation of the caregiving professions across various societies is not accidental but culturally coherent. It is even possible to argue that hospitality is a principal notion in the cultural construction of femininity. A problem in such reasoning however is: can we call something 'hospitality' outside relations of ownership, at least in Derrida's terms?

What happens when the hostess owns? Today more and more often women own and that poses new ethical and political questions to our feminist practices. A fundamental one is how to capitalize on our training in hospitality making it more possible within property relations, instead of forgetting our ways and jealously safeguarding our new belongings. What are the fortifications we are erecting in our cyberfeminist practices/ spaces today? While an extensive survey of the history of cyberfeminist communi-

ties would be useful here, this is well beyond the scope of this short essay. Here, after some brief observations on the development of net communities in Russia with a view to showing its complicities with the construction of the Russian nation as a homogeneous entity, it is argued that the cyberfeminist articulations in Russia are in serious danger of replicating this very same homogenizations. However, it is also suggested that because of its own marginality within the Russian polity, cyberfeminism presents greater possibilities for evolving strategies of hosting the 'other' through its net communities.

Cyberfeminist Strategies for Russian Net Communities

The historical development of the Russian nation and its attendant sense of community have been largely continuous and coherent with the developments in net communities in Russia. This historical/discursive construction of a homogeneous Russian nation and community has been detrimental to the articulation of the different minorities within. I argue that Russian feminism and cyberfeminism have to be aware of this violent process of homogenization of the Russian nation for there is a constant danger in reinforcing and/or repeating these very same practices of marginalization of its own Others.

Historically the drive to build a strong centralized Russian state was based on the clearing out of a purified (Russified) space of a 'truly' Russian nation. New era of national purification started with Catherine the Great's *Russification* policy which employed an old Russian strategy of deporting those incompatible with the 'Russian way' or 'Russian soul' to Siberia. For example, from 1760 to 1800, millions of people were deported from Ukraine into Tatar raids and to Siberia, and this so-called 'purification' of the 'Third Rome' was supposedly completed. It is noteworthy that in the first *ukaz* (law) on Russification of 1764 this policy was articulated as 'the means of assimilation of the Cossack into the Russian population' and bringing him to 'acceptable cultural standards', since he lacked 'social discipline and intellectual sophistication' according to Catherine's pseudo-Enlightenment notions.

Thus from the time of Catherine the Great who effected her "Russification" campaign, a sort of cultural normalization was effected through setting up "Russianness" as the norm, whereby those identified as "non-Russian" were often excluded to Siberia, which thus became simultaneously conceived as the "margin of Russia", an empty one. I argue that culturally and politically Russia has had a long tradition of building itself—as a nation and its sense of community—through an active homogenization (what Catherine the Great initiated as 'Russification'). Such active Russification has resulted in a sense of community being constructed through the negation of the heterogeneous elements within. It is useful to show that in addition to being a policy imperative during the rule of all Russian tsars such homogenization carried on even during the communist era in former Soviet Republics—though this time not discursively related to 'Russification', but perpetrated through communist ideals of equality and internationalism. Given the historical/discursive construction of the Russian community as essentially homogeneous, it is no surprise that the net community in Russia developed in a manner that mimicked and reinforced such homogeneity rather than radically challenging it. As such, the net community in Russia was constructed on the basis of and re-enacted the very same boundaries and policing mechanisms as were found in the national community. The minorities and their interests were similarly marginalized in both communities.

Without giving a detailed analysis of Russian net communities (that requires a separate study) it is important to stress a few aspects of their recent development with a view to showing the way ahead for cyberfeminism in Russia. First, the work of the various political, cyberfeminist and art groups on the net is homogenized by the use of the Russian language (and English as an alternative): a practice that is seldom reflected upon as problematic and/or limited. In a manner coherent with the governmental emphasis on Russification, the Soviet regime had made education in the Russian language compulsory for its many minorities. This institutionalised education in and familiarity with the language may seem like a good justification for the continued use of that language to bring about better net communications and thereby more unified net communities in Russia. However, the minority communities in Russia have historically resisted Russification and the Russian language was very often seen as an extension of Russian imperialism. While it may be argued that the minorities could in fact employ the dominant language to their advantage in the net, there is also much to be said about the systematic marginalization of minority languages that is justified and institutionalised by such practices. Moreover, the other net practice of using English as an alternative to Russian shows that the existing net communities strive more for the English-speaking 'outside' than exploring or linking up with differences 'inside'. It seems thus that the net communities in Russia are more interested in achieving a sense of community if at all with those 'outside' Russia and while one may applaud in this the loosening of the thus-far impermeable Russian borders, one cannot but bemoan the institutionalised neglect of the 'others-within' perpetrated by such net practices.

Second, prominent net groups are mainly based in Moscow and St. Petersburg and so symptomatic of Russian history, capitalize on being capitols by not opening up doors for others and jealously controlling resources and discourses. The relevance of the geographical locations of net communities has rarely been addressed especially since too much attention has been placed on the borderless and placeless nature of cyberspace. However, the socio-political and economic implications of the physical location of net providers and operations need to be examined much more carefully before one celebrates the ecumenism of cyberspace. Russian urbanization has actively encouraged the centralization of activities and resources in either of these two major cities. This has created a situation where local and foreign investors/organisations investing into new technologies have tended to work from/with these more 'centralized' net groups that have come subsequently to represent 'Russian cyberspace'. Even the elementary courses in Internet usage for women in Moscow (Moscow Gender Centre) and St.Petersburg (St.Petersburg Centre for Gender Problems and CyberFeminClub) take for granted the

cultural and linguistic homogeneity of those great Russian metropolises. Thus, women of other ethnic and religious backgrounds, so 'visible' and 'talked about' today in Russian capitols, are left out from those programmes. It seems thus that the exclusionary practices of the Russian flesh communities have not been seriously challenged but merely reinforced in their net communities and their practices.

Third, in terms of Russian feminism the debate has still not included minority issues in a big way (probably, the only exception here is St.Petersburg Centre for Gender Problems that has been pushing for a discussion and recognition of lesbian communities). While ethnically different women work together against war and military practices (Muslim Women Congress and the Committee of Soldiers Mothers) Russian feminist circles have shown very slow progress in terms of discussing on issues of Russia's minorities, especially without reproducing the age-old orientalist practices[2].

However, cyberfeminism is a very new field in Russia and therefore the disciplinary and institutional parameters have not been set too tightly yet. My experiences of collaborating with other Russian cyberfeminists (e.g. Alla Mitrofanova and Irina Aktuganova) show that there is wider space for articulation of our differences there than in some other Russian or Western communities. There is a lot of space for negotiation and development of alternative strategies for this relative newness and uninstitutionalised qualities of cyberspace in Russia has allowed cyberfeminists to do more radical things. Cyberfeminism thus provides a rich technological facility to articulate feminist as well as minority concerns, especially if we are aware of the necessity to *practice difference, face and listen to others* and not just "celebrate" our highly homogenized net communities (here we can learn from the experiences of post-colonial feminism). My optimism in the possibilities of effecting such 'differentiating' cyberfeminist interventions into Russian net communities derives from my work with *Mailradek,* a net activist group.

When I started to work with the community of the *Radek* magazine, its agenda had practically nothing to do with women. Thus from the very beginning it was clear to me that I had to carve out a space within Radek for my own feminist agenda. Radek at first was the title of a journal on theory, art and politics initiated by an all-male group of left-wing radical artists and activists in Moscow. Last year, they started a project called MailRadek, which was supposed to be an Internet complement to their print journal. It was becoming quickly apparent to me that the activities of Radek the print journal and the meetings they issued from were relatively more difficult to break into than that of its net version, MailRadek. It is this hospitality of the net Radek community (e.g. Oleg Kireev) that allowed my active participation in their work; the 'hospitality' I spoke of earlier as being fundamental to the constitution and development of net communities.

My position in Radek has been a hostess who does not own but has been, at times, left in charge of the door of its community. When I take this responsibility, I go along the borders/limits trying to stretch the Mailradek net community by inviting other 'guests' there—namely, women, ethnic and religious minorities. In my net articles I have constantly invited Russians to face the question of difference in 'Russian' spaces, cyberspace being one of them. Taking into account the history of the homogenization of the Russian nation, I think it is crucial that we, Russians, learn new ways to open up a space for an articulation of the heterogeneity of the Russian nation. I see such cyber-interventions as useful in articulating the differences within Russia despite the net's limitations of neutralizing such differences through the use of the Russian language. It is time for Russian net communities to open themselves up not only to different experiences but also to different ways (languages) of expressing them.

I have argued that cyberfeminist strategies, in following the feminist and deconstructive critical traditions of opening up limits, have to make the closure and exclusivity of net communities a constant point of contestation so as to open doors into and actively create hospitable spaces for 'others'—whether different in terms of class, ethnicity, religion, culture and sexual orientation. Through sexual difference we must move towards an ethics of a cyber/ feminist self, that would embody hospitable, not hostile, hostesses. I would strongly suggest that we continue remembering the history of our hospitality as hostesses who did not own even while we are becoming owners in cyberspace, of our computers, Internet accounts, web-pages and MUDS. While recognising the limits of the community, Derrida advised a strategic use of these limits as openings. It is such an opening that I have tried to identify here.

2 St.Petersburg Centre for Gender Problems provided me with an opportunity to raise this question. On the 8th of April, 1999, I gave a lecture there entitled "Russian Feminism and Ethnic Minorities" where I discussed the issues of recognition of difference in general, and how Russian feminism, from my point of view, is rarely refelcts on homogeneity of its own community. This topic does receive a greater attention today, though my experience of 'pushing' these issues shows a rather slow progress in feminist community (no matter how small it might seem) that still fails to take into account Russian history of homogenization and exclusion of 'others' and wider social context of Russian ethnocentrism, raising Pan-Slavism and the growth of pro-rasist organizations.

References

- Anderson, Benedict. Imagined Communities. Verso and New Left Books. 1983
- Bataille, Georges. Theory of Religion. Trans. Robert Hurley. Zone, 1992
- Blanchot, Maurice. The Unavowable Community. Trans. Pierre Joris. Station Hill Press.1988
- Caputo, John (ed.). Deconstruction in a Nutshell. Fordham University Press. 1997
- Derrida, Jacques. The Other Heading: Reflections on Today's Europe. Trans. Pascale-Anne Brault, Michael Naas. Indiana University Press, 1992
- Derrida, Jacques. Points...Interviews, 1974-94. Ed. Elisabeth Weber. Trans Peggy Kamuf et.al. Stanford University Press, 1995
- Derrida, Jacques. "The Villanova Roundtable: A Conversation with Jacques Derrida", in Deconstruction in a Nutshell. Ed. John Caputo. Fordham University Press. 1997
- Nancy, Jean Luc. The Inoperative Community. Trans. Peter Connor. University of Minnesota Press, 1991
- Stone, Allucquère Rosanne. The War of Desire and Technology at the Close of the Mechanical Age. MIT Press. 1996
- Zielinski, Siegfried."Thinking The Border and the Boundary", in Electronic Culture: Technology and Visual Representation, edited by - Timothy Druckrey. Aperture Foundation Inc. 1996; P. 279-290
- Zizek, Slavoj. Looking Awry: An Introduction to Jacques Lacan Through Popular Culture. MIT Press. 1991

Faith Wilding/ Maria Fernandez

Feminism, Difference, and global Capital

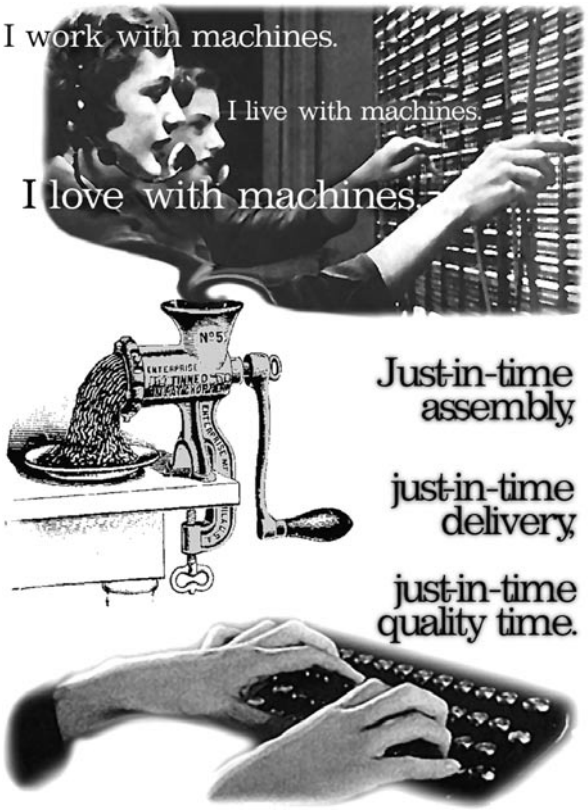
Introduction: New cyberfeminist strategies involve examining the connections between historical and contemporary sites of feminist theory, analysis, contestation, struggle, and resistance, and the new technological developments which are having a profound impact on these sites. Global capitalism, and the spread of technologized work and life to even the remotest parts of the world are having far-reaching effects on all populations of women. The global pancapitalist network has closely interlinked the fates of people from different cultures, backgrounds, races, classes, and economic levels. Simultaneously, in the 90s we are seeing increasing erosion of many feminist gains. It is imperative for women's survival to form practical and politically effective alliances at both the local and the global level. Our conversation addresses some of the points mentioned above.

Faith Wilding: The radical goals of early british and american feminists were to dismantle the patriarchal institutions of the Church, State, and Family. During the 60s and 70s feminists in Europe, the US, and Australia created an international movement with wide repercussions for many women politically, economically, and socially. The movement was created largely out of local CR and action groups and distributed globally through feminist texts, actions, and art works. In the US, the principal feminist achievements could be seen in a strong women's health movement; legislation for affirmative action, job equity, and pay; the spread of academic women's studies programs; and the winning of some reproductive and sexual rights such as legalized abortion and birth control.

In the 90s we are seeing increasing erosion of many feminist gains, and new problems are arising for women: For example: Affirmative action is being eroded or abolished altogether. Women still earn less and work longer hours. Women still work a double shift. Working conditions for women in third world countries and the global sweatshops are appalling and beyond some improved conditions in the garment industries nothing is being done to mobilize for improved conditions for electronic workers. Although women are well represented educationally in certain fields, they still find it difficult to enter the male culture of many of the sciences such as computer science and the higher rungs of technological programming and design. Women are not yet a full part of the design and implementation of digital technology, and have little power in the

debate over its effects and deployment. Furthermore, women's sexual and reproductive rights are under renewed attack in the US. Reproductive and sexual issues are very complex in underdeveloped countries where protection against AIDS and STDs, forcible childbearing, or forcible birth control are almost nil.

Global capitalism, and the spread of technologized work and life to even the remotest parts of the world are having far-reaching effects on all populations of women. Ironically, the global pancapitalist network has closely interlinked the fates of people from different cultures, backgrounds, races, classes, and economic levels every-where into complex chains of interdependency which need to be much more closely examined and understood by the public. Changes of identities and subjectivity are taking place rapidly bringing with them new problems of representations of difference in the face of global homogenization. These are all issues for cyberfeminist investigation and action.



María Fernández: In recent years, critics and artists have vigorously challenged utopian rhetorics of electronic media theory. Some feminist writers underscore the realities of women's exploitation and oppression in the global capitalist system of production. It is now clear that it is not not only poor, young and uneducated women in areas of the "Third World" who are exploited but also white-collar workers and highly educated women in the "First World" working part-time or at home in exchange for underpayment, longer hours and no benefits. Women do approximately two-thirds of the world's work and earn about one tenth of its income and the electronic revolution has done nothing to change this. We can no longer assume that exploitation and oppression pertain only to those whom we see as different and distant from us. "We" are also heavily implicated and vulnerable.

Electronic networks have been helpful in bring together women from diverse geographical and ethnic backgrounds. Women have organized globally around a variety of issues including work, health, and political oppression. In order to reconcile local and global, virtual and lived worlds, communication and collaboration among women must occur in parallel with local organization and activism. But this is no easy task. Even at the local level we fail effectively to communicate due to long standing barriers. In order to surmount them, it will be necessary to become acquainted with feminist history and reexamine obstacles that curtailed dreams of a "universal sisterhood" during the seventies and early eighties. At that time, the utopia of an alliance among the world's women was challenged by women of color who questioned the validity of the notion of a universal woman. At present, few feminists would argue for the homogeneity of women's experience, yet this assumption is implicit in the refusal to discuss issues of difference and marginalization in much of cyber theory. Issues of race are underdeveloped and class is addressed with much unease. As noted by Cameron Bailey, the anonymity of electronic communications facilitate what in the past used to be called "passing". In public fora, people of color often prefer not to reveal their race and ethnicity. While adopting an identity of "no color" allows for easier communication in cyberspace, it does little to disturb boundaries constructed to alienate groups from each other in the lived world. Historically, people's failure to negotiate difference has contributed to dismantling productive alliances. Much has been written, for example, about the prominent role that attitudes towards racial difference have played in the splintering of workers movements in the United States.

If successful organization among women is to occur at both the local and the global level we must examine and confront our discomfort with issues of race and class. The Third World maquiladora worker much discussed and even fetishized in recent cultural criticism for many of us remains an abstract entity. First world cultural critics are at a loss about what to say and how to act with these women in the flesh It would seem that empathy for their plight is intellectual and/or strategic but not embodied.

Recent writings by feminists of color reiterate problems seldom discussed in electronic media theory: universalism, marginalization, stereotyping, strategies of silencing and rendering invisible. These practices, controversial in the seventies and eighties are still with us; but we wish them away in front of the computer. Contrary to the emphasis in disembodiment persistent in much of cyber theory, these issues are intimately related to the body, to the flesh, to the way we relate to others in an embodied way. The racialized body as sign is always already over determined. How can we produce change if we continue to be trapped within boundaries that promote alienation? Most of us abhor prejudice and domination but have not yet learned to recognize the ways in which we support the very structures we wish to eradicate.

In order to promote change, I would like to propose a very modest starting point: the revaluation of the old dictum "the personal is the political." "The personal" has usually been understood as our most intimate relations. Feminists have spent great amounts of energy observing and re-evaluation inherited gender roles and attitudes and those efforts eventually resulted in change. It is now necessary to apply comparable energy to becoming aware of how we deal with differences perceived or imagined. Many of our attitudes to difference are also inherited and embodied. These attitudes and behaviors are constitutional to our concept of self and our social arrangements. Questioning them is a difficult process often met with resistance not only from ourselves but also from others.

Examining our reactions to difference does not mean being less present in the digital world. On the contrary. We need to strengthen our presence in that greatly contested realm but with a consciousness of our bodies and embodiment. In the celebration of our union with machines, it is critical to keep in mind that technology has been an integral part of the construction and sociohistorical positioning of identities. Centers result from the creation of margins. If we believe that we are at the center, we owe our position to the marginalization of other spaces. In the current state of technologically- facilitated global capitalism it becomes imperative for our survival to form practical and politically effective alliances among various groups of women. Unquestioned prejudicial attitudes restrict and weaken our collective possibilities.We may need to let go of our central roles and welcome other ways of interacting in and out of cyberspace.

Points of The Discussion:
1. The problem of essentialism which arises in both feminist and post-colonial discourses. The particular ways in which essentialism is perpetuated in technological environments.
2. The interconnections of patriarchy and technology: The military, Bio and medi-tech, space industry, labor issues, global economy, women's bodies.
3. Relationships between issues of reproductive biotech and difference:
--homogenization
--normalization
--reifying differences that exist because of different levels of access
--the applications of technology which are employed differently to enforce certain hegemonic power structures.
--the fascistic implications of bypassing and regulating sexual body processes which can be seen as complicity with certain utopian electronic theories the meat is obsolete) -the dangers of treating the body as the engineering of new compliant organic platforms.
4. Building networks around issues of labor, difference, and biotechnology:
--the necessity of network building brought about by the conditions of new global capital and technologies.
--the (problematic) perception of privileges which often keep people from forming networks.
--how networks can work. What can they actually accomplish: information, instant publishing, organizing, idea exchange, pressure? Examples: Faces, obn, Zapatistas, Zamir, nettime, subRosa.
--networking strategies should not only be electronic; machines should not obliterate bodies. The local is intertwined with the global.
5. Creative tactics and strategies: the network as art exposing the intersections of technologies and everyday life.
--Activist art: reframe and embody the data; engage people in discussing and discovering the ideologies and mythologies of power, representation, science, and technology through the "real" manipulation of, and engagement with, actual materials and images and actions.

1 Critical and radical education: A reconceptualization of public values. (The personal is the political)
--Doing the homework—study, research, analysis, self-education.
--Not getting stuck in essentialized identity politics. Thorough discussions and examinations of issues of difference in every day life.
--Corrupting youth—education at all levels. Insisting on teaching critical visual literacy, and media and tech literacy and critique.
--Opening up a wide discussion in many different venues about the effects and implications (especially on women) of the new bio and medical technologies, and the reconstruction of the body and identity through technologies.

Claudia Reiche

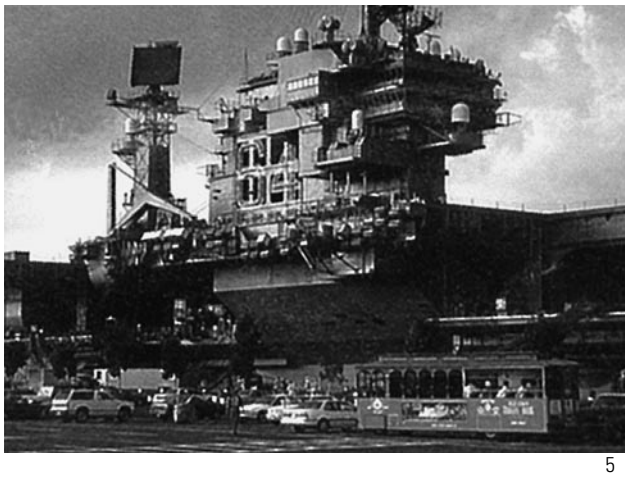
Bio(r)Evolution™

On the Contemporary Military-Medical Complex

This text is the result of my impressions while attending two international medical conferences[1] in San Diego in January 1998. These have been Medicine Meets Virtual Reality 6 and Next Med. Beyond these experiences have been supplemented by the subsequent conference Medicine Meets Virtual Reality 7[2] in San Francisco this year.[3] Certain aspects of the program were shared by these conferences. One could even say that one was the continuation of the other, i.e. as an articulation, and even more as a condensation of the contemporary military-medical complex, which finds an important and varied center of research in the town of San Diego itself.

The "complex" San Diego

In San Diego, this "complex" gains a special meaning. Tourist pamphlets emphasize its importance as a "Navy town" by offering various sightseeing tours inviting us, for example, to "Join Old Town Trolley Tours as we show you one of the largest military complexes in the world."[4]



5

The location of the conference seems to have been quite deliberately chosen with respect to this specific economic, political, geographical and social constellation. The Mexican border is nearby, in fact, it can be reached by local trolley. Restricted military areas abound within the town and around it, the monuments for fallen soldiers cannot be missed, the Navy dominates the architecture in the area with the living quarters for the families of enlisted and retired army personnel. There is a lot of overlapping with the civilian world, as there is, for example in academia. The UCSD (University of California San Diego) tends to inherit professors who have terminated their posts in military institutions, especially if their area of research embraces the new media. Local bookstores demonstrate a gender-specific manifestation of the influence of the military complex. The "women"-section offers paperbacks on Lady Diana or fantasy novels. But there is also a special section for "men", which holds oversized picture documentaries on the military, books on military history or reports on the "Operation Desert Storm" and the operation in Bosnia.

A further characteristic incident that comes to mind is the story of the driver who ran amok and found his fifteen minutes of fame and inter-national press coverage in 1995 by stealing a M-60 tank and driving it over the high-way, crushing several cars, buildings and streets along the way. The man had been trained as a tank-driver and then let go in the wake of the so-called downsizing of the military, which involved budget-cuts and staff reductions. A TV-documentary 'The scariest police chases in the world' (Fox), presented the filmed footage on the event, 5-18-95, combined with comments of eyewitnesses. One stood out. A shocked and fascinated young man coined the phrase: "This is war! This is war!"

6

Despite a staggering reduction of the national defense expenditure since 1990, San Diego has retained its importance as a decisive center of activity.[7]
Nevertheless, the measures of military downsizing have already brought about significant changes. Starting in 1990, California has experienced a rise in unemploy-ment that is proportionally much higher than in the rest of the United States and still lies above average.[8] The most drastic cuts concern the field of the aerospace industry,

1 NextMed: The End of Health Care? (Thought ∞ Health ∞ Immortality) A Conference on the Bio(r)Evolution™", Conference Organizers: Aligned Management Associates Inc., San Diego CA, San Diego Hyatt Regency, 27.-29.1.1998 and "Medicine Meets Virtual Reality: 6, Art, Science, Technology: Healthcare(R)Evolution™", Conference Organizers: Aligned Management Associates Inc., San Diego CA, San Diego Hyatt Regency, 28.-31.1.1998.

2 "Medicine Meets Virtual Reality 7, The Convergence of Physical &Informational Technologies: Options for a New Era in Healthcare", Conference Organizers: Aligned Management Associates Inc., Escondido CA, San Francisco Marriot Hotel, 20. -23.1.99.

3 I attended these conferences as part of my research for the project: "Körperbilder. Mediale Verwandlungen des Menschen in der Medizin" ("Images of the body. The medial transformation of human beings in medicine") which is managed by Prof. Marianne Schuller and sponsored by the VW-Stiftung.

4 Historic Tours of America, The Nations Storyteller ®: Free Map San Diego, CA, Old Town Trolley Tours, © 1997.

5 Ibid.

6 "Die wildesten Polizeijagden der Welt", RTL, 4.10. 1998.

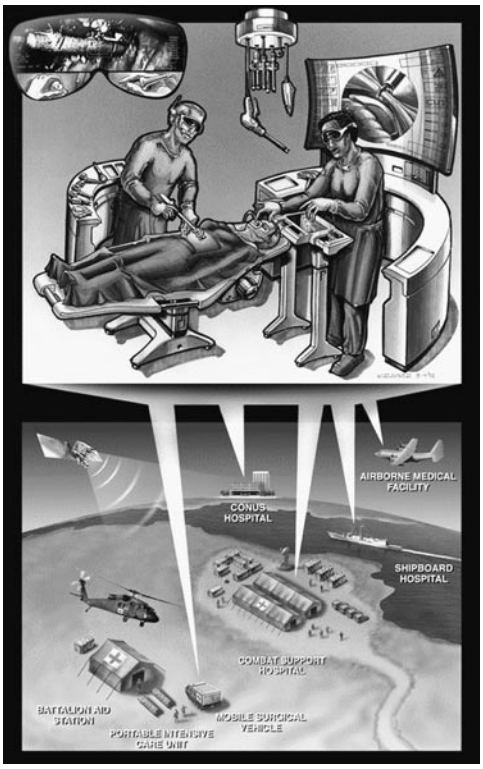
7 "Since 1990, employment in defense and defense-related industries has been cut in half." in: California Trade & Commerce Agency: California, An Economic Profile, September 1997, http://commerce.ca.gov/california/economy (9.6.1998).

affecting the whole of the economy in California. The transition to civilian market potentials has already been made in many areas, especially with regard to information technology, such as high tech medicine. This development is in concert with the policies of the defense department. The "Dual-Use-Act" outlines the intentions of the Defense Advanced Research Projects Agency (hereafter referred to as its acronym DARPA) of preferably financing research projects that can also be implemented into civilian health projects. This means a major transfer of technology: decades of military-technological knowledge will be poured into medical areas, also as a means of stabilizing the job-situation in the shaky military industry.

10

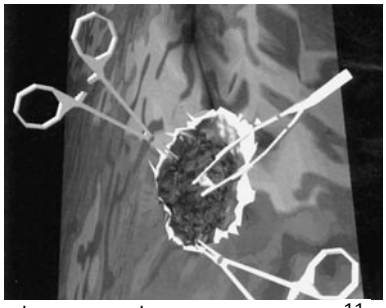
The Conferences

This special regional situation which already demonstrates an economic shift from military to civilian high technology, with a special emphasis on biomedicine, was not, however, the subject of these conferences. No attempts were made, whether in the papers read or in the discussions that followed, at questioning so-called "dual-use" in military and civilian matters, as, for example, in the dubious militarization and technologization of medicine. On the contrary, the general attitude was global and optimistic. On the horizon, if not squarely at the center of many presentations, stood not only the future of the American Healthcare System, but also the future of the Earth and even of mankind itself. On the other hand, a large proportion of the speakers came from San Diego and California, working in research or as businessmen in the area of technology, and there was one military reference which popped up repeatedly: medical care on the battlefields of the future.



9

The question of who should attend these conferences was answered with an almost identical list of professions: "Physicians, Surgeons, Roboticists, Information Scientists, Medical Technologists, Biotech Entrepreneurs & Resear-chers, Biomedical Profes-sionals, Medical Technologists, Venture Capitalists & Corporate Futurists (...), anyone interested in the future of medicine and biotechnology".[12] However, that in itself does not explain the many highly polished patent leather shoes that seem to belong to the staple ward-robe of the US-military and which remained astonish-ingly motionless on the thick carpets of the lobby and the "ballrooms" of the hotel that had been converted into conference rooms.



11

Here I would like to invite you on a quite subjective "guided tour" of subject-matter that seemed to me to emerge as a "military-medical complex" during my attendance at the conferences. The broad scope of this tour mirrors the broad concept of the conferences, which promised, under an enlisted trademark, no-thing less than a definition of the future of mankind--a better, safer, healthier future.

The starting point of our tour will be the Sixth Annual Conference on "Medicine Meets Virtual Reality™", which labels itself as the first international forum for the interfacing of medical and interactive technologies as a guarantee for "creating the future of healthcare".[13] The organizers' description of the conference spares us no superlatives; its achievements are offered for consumption:

"Approximately 800 professionals attend MMVR each year, one-fifth coming from outside the US, to hear papers presented by the world's leading researchers and developers, and to view exhibits and hands-on demos of the latest technological advances. (...) This is the conference where hype is left behind ..."[14]

The subject of this year's gathering was stated as: "Art, Science, Technology: Healthcare (R)evolution™". Slogans on posters and glossy pamphlets maintained that: "Medicine is art. Medicine is supported by science. Medicine is enabled by technology." The subject of MMVR 7 in San Francisco was: "The Convergence of Physical & Informational Technologies: Options for a New Era in Healthcare", with on section called: "Women and Virtual Reality". The second conference in San Diego which inspired my title, was named: "Bio(r)Evolution™, NextMed: The End of Healthcare? (Thought ∞ Health ∞ Immortality)".

8 Op.Cit., California Trade & Commerce Agency: California, An Economic Profile.
9 http://web_nt.sainc.com/arpa/abmt/ngoef2.htm, (1.4.1999).
10 http://www.atalink.co.uk/DSR/CLIENT/battle.htm, (1.4.1999).
11 http://musculographics.com/lts.htm, (1.4.1999).
12 Aligned Management Associates, Inc., pamphlet on: Medicine Meets Virtual Reality: 6, San Diego 1998, back cover, and Aligned Management Associates, Inc., pamphlet on: Nextmed, San Diego 1998.
13Aligned Managment Associates, Inc., program; Medicine Meets Virtual Reality: 6, San Diego, 1998, p.1; http://www.amainc.com
14Aligned Managment Associates, Inc., pmphlet on: Medicine Meets Virtual Reality: 5, San Diego, 1997, back cover.

The titles and subtitles of the two overlapping conferences set the pace for the phrasing of theses, queries and goals. The protection of the titles by trademark is the first thing that catches one's eye. Obviously, words are viewed here as trademarks, part of a business transaction. Following the argumentation of the conferences, one could see the titles as "instruments of information." In endless repetition, introductions and closing speeches maintained that "the future of healthcare is information." or, as the guiding principle of the conferences loftily maintained, "Information Heals."
The meaning of the word "information" in healthcare varies in quality, ranging from self-help-groups that exchange their views through the Internet, chip-cards for the extensive electronic registration of patient records, to progress in the deciphering of the human genome.

"Information" also stands for health education in the widest sense. Thus, the question mark in the title of the conference "NextMed: The End of Healthcare?" does not indicate a critical evaluation of the possible collapse or financial ruin of healthcare in the US, but rather takes a positive stand concerning the future. The main idea, reiterated endlessly, proclaimed that a new concept of healthcare could reduce a large proportion of the costs in the healthcare system, for example, through the reduction of direct contact with doctors. How can this vision be reconciled with qualitative improvement in healthcare?

15

For clarification, statistics are cited that seem to prove the extreme inefficiency of the current system: 50 to 80 percent of all people that consult a doctor are in no need of medical help. 70 to 80 percent of all health problems can be fixed at home, if one knows what to do. Not a lot remains to be treated.[17]

The remaining cases that require healthcare for recognized, more or less "objective" health problems would, as several lectures demonstrated, be eliminated through the intervention of genetic engineering against, for example, aging or cancer.[18] The ideal of everlasting health for all was held forth in all seriousness as the "happy end" of the development of "healthcare," with genetic engineering defined as a force of the near future with reference to promising animal experiments. "Thought ∞ Health ∞ Immortality"--the conference program of NextMed phrases this perspective as follows:

16

"The End of Health Care? The ability to manipulate genetic code presents the possibility of ending worry about diseases and defects which burden humankind. Deliberate Manipulation of the genome for physical 'improvements' may be closer at hand. Perhaps lasting perfect health won't always be a dream. ... Further reaching than computers and way beyond hype about the Web, the intersection of medicine and biotechnology will be the future of life, itself. Physicians, researchers, entrepreneurs and investors can glimpse this future; with an exceptional group of minds thinking together, NextMed will be the looking glass."[19]

Disease, the insinuation goes, is a thing of the past, conquered by information technology. But what can be the meaning of "healing through information"? A critical mind or a specific knowledge is equated with the genetic information of body cells, as if it were all one and the same thing. The difference in possible meaning is neutralized by reducing all levels to one central formula. How should disease be conquered by the good use of this all embracing "information"?
I would now like to illuminate one project as an example of the realization of such "healing information" that will allow some definite conclusions.

The "Visible Human Project™"

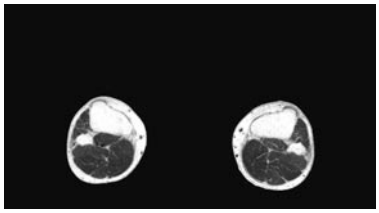
The "Visible Human Project" has gained prominence in many respects. Its portrayal in newspapers, magazines, television documentaries, online-sites on the Internet as well as scientific conferences defines it as the most advanced and enhanced attempt at visualizing medical data. Astonishingly enough, the main interest of popular as well as scientific reports seem to be the endlessly repeated idea of a transition: from a living organism to an oddly

15 Aligned Managment Associates, Inc., program; Medicine Meets Virtual Reality: 6, San Diego, 1998, p.1; http://www.amainc.com
16 "Standing at 40 stories, the Hyatt Regency San Diego is the tallest waterfront building on the west coast.", as the conference location is described on the 'Travel Web PhotoPage', http://www.travelweb.com/TravelWeb/init.html?p_page_type=PHOTO&p_photo_type=PROP&p_brand=HY&p_pid=10610&p_section_order=1, (1.4.1999).
17 Already cited by: Joe Flower, "HOTS: Health Orientated Telecommunication," in: Wired, January 1994, http://www.well.com/user/bbear/digihealth.html (25.5.1998), presented by George Poste, "Molecular Medicine, Population Genetics and Individualized Care."
18 E.g., in lectures by: Robert Strausberg & Carol Dahl, "The Genomics Revolution: An Enabling Platform for a New Era in Biomedical Research," Dr. Stephen Johnston, "Sequence Space: To Boldly Go Where No Life Has Gone Before," Ward Dean, "Aging: The Disease Which Afflicts Everyone Over the Age of Thirty-five: Methods of Diagnosis and Treatment."
19 Aligned Managment Associates, Inc., NextMed: The End of Health Care?, San Diego 1998, 1.inside.

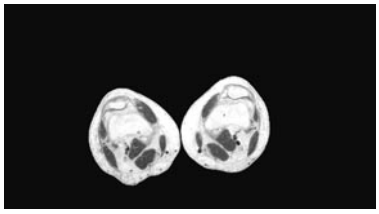
"living picture". The choice of words reminds one of the one-time belief in the potential of cinematography. Among the early definitions of the cinematographic technology we find terms such as "bioscope", "biograph", "living photographs" and "living images". I would like to follow this misinterpretation of visualized "life" in the current example of the "Visible Human".

The "Visible Human" was conceived by the US National Library of Medicine. The long-term goal of this organization is the establishment of an extensive "Digital Image Library" connecting medical image- and text-information, prepared as a knowledge bases, following the concept of a "visual knowledge".

The first project on the long walk to the "Digital Image Library" was the "Visible Human," commissioned in 1986. This digital archive of a visible human necessitated the registration of the data-volume of a "complete, normal adult male and female"[20] through digitized photographic images for cyrosectioning, digital images derived from computerized tomography and digital magnetic resonance images of cadavers. This data was acquired over the last five years by computer scientist Victor Spitzer and anatomist David Whitlock at the Health Sciences Center of the University of Colorado. The data-set of the male cadaver was completed first and named "Adam."



21



22

Heralded as the "first digital description of an entire human being"[23], the "Visible Human male" stands not only for one male cadaver, but is quite casually also seen as a novel definition of the "entire human being", (to be supplemented by the second specimen, the female 'version' of this new definition.)[24]

The aim of representing a complete "human being" in a digital image library may seem astonishing and is, clearly, theoretically impossible, since the values tend towards the infinite. The practical aim is, of course, a high degree of technological precision and completeness in the registration of images, with a data set that is as large as possible in order to guaranty a high optical image resolution.[25]

However, the amount of data was not what made the "Visible Human Project " famous. The images of the cadavers were represented in print media and television reports as something quite different, namely, as the "fantastic creation of the first (real) digital human being."[26] The supposed "life" of this data made headlines. The data-set "Adam" was described in abiblical sense as a kind of repetition of creation, as the resurrection of dead matter. Newspapers and television defined the whole project as a revitalization, the electronic "resurrection"[27] of a dead body as if a person might be able to "live on" in the form of complete, extensive and identical data in the computer. The quest for completeness in the registration of image data is transformed into the belief in the complete identity of the image and the portrayed, as if one were the identical double of the other. Images are thus seen as clones.

During recent years, scientists have been working on the data to produce increasingly "realistic" simulations that enable numerous three-dimensional visualizations - the so-called "Virtual Human" - from the cyrosectioning photographic images. Future applications of the data-set "Adam" include the implementation of "virtual" motion, in order to attain the active and passive simulation of motion.

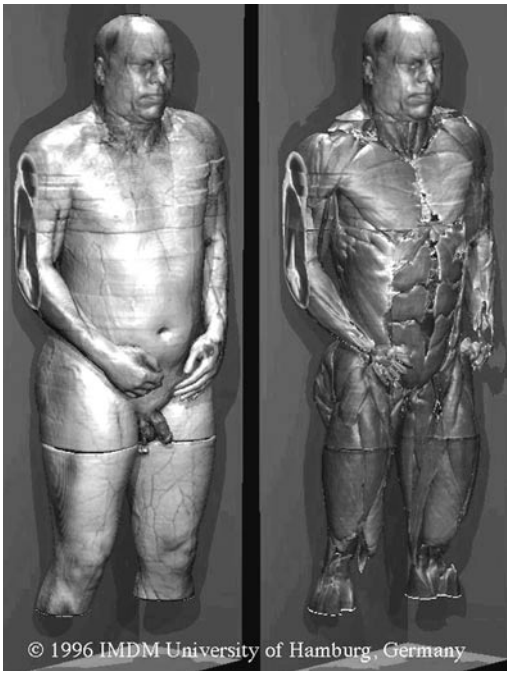
"Teaching applications will range from identifying anatomical structures on the cross-sections to visualizing full motion of the human form. It is this kind of interactive total body control and simulation (including simultaneous modeling of all the synergistic and antagonistic muscle motions) that will challenge today's best supercomputing facilities."[28]

Victor Spitzer himself outlined the planned animation of

20 National Library of Medicine, http://www.nlm.nih.gov/factsheets.dir/viisible_human.html (9.1.1996).
21 Sagittal and coronal cross-section of the Visible Human Male, University of Colorado Health Sciences Center, Center for Human Simulation, Anatomical Visualization. Incorporated, http://www.uchsc.edu/sm/chs/browse/browse.htm, (1.4.1999).
22 Sagittal and coronal cross-section of the Visible Human Female, Ibid.
23 University Corporation for Atmospheric Research, http://www.ucar.edu/ METHSCI/VHP.html (24.1.1996).
24 See: Lisa Cartwright, "A Cukltural Anatomy of the Visible Human Project", in: Paula A. Treichler et al. (eds.), The Visible Woman, New York 1998.
25 The project itself revised its opinion on what size of data-set could represent "a complete human being." The representation of the Visible Human Female, named Eve, was completed in 1996 and consisted of a data-set that was even more "complete," i.e., three times as large as the one representing Adam. The "realism" portrayed is defined in proportion to the size of the database and can be extracted from the following, much-cited numbers: Adam's data-set requires 15 Gigabyte memory space; Eve's data-set approx. 39 Gigabytes.
26 Maria Biel, Schöpfung, loc. cit. pp. 87-91.
27 Frankfurter Rundschau, 29.11.1995, p.34. Frankfurter Rundschau, 29.11.1995, p.34.
28 University Corporation for Atmospheric Research, op. cit.

the data in a television interview[29]: the formation of muscle movements, the addition of the motions of a beating heart, the simulation of the entire blood circulatory system as if he were talking about a scientific usage of special effects programs that movies employ for the digital modulation of synthetic figures ironically, Hollywood is as dependent on a realistic impression of motion as is the field of medicine. Victor Spitzer, however, also mentioned further ideals in the "realistic" revitalization of the virtual body. Not only will the playback and modification of prepared sequences of motion be made possible, but also the implementation of programs with mathematically unpredictable processes--such as those from the field of "Artificial Life"--on the virtual "human being." In this way, for example, aging processes with their implications on soft tissue and other physiological processes could be simulated, as couldthe development of diseases, such as the emergence of a tumor at a certain location in the brain.[30]

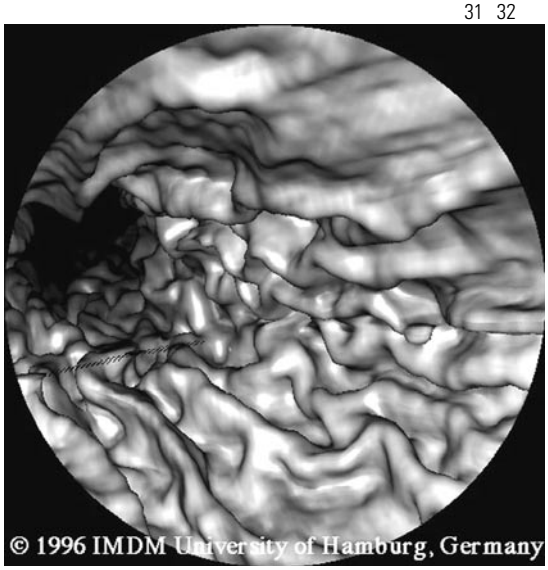
The further manipulation of the data-set "Adam" has the long-term goal of offering Virtual Reality environments that allow visual and tactile feedback and can be used for the simulation of surgery on the virtual human being. The high level of realism striven for would allow the simulation of the changing of shapes in the three-dimensional renderings, as well as a feeling for the mechanical resistance of different tissues while applying a virtual scalpel. This in part already existing hardware and software design of the "Visible Human" will be used in surgical training for the simulation of operations. The virtual "human" can be dissected and interactively manipulated at will, and subsequently its original form can always be per-fectly reconstructed. The real cuts are "healed" through the programs of visualization; they disappear as the regular structure of volume-elements in the new virtual image tissue. The imagery is open to all gazes or virtual instruments, from any spatial point, it can be turned around or opened, or even, as a complete expansion towards the visual, entered like a tunnel. The imagery that is thus produced turns the "data-body" inside out.



Practice is then possible on the individual. The data-set of the "Visible Human" can be linked to the specific data of a patient, thus enabling the simulation of a patient's body. This kind of computing, called "matching", is important since it allows a kind of representation that undermines the traditional distinction between a "model" and an "individual case." The "Visible Human, male" is male patient can be linked to the analyzed structure of this one virtual human and rendered according to his own specifications. In the surgical rooms of the future, the operation will be applied to the living patient with the same motions practiced in simulation.

In this light, the image definition of the "Visible Human Project" can be seen as a decoding and interpretation of information on human beings that was previously hidden in technical body-images. But not only can the structure of a digitized image now be analyzed and manipulated; the decoding of the image is itself seen as the blueprint of the object--of the human being--that can thus be diagnosed and manipulated. The surgery performed on this novel "body-image" is situated on a diffuse border between life and death, between the matter of a new imagery and the matter of the human body, namely within the concept of "information" --which now arrives at its technically precise meaning as a reference to a type of border.

31 32



"The 5th Dimensional Human"

These observations are intimately connected to the issues raised by one key lecture within both conferences, held by Colonel Richard M. Satava, one of the most renowned protagonists of tele-medicine and the implementation of Virtual Reality in medicine. In San Diego, he was introduced as the spiritual father of Virtual Medicine, and of these conferences. According to his biography, he now holds tenure as a Professor of Surgery at Yale University, following many years as a project manager at DARPA.

29 Prisma Magazin, 27.2.1996, N 3.

30 The current level of simulation moves such prognosis into the distant future. The simulation of mechanical attributes of the human body, such as natural motions or reactions to medical intervention, is qualitatively quite different from the simulation of processes on the level of the cell structure, such as in aging or the growth of a tumor. Even the approximate representation of the different attributes of mechanical tissue with all their tensions, resistances, etc. is still an unsolved problem, and the representation of cellular processes is not yet even remotely conceivable.

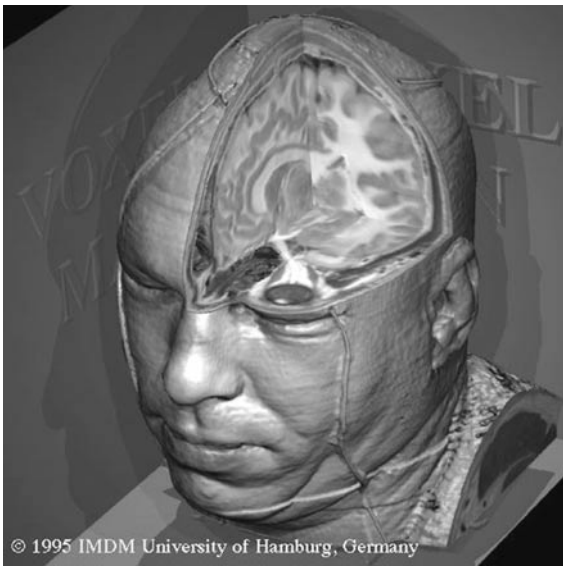
31 http://www.uke.uni-hamburg.de/Institutes/IMDM/IDV/VisibleHuman.html, (24.1.1996).

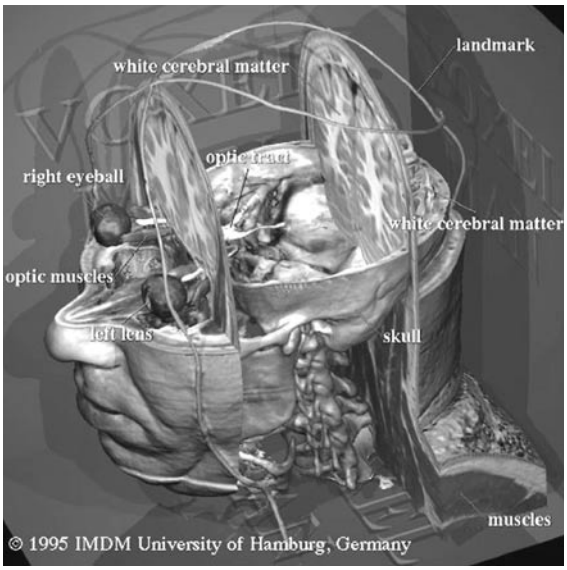
32 Ibid.

"During 20 years of military surgery, he has been an active flight surgeon, an Army astronaut candidate, MASH surgeon for the Grenada invasion, and a hospital commander during Desert Storm, all the while continuing a full-time clinical surgical practice. While striving to practice the complete discipline of surgery, he is aggressively pursuing the leading edge of advanced technologies to formulate the architecture for the next generation of Medicine: Medicine 2001."[33]

His lecture at the conference "NextMed" was entitled: "The 5th Dimensional Human: Integrating Physical, Biochemical and Informational Worlds." What is meant by this surprising introduction of a fifth dimension? Supplementing the three dimensions of geometrical space, and the fourth dimension, time, Satava introduced a fifth dimension, namely: "Information."

"It took a long time to get the right title here. (...) What's the fifth dimension? I was struggling to understand what the information age is all about. And as I looked around, there were four dimensions, the dimensions of space and time. And as we started building new information-based technologies, as I will show you, it became apparent to me that information, whatever information is, is actually a dimension. What do I mean by that? A dimension is something that you can, to a certain extent, measure, but when you work with it, it can make a difference in the real world. I can kind of measure time, but I can't feel it. To be in time or not makes a difference in the real world. As we start building a record on a medical avatar, there has to be another dimension. (...) That is, the information is contained within. In my case, it is within the human being. That is what we are calling the properties that make us people."[34]





39 40

Here we find a model illustration of what the superseding of "human beings" through "information" might mean. The "medical avatar" that Satava refers to will originate from the data-structure of the "Visible Human." The idea is not merely the generation of a model for the "human being," nor simply the reconstruction of the data of individuals. Instead, Satava is chasing a far more ambitious dream:

"The Visible Human is one of the cornerstones of a one million percent revolution in medicine. (...) If everyone develops their simulators from the Visible Human, then these things will be inter-operable. All you do is replace the Visible Human with your patient's own data. (...) It is no longer blood and guts; it is bits and bytes. It's like sending a letter or e-mail: with one you send the physical object, the atoms; with the other, you send the bits. You get the same information. (...) You will carry a little credit card that you put in a reader, and a hologram of your body will come up, replacing all of your medical records. The technology exists now."[35]

Is this really the case? Is this "information" really the same? Is the medical avatar identical to the patient to whom it refers? Satava ended his lecture with the declaration that many powers are working together towards the ultimate goal of creating a different world, a world consisting of "information" that will coexist with our real world and "enable us to do things we have never been able to do before."

What is envisioned here is a continual, immeasurable, complete registration of data that will be passed on to a control station. Data currents like those from the battlefields of the future will also flow from the everyday-life of all who are connected to this health-care-system, ceaselessly contributing to the final completion of the construction of this "world of information":

"You can build all these sensors into the bathroom and give everybody a physical examination every day. This data is about you, and it feeds back into your avatar--your own personal Visible Human."[36]

The automatic check-up in the bathroom of the future will be set in motion through sensors in the lavatory (analyzing excrement), in the mirror (diagnosing the eyes) or in the handle of your toothbrush (for measuring pulse and blood-pressure). Referring to a video-show[37] that demonstrated the body-image computed from the data-set of the "Visible Human", Satava explained:

33 Reader, NextMed: The End of Health Care?.
34 Author's audio-recording of Satava's lecture.
35 Michael Jennings, "Real Patients, Virtual Surgery," in: Life, February 1997, p.81.
36 Ibid.

42

43

The universal term of "information" crosses the border between life and death, representation and the represented, avatar and patient --in an absurd gesture that would like to eliminate this border itself. In Satava's slip of the tongue, even the border between healing and killing is surpassed. In the imminent world of "information", it will no longer be of any consequence.

Not only is the idea of the "human being" as it is, perhaps, today "still" conceivable, sacrificed, but so is the possibility of envisioning what the "human being" might signify in the context of this medical-technologically changed future. "Bio(r)Evolution" would consist in the following promise for the future of "our children": the death of Difference in the name of "living information." This, in essence, is the blatant lie paraded about by the military-medical complex at the conferences.

"What you are looking at here is bits and bytes. Zeros and ones. But it is also a living, breathing, caring human being. This may well be a way to introduce the future to you; this may be your medical record."[38]

"This is what you will look like" would be the logical consequence of this line of thought. In its euphoric gesture, this use of language has crossed a border. The world of "information" and the "real" world have been identified with each other. At this point, at the latest, the lecturer has forgotten that the data of the "Visible Human" originated from a death-row execution. "Adam" was conceived from the corpse of a convicted murderer. Obviously, the person who offered this data can no longer be alive. The idea of presenting all this as an image of "life," the advocacy of a world of the future that controls information from "living", as well as from dead, persons can only be interpreted as a Freudian slip - a slip which is augmented in a touching sort of way in his commentary of the video-show. Satava appealed to his listeners while motioning towards images of the three-dimensional reconstruction of the hand of the "Visible Human":

"Look here. Perhaps this is the hand of a surgeon. Look a bit closer. Perhaps you see the skill that went into that hand, when you go under the skin. All this must be embedded in the 5th-dimensional human. The challenge is clear: Take these technologies and build the future for our children."[41]

This slip that I would like to perceive as pertaining to the military-medical complex culminates in the comparison of the hand of a murderer with the hand of a surgeon perhaps even with Satava's own hand. This cannot have happened consciously; it must be an accident, an unconscious mistake. And yet, the terrifying message remains the same.

Question of gender

You may wonder why I didn't refer to the question of gender in relation to this vision of a future informational world. As I learned during the 7th conference Medicine Meets Virtual Reality in San Francisco, with one section of the program called: 'Women and virtual reality', the question of gender indeed is no one, is nothing in this future informational world designed by men like Dr. Rick Satava. As the following notice indicates even the imaging of the female anatomy which one might call a question of sex - is not a question of general interest. One speaker, Hedvig Hricak, Chief of the Abdominal Imaging Section in the Department of Radiology, at the University of California, San Francisco, pointed out, that the usual imaging techniques for gynecological images, the Ultrasound picture is not as precise as it should be. The Magnetic Resonance Imaging technologies very often would be the necessary choice for the diagnosis of women. But this technology is more expensive and health insurances still do not want to pay the costs, even if costs of MRI are dramatically decreasing, as machines have become much faster. She pointed out that it should not be accepted that women are not treated with the existing advanced medical technology - available almost in every hospital. There was a silence after she ended her lecture. Then Dr. Rick Satava (some minutes ago still struggling for the information age on the future battlefields) headed towards the microphone and posed one question. He said: "But who shall pay this? (...) Can you give us some hope, Mrs. Hricak?"[44] This was the only question adressed to this issue of imaging women's bodies.

37 The video showed Alexander Tsiara's visualization of the data of the Visible Human Male; see: BodyVoyage, A Three-Dimensional Tour of a Real Human Body, CD-ROM, Time Warner Electronic Publishing, New York 1997.
38 Author's audio-recording of Satava's lecture.
39 http://www.uke.uni-hamburg.de/institute/imdm/idv/visible/visiblehuman_head.en.html#images, (1.4.1999).
40 Ibid.
41 Author's audio-recording of Satava's lecture.
42 Reconstruction of the "Visible Human" by Alexander Tsiaras. Cf.: BodyVoyage CD-ROM, op. cit.
43 http://aaron.ou.edu/satava.html, (24.1.1996).
44 Author's audio-recording of Hricak's lecture.

Pam Skelton

Questions of Identities

'Remaking Eden'
Cloning and Beyond in a Brave New World

'Remaking Eden' Cloning and Beyond in a Brave New World was a public forum held at the Fruitmarket Gallery, Edinburgh in January 1998. I had been invited onto the panel as an 'artist,' one of a team of 'experts' brought together to explore 'some of the myths, dilemmas and possibilities around the subject of cloning and genetics'. [1] My invitation had been prompted by *The X Mark of Dora Newman* and *As Private as the Law* installations which touched upon issues relating to histories and genealogies but also to genetics and eugenics. The work therefore, could be seen as situating the human subject within a historical context rather than merely a series of generalisations or programming codes. The event was organised by Marc Lambert the Interpretation Officer at the Fruitmarket Gallery and initiated by the recent publication of Professor Lee M. Silver's book *Remaking Eden, Cloning and Beyond in a Brave New World* which aptly coincided with the news of the successful cloning of Dolly the sheep. [2] Also taking part were Harry Griffin, the Assistant Director of the Roslin Institute, Edinburgh, the institute responsible for cloning Dolly, Lee Silver the author of the book mentioned above, John Haldane, professor of Moral Philosophy who sits on the Nuffield Working Party on Genetics and Mental Disorder, and James McLean the convenor of the Intellectual Property Committee of the Law Society. This all male cast of scientific commentators and experts gave me the opportunity to further speculate on issues relating to art, science, ethics and their impact on everyday life. It also encouraged me to take into account current debates which acknowledge the flows which link local and global interests, patterns of production and consumption, reproduction and biotechnology, science and art.

Lee Silver's futuristic scenario is not supposed to be science fiction, rather it is intended as a comprehensive scientific projection of what the future is likely to hold. Writing about a market dominated America where choice is extended to enhance a variety of reproduction possibilities Silver describes a domestic utopia where designer babies, shared genetic motherhood, and clones are all within reach for the professional classes. This is an America where well off families will be able to afford genetic implants which will protect them from the AIDS virus and new classes of society have been forged. By the 23rd century racial and class differences will have become obsolete and people will belong to one of two social classes, either the socially elevated 'genetically enriched' or the 'Naturals', comprising of the majority of the worlds population who do not want, or cannot afford genetic enhancement. The final sequel in this chain of events is the polarisation of the groups, their genetic incompatibility and eventually their branching out into separate species.

In this short essay I would like to briefly sketch some connections and disconnection's which can be made in relationship to modern and postmodern 'truths'. I would tentatively like to situate the reader between and within the transitional spaces which connect the so called Machine Age and the so called Information Age; an emerging space of becoming, yet a space still lingering in the not quite aftermath of industrialistion and the not yet pinnacle of globalisation. Since the advent of photography, questions of authenticity, the original and the copy have been associated with the reproduction of images and their dissemination of art and information to the masses. As the twentieth century draws to a close questions relating to authenticity and the original are increasingly irrelevant, and the very idea of dissemination of information and communication is much more pertinent to the growth of a global economy where place has been all but superseded in favour of space and flows. Back in the modernist era of 1936 the German art critic Walter Benjamin in his seminal essay 'Art in the Age of Mechanical Reproduction' understood the complexity which would accompany the loss of the aura of an original artwork in mass production as potentially revolutionary. In the age of mechanical reproduction the aura would wither away. At the same time he believed that the loss of aura was crucial in liberating the unique, the authentic art work from its ritualistic roots which were embedded in tradition. [3]

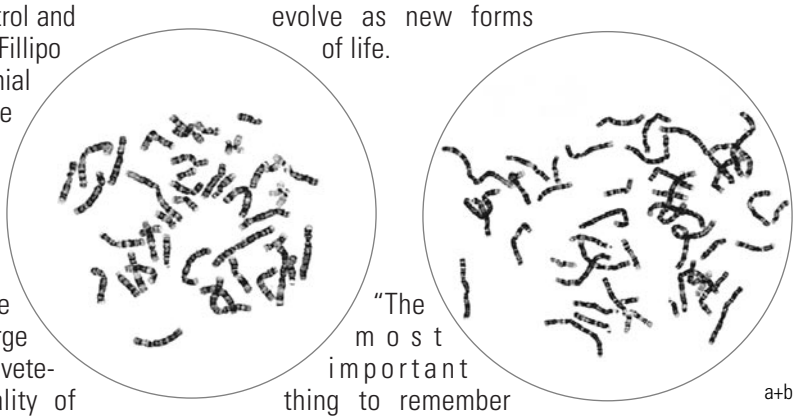
"The technique of reproduction detaches the reproduced object from the domain of tradition. By making many reproductions it substitutes a plurality of copies for a unique existence... To an ever greater degree the work of art reproduced becomes the work of art designed for reproducibility. From a photographic negative, for example, one can make any number of prints; to ask for the "authentic" print makes no sense. But the instant the criterion of authenticity ceases to be applicable to artistic production, the total function of art is reversed. Instead of being based on ritual, it begins to be based on another practice --*politics*".(my italics) [4]

First published in 1947 Theodor Adorno and Max Horkheimers critiques the 'culture industry' and commodity culture in 'The Culture Industry; Enlightenment as Mass Deception' [5] provides an alternative vision to Benjamin's revolutionary avant-garde. For Adorno the concept of the

aura is not entirely erased by the culture industry rather the decaying aura is conserved as a foggy mist. Adorno and Horkheimer understand cultural production as an integrated component of the capitalist economy which is not only repressive, but ultimately standardises and homogenises cultural practices.[6]

Examples of the elevation of the body as a synthetic/organic instrument can be drawn from numerous sources throughout the twentieth century which illustrate the artists reoccurring obsession with immortality, control and the enhanced human body. The Italian Futurist Fillipo Marinetti in his manifesto on the Ethiopian colonial war demonstrated his power crazed fantasies of the cyborg body " …war is beautiful because it initiates the dreamt of metalisation of the human body", and in his Technical Manifesto of Futurist Literature of 11 May 1912 he writes "Through intuition we will conquer the seemingly unconquerable hostility that separates the human flesh from the metal of motors". On the other side of the coin George Gros's political paintings and cartoons of disfigured veterans of the World War One, provide the reality of Marinetti's fantasy, the veterans their faces glued together with bits of metal provide chilling evidence of the abusive power of governments and business men in perpetrating war, poverty and unemployment. More recently the French performance artist Orlan has questioned the status of the body and the future possibilities of genetic interventions while remaking herself through undergoing plastic surgery and documenting operations on video while the Australian born artist Stelarc uses robotic contraptions which extend and explore the human body. In his recent works sensors connected to his body are linked to the Internet through a computer allowing users to trigger movements from a tactile screen or with a computer command. For Stelarc, the human body is dead meat with the capacity to evolve.

The mistrust of politics in the post-communist era and the propagation of world markets and global economies signals a new world order in which the Machine Age with its foundation of local and national manufacturing industries is in the process of transmogrifying into the so called Information Age where capital is fluid and transglobal. Computer sciences and information technologies have created exciting new possibilities which will further stretch and problematise our understanding of time and space, the material and the virtual, of life itself. For example the dynamics of artificial life, has been enthusiastically explored since 1988 at conferences held at The Santa Fe Institute of Linear Dynamics by groups of interdisciplinary scientists commonly known as Alifers influenced by non-linear dynamics and complexity theory. [7] Within scientific/design communities such as these the computer programmers, biologists, roboticists, mathematicians and animators argue that life can exist in other material forms than carbon, the building block of organic life. The aim of Alifer's is therefore to create and engineer virtual worlds where silicon genes can reproduce, and organise with the ultimate goal of eventually stumbling across or into evolution. The computer is understood in this instance as an alternative environment to the organic body, a new home where self-organising systems can evolve as new forms of life.



a+b

"The most important thing to remember about a-life is that the part that is artificial is not the life but the materials. Real things happen. We observe real phenomena. It is real life in an artificial medium." [8]
At the same time the body is no longer in its holistic sense the central discourse of biologists. The body is now understood as a programme which can be known only through the study of the massive system of signs which it is composed of. It is a map to be deciphered, a system of biological codes to be read. The Human Genome Project is an international data base project which is set up to do just this. It's aim is to identify each gene in the human body. The Human Genome Project is an ambitious effort to understand the hereditary instructions that make each of us unique. The goal of this effort is to find the location of the 100,000 or so human genes and to read the entire genetic script, all 3 billion bits of information, by the year 20005'...[9]

c

The script in question is the human genome and it can be read as if it were a book, on this scale it is a gigantic library. It is as we know a map which will be able to be read in the absence of the material or physical body. Today we are still more used to using a map to help find a route between two points, but maps hold many more possibilities scientists are now in the process of deciphering the genetic foundations of the biological body. Tomorrow they will be very interested in interpreting it. To understand such a complex sign system as the human genome also means that the aim is eventually to intervene in this massive structure.
With this information complete the data gathered by this project will provide medical investigators with the means to determine the function of the genes and develop tools for biological and medical applications. [10]

In contrast, the 19th century body to be programmed can be historically located in the rationalising and determining

practices which were fashionable at that time. The practice of observing the distinguishing features, physical and mental characteristics of individuals was a phenomenon which sought to make bodies conform to considerations of measurement and classification. Pathological conditions, such as hysteria in women were documented as evidence of scientific 'qualification and explanation, and racial hygiene was justified by Social Darwinists as the 'need for scientific management in the new industrialised nations. Francis Galton who in 1883 coined the name eugenics meaning wellborn implied selective breeding for racial perfection. [11]

d+e

The criteria used for the selection of the perfect human subject was western aesthetics which defined a series of preferred standards and norms. Zygmunt Bauman in his book *Modernism and the Holocaust*[12] uses the analogy of the gardener who selects his stock and plants his garden while all the time removing the prolific and unwanted elements which are commonly known as weeds. The analogy of the gardener designing his stock can also be understood as social Darwinism, a means of controlling natural selection. Social control is ultimately what is at stake in projects such as the Human Genome Project and it is precisely because of this that since its inception it has used 5% of its budget to research into ethical and legal issues. Nevertheless, when individuals are categorised as codes, numbers digits or genes the human subject she/he or we is in danger of being reduced from subject to object.

Like the old new technologies new genetics offer enormous possibilities for redefining the quality and possibly even the duration of life, but in evaluating the benefits of this new knowledge it is crucial to recognise its dangers. The new genetics could be seen as a paradigm of the first world to increase wealth and power for its own members, not to ensure global equity but to create an ever widening gulf between rich and poor, desirable and undesirable. The body as programme and in the hands of the biotech industries a commodity, foregrounds the economic power of the biotech industries which have already attempted to patent human genes. In fact recently Iceland has decided to sell the rights of the entire population's genetic code to a biotech company! [13]

Zones, As Private as the Law

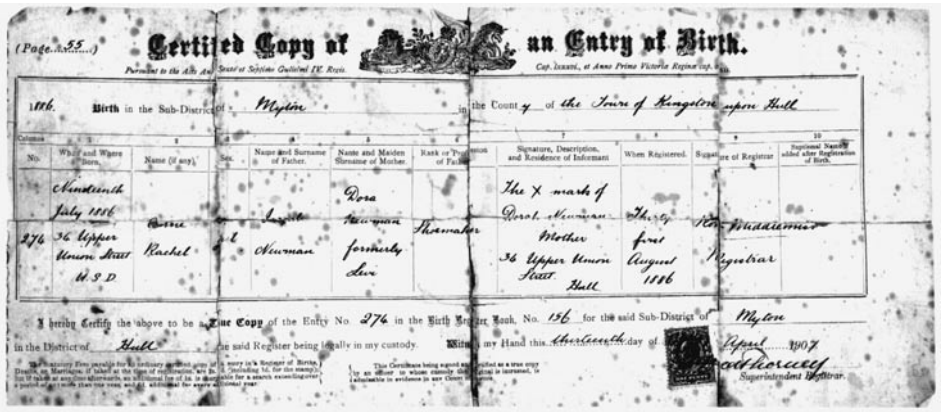
It was my intention to elaborate on a subject rather than to diminish her that led to my working with images of chromosomes. To suggest a subject in the absence of an image was a defining consideration in the search for representation. The image which did not exist was the image of my great grandmother Dora Newman an immigrant to Britain in the final quarter of the nineteenth century. No photograph of her appeared to exist, nor did a portrait etched into my memory via my grandmother's memory. Dora Newman, her husband Isaac, her children and her community were absent spaces waiting to be embodied.

In *Zones, As Private as the Law* and *The X Mark of Dora Newman* the chromosome is used not to elevate or diminish the biological in relationship to the human subject, rather it is used as another sign or means to map the body. To map the body is not necessarily a value free enquiry though. The chromosome is a sign which is loaded with meaning and information, a sign which is highly specific to the individual donor while at the same time representative of the species Homo Sapien. The building blocks of life DNA are receptors of memory and replicatiors of memory. The chromosome is packed with inherited material and may refer to difference within and across social and historical spaces.

The chromosome on the other hand is a receptacle containing the codes of biological data which in this instance makes up the human genome. A set of human chromosomes are made up of strands of DNA which under certain circumstances are organised spatially as forty six chromosomes divided into twenty two pairs with an additional two x chromosomes constituting a female or an x and a y chromosome constituting a male. These pairs are made up from one chromosome inherited from the mother and one from the father. In art as in life the understanding of a sign changes in relationship to the context within which it is placed. For example in *The X Mark of Dora Newman* the X chromosome and the X mark inscribed on to the birth certificate is both the anonymity and the embodiment of Dora who has been apparently situated outside of language and outside of representation. The fact is that she signed her daughters birth certificate in 1886 with a X, the assumption being that she was illiterate. However, as the X mark is the only remaining sign which bears witness to Dora Newman the status or rather lack of status of the female subject in this instance comes into question as a defining factor.

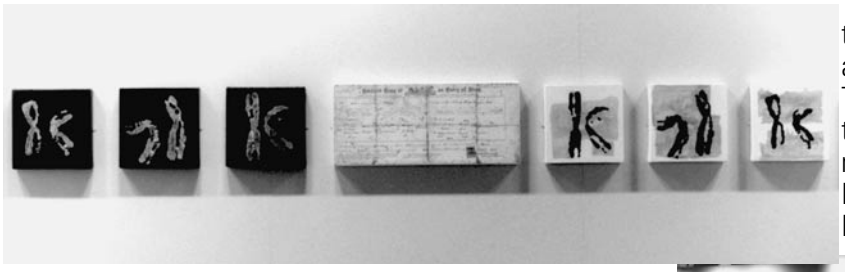
The chromosome paintings attempt a constructive investigation rather than a reductive one. My intention was rather to open up possible routes which may begin to approach the genealogies and geographies of actual and hypothetical Jewish migrants from whom I am descended. Time, memory, place and space are the ingredients of

histories and geographies and they are also the receptacles of stories, desires, tragedies and everyday life. The biological code is indeed a transmitter of information, it can even be seen as a portrait. It is, however only a fraction of the story, there are others such as the scantily documented experiences of Jewish migrants who (by the late 1850's) travelled the recognised and established route from Eastern Europe to America. They travelled by rail from Eastern Europe to Hamburg and from there many embarked in the port of Hull, on the coast of north East England, a place many mistook for America. These newcomers escaping anti-Semitism in Eastern Europe arrived in great numbers into cities such as London, Leeds, Hull, Manchester, Liverpool and Birmingham until immigration slowed down after the implementation of the Aliens Act of 1905. [14]


Certified Copy of an Entry of Birth.

f

The 1905 Aliens Act in Britain at the time referred to the Jewish immigrant, everyone knew who the Act addressed. Yet, tragically, after a century of nationalist and racist hatred the oppression of the 'other' the 'alien' the 'jew' [15] shows no sign of abating. It is even argued that globalisation is promoting yet another totalitarian era fuelled by deep seated resentments and insecurities which erupt as extreme forms of fundamentalism and nationalism. [16]



g

h

In today's global landscape where difference is only a marketing variation there is the realisation that we are rapidly moving headlong towards monocultures. At the same time, projects like the Human Genome Project have launched new bodies of knowledge, which beg a number of questions and raise moral and ethical issues. The goal of this initiative as Paul Rabinow has pointed out is 'thoroughly a modern one' and distances the new genetics from earlier eugenic programs fundamentally from the position that eugenics was never a scientific practice, although it was often practised by respectable people. Perhaps the most revolutionary component of the new genetics is that 'nature will be known and remade through technique and will finally become artificial, just as culture becomes natural'. [17] The new genetics and its global associate the biotechnology industry will be instrumental in forging new paradigms of knowledge and power which can then be articulated and analysed by experts in the fields of bioethics and environmental ethics, which brings me back to Remaking Eden.

Images

a, b, c: Chromosomes
d: Installation „As private as the Law, Pam Skelton, view
e: Installation „As private as the Law, Pam Skelton, detail, 30x30cm
f: Birth Certificate of Dora Newman
g, h: Installation „The X Mark of Dora Newman", Pam Selton, view

References

1. Silver, Lee M., Harry Griffin, Skelton, Pam McLean, James Haldane, John, Remaking Eden
Cloning and Beyond in a Brave New World, Forum 2 (Fruitmarket Gallery, Edinburgh 1998)
2. Lee Silver, Remaking Eden: Cloning and Beyond in a Brave New World, (Weidenfeld & Nicholson, 1998)
3. Benjamin, Walter 'Art in the Age of Mechanical Reproduction'. Iluminations, (Schocken Books 1968) pp.217-251
4. cited in 'Art in the Age of Mechanical Reproduction' p.224
5. Adorno, Theordor W. and Horkheimer, Max Dialectic of Enlightenment translated by Cummings, John (London, Allen Lane 1973)
6. Adorno, Theodor W. The Culture Industry Selected esssays on mass culture (ed) Berstein J.M. (Routledge 1991) p.88
7. Penny, Simon, 'The Dawin Machine: Artificial Life and Interactive Art' in New Formation, 'Technoscience' (Lawrence & Wishart, London no.29 Summer 1996) p.59
8. Kelly, Kevin Out of Control (Fourth Estate, London 1994) page 447-448
9. From Maps to Medicine:About the Human Genome Reseach Project: www.nhgri.nih.gov/Policy_a…tions/Maps _to_medicine/about.htm1
10. See Mapping and Sequencing the Human Genome http:/www.orn.1.gov/hgmis/pubicat/primer/prim2.htm1
11. Marchessault, Janine The Secret of Life: Informatics and the Popular Discourse of the Life Code New Formation, 'Technoscience' (Lawrence & Wishart, London no.29 Summer 1996) pp.120-129
12. Bauman, Zygmunt in his book 'Modernism and the Holocaust'
13. Iceland Parliment Sells Rights to Genetic Code Washington Post 1999
14. See Lipman, VD, A History of the Jews in Britain since 1858 Leicester University Press 1990 pp.12-14 Also see Gartner, Lloyd P. The Jewish Immigrant in England 1870 -1914 George Allen and Unwin Ltd (UK) 1960 pp.24 -56
15. In placing the word "jews" in plural, lower case and quotation marks Lyotard in his essay Heidegger and "the jews" represents the outsider, the oppressed the artist and the nonconformist. Lyotard Jean-Francois, Heidegger and "the jews" translated by Michel, Andreas and Roberts, Mark (University of Minnesota Press 1990)
16. Shiva, Vandana, 'The Two Fascisms' The Ecologist Volume 29 No3 May/June 1999
17. Rabinow, Paul 'Artificiality and Enlightenment' Incorporations (ed) Crary, Jonathan and Kwinter, Sanford (Zone MIT Press 1992) p. 242]

Ursula Biemann

Performing the Border

If cyberfeminism focuses on women and technology, if it's located at the interface between inside and outside cyberspace, examins our relation to bio-technology, new media and other forms of communication, without losing sight of the relations of power and production, well, if this is cyberfeminism, it is the lens through which we need to look at a site like the US-Mexican border. Because this is where the feminization of global economy and the digital industry is particularly striking.

In artificial post-urban industrial parks which stretch over large desert areas, the US corporations assemble their electronic equipment for the communications industry... you know, the capital intensive operations remain in the North, the labor intensive operations are located South of the border. For a number of reasons, the assembly plants drew mainly young women into their labor force. Every day hundreds of women arrive in Ciudad Juarez, which is right across the Rio Grande from El Paso Texas. These women make up the large majority of the population of the border town. They have created new living spaces, enjoy their own entertainment culture. They have changed social structures and gender relations. They are the producers of the machines that enable cyberspace. They are the new members subscribed to transnational citizenship that will afford mobility and the freedom to consume, not for themselves, but for millions of others North of the border.

In the 10 years since my first visit to Juarez in 1988, my personal outlook has changed and the discourse has changed as well, I mean both the feminist and the post-colonial discourse of cultural production. In recent years, we have come to recognize a need to combine identity politics with the context of wider transformations of the public sphere, particularly the urban reality. It has become vital to scan the economic, industrial, and increasingly the virtual realities for discursive genderspecific constructions. Moreover, the entanglement between the female body and technology and image production has produced the rich theoretical debate and artistic work of cyberfeminism in which I have become increasingly involved.

In the following, I want to discuss the sexualisation of the border and the discursive as well as existential aspects that determine the lives of the border women. I will focus on the way gender relations are being regulated in this zone created by the outsourced digital industry, on the job, in the sex work, and the public sphere where sexual violence has persisted for five years. In the discussion of the serial killings, the key border issues of identity, sexualisation, accelerated industrialization, and the particular technologies associated with the maquiladora industry, converge violently. There is no reason to naturalize the border, it is a place constructed through the power relations between the two nations, through gender relations and the management of these gender relations by means of time management, control over body and reproduction, work regulations, and fear.

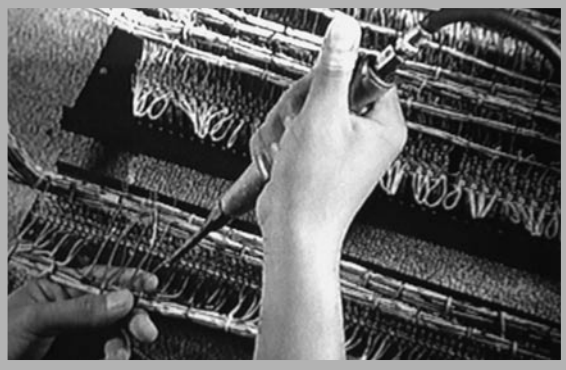
La Frontera

A lot is to be said about the border itself and about crossing the border. It is a very heterogeneous space. The question is: are you crossing in English, in Spanish, in Spanglish, are you jumping or passing with a US passport, as a tourist, a middle class woman or a domestica, a maid. As Berta Jottar says in the video, the border gets constantly rearticulated through the different ways of crossing and through the power relations that the crossing produces.(1) It is also determined by the relationship of power between the two nation states and the representation they generate about it. The US representation constructs the border as a site of contamination through AIDS, delinquency, poverty and illegality. Since NAFTA (North American Free Trade Agreement), the US media complement this image with a happy neighbor mentality of good business partners and the free travelling of goods. Goods may travel freely but the people are kept from passing. In the Mexican representation of the border, on the other hand, is is the site of drugs, crime and prostitution, things getting out of control. It is no coincidence that parallel to NAFTA, we register the military enforcement of the border through the installation of lights, the mining of the US borderland, a tripled border control, helicopter patrols, INS officers, drug enforcement officers and the military presence.

The representation of the crossing bodies is gendered. The media focuses on the representation of the illegal working class male who takes away jobs. Berta Jottar explains that women, in the particular the female maquiladora workers, are not a part of this representation at all, they only appear when they cross the border to give birth on the US side and want to benefit from health care and natal care, that she is not represented as productive, only as reproductive and dependent. So Berta looks at the discursive representational space and at the material space which is constituted through the crossing and the halting of people, as performative. Hence the title of the video.

La Colonia

Typically, young women, and I mean 13, 14, 15 year old, leave their family to travel long distances to work on the border. Leaving behind the towns of Zacatecas, Durango, Torreon on the arid central plateau, to move up to the Rio Grande. They are the hope of those they left behind. Often they come in small groups of 3 or 4 girls of the same age and the same town. Upon their arrival, they will find no accommodation, for the city doesn't provide any. Municipal investments are only made for the transnationals, not for the people who work for them. So they go to the edge of town which spreads way into the Sierra, they choose a vacant spot and build a shack right into the desert sand. From scraps of the maquiladoras. The pallets will make the walls, the chemical containers the water tank etc. There are large areas like this where mainly women live, streets of sand, no street lights, no public transportation, no security. There seems to be little demarcation between the sierra and the area they call urban. It's considered urban though, a forgotten area, development doesn't get here. For many, living in the city still means a rural lifestyle.
Some people call this procedure „invasion" because the migrants take a piece of land and settle down, waiting for more official papers for their houses. It's an irregular but inevitable way to obtain housing.



La Maquiladora

Since the seventies, the US has installed an export processing zone for its assembly operations in the border belt. Within short, the maquiladoras--the Golden Mills--introduced a new technological culture of repetition, registration and controlling to this desert city. It is a synthetic zone from which life emerges, nevertheless, an alien way of life: corporate culture in the morning, kneading el maíz at night, the rhythms of the barren highland give way to optimized production modes. Life on the border teaches you to cope with contradictions, to operate in a pluralistic mode because flexibility is a matter of survival when you are among the extras on the set of corporate culture.

PTH/SMT Board Level Assembly
Mil-Spec and Avionics
Plast Injection Molding
Electrostatic Powder Coating
Ionic Contamination Testing
Systems-Integration
Electromechanical
Harness Assemblies
Cyber Optics

Assembly lines represent the ultimate fragmentation of labor into its smallest possible particles. Assembly work in the chip industry is repetitive, tedious work, pulling out semi-conductors in endless sequence. Strapped to the worker's wrist is a pink curled cable with an electromagnetic discharge needle, linking the female body to the workbench. They keep the device around their arm on weekends of fear to forget to bring it on Monday morning. The workers are organized into self-surveying teams that don't allow slow-downs or breaks, the system flows forever onward. Forced birth control and pregnancy tests are on the daily agenda, pregnant women get fired immediately. The constant chemical exposure are a serious health hazard, strict surveillance and restrictions to use the bathroom cause chronic bladder infections. Children are left to themselves because there are no day nurseries. I think we are all aware of these conditions.

Time management has always been a very efficient means of control: Walk one hour to the bus at 4:30 am, take a one hour bus ride to the maquila, spend 9 hours on the assem-

bly line, same way back. No time to live, no time to think, no time to organize . The excruciating time investment of these women benefits the technology that accelerates our lives in the North, they pay with their time for our hightened efficiency.

Labor organization is strictly prohibited. Factories establish black lists with names of people who are „enemies" of the maquila, computer networks interconnect the entire industrial zone, if a factory fires you, there is no chance to get work anywhere else. Black lists of this sort are prohibited by law. A unionist told me that they got fired for wanting a cafeteria because their factory was located outside the industrial park and there was no place for lunch for several hundred workers. We are not even talking about forming a union, about wage policies, health hazards or human rights. Women are afraid to lose their jobs for the slightest disobedience and never find another one again. The maquiladora program is a strategic point in the economy for the Mexican government, they look well after the maquilas' interests. We can assume that the US militarisation is not merely keeping illegals from crossing the border it is also to protect the gigantic US industrial investment on Mexican territory. In the face of serious transnational interests, local labor organizations are no longer adequate. Guillermina Villalva Valdez, a leading labor activist and academic, who was extremely supportive during my first visit to Juarez, has died in a plane crash on her way to Texas in 1996, together with 4 other key figures of the labor movement. The small plane exploded in mid air, due to a bomb presumably.

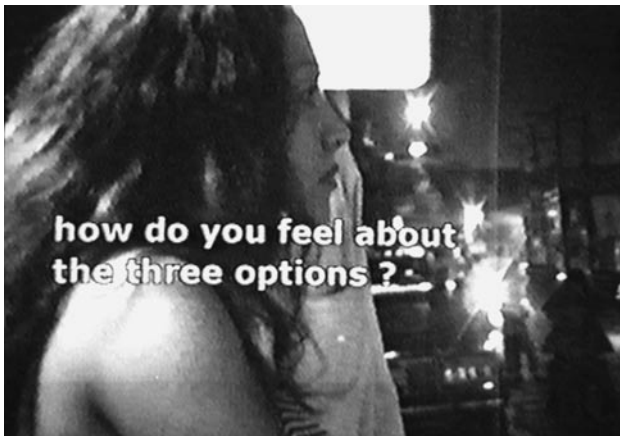
Maquiladoras have served as a laboratory for deregulation. The main incentives for the transnationals to move to the border are the wages paid in local currency and tax exemption. However, the wages are not sufficient to subsist, not for one young person, let alone for the rest of the family who often depends on it. A maquila woman earns US$ 50 a week while the living expenses are only half of what they are in the US. These are the conditions under which digital technology is being produced in the name of progress for the information society. As always, progress is not being shared with those who produce it.

Sexualising the Territory

The insufficient salary forces many women to have a supplementary income on weekends from prostitution. But now, with the radical closure of the border and the military enforcement of it, there are a lot less US customers coming and less Mexicans who cross the border for work and come back to spend their dollars in Juarez. Competition has grown between professional prostitutes and the younger, often adolescent maquila workers who prostitute on weekends, but still need the insufficient factory wage for their children's security.

Thousands of assembly jobs have been brought to this desert city and women are the ones who get them. Often they are the only earning family member. These changes in the income pattern had an impact on family structures and on the way women relate to men, since these relations are greatly determined by economics. They have gained greater autonomy over their lives. You cannot tell a girl or a women who earns her money, that she cannot go and dance in the many nocturnal centers that have emerged since the maquila industry. There are several hundreds bars and dance saloons in Juarez. On Friday and Saturday at 4 PM, after the women leave the

morning shift, they are open for business.
Relationship patterns are being remapped quite drastically. In the dance halls, the shift of buying power to young women is obvious. The entertainment is mainly catering to female customers with shows of male strippers and male dance contests where women cheer their sex-appeal. On a more subtle level, the music lyrics on the dance floor are often explicitly addressing female sexual desires.



The border is a highly gendered region

Structurally speaking, there are three options young women have in Juarez: either she becomes a maquila worker, if she is not accepted at the factory because of a lack of education, she can become a „domestica" and work as a maid in a private house, and if she can't produce a recommendation for such a position, she has only one more option, prostitution. I can't help noticing that these are all very service oriented occupations. But the rule in Juarez is that, against Mexican tradition, young women are, to a great extent, economically autonomous and this shift is being inscribed in the social relations on a deeper level.

International labor in the South is not only feminized. Economic power relations along the line of gender difference are spelled out in sexual terms in more than one way. On the job, male supervisors are known to abuse their position to harass women workers. The corporations organize beauty contests to put the female workers in competition to each other. The low wages force women into prostitution. And there is a rampant sexual violence against women in the public sphere. On the other hand, there is a certain reversal of income pattern that empowers women in their personal relationships, enables their overt expression of sexual desire and affords the satisfaction of these desires by economic means rather than by other, more traditional services in the area of domestic and emotional reproduction through the caretaking of home and children. It's a highly ambiguous and precarious situation for young women.

Serial Killing

The serial killings are somewhat related to this phenomenon. Since 1995, close to 160 women have been killed in a similar pattern: Tortured, raped, stabbed or strangled and thrown into the desert. The type of women is always the same: poor, slender maquila women, rarely students, with long dark hair. Often they have just moved to the city and nobody claims them: 50 women are lying in the morgue unidentified.

Some small women organizations have been formed as a result. Most of them interpret it as violence against women, as a revenge of men against women who took their jobs and have started to talk back at them, go to dance halls and challenge gender roles. A punishment. And the fact that the police didn't bother to investigate the crimes is just another sign of male consent to this sce-nario. So feminists and human rights advocates took it onto themselves to investigate the cases and establish a list of disappeared women to prove that the cases are too similar to possibly be individual crimes of passion. These groups recognize, however, that some cases are ordinary domestic violence disguised as one of the serial kills, cases of imitation. They also understand that extreme poverty, lack of education, and economic subjugation are all preparing the ground for a criminal to come to the city and commit crimes. The US criminologist Robert Kessler who was invited to analyse the case in Juarez during my visit, would also mention drug traffic, gangs, migration, quick money and prostitution as further conditions for these crimes, similar to any major metropolis in the States.

But Juarez is, apart from the widely spread out migration settlements, a small border town and serial killing is not an ordinary crime of passion. Plus, the murders in Juarez is the largest case of serial killings known just about anywhere in the world. Generic explanations just seemed too easy. During my research on serial killings, I came across a recently published cultural study by Marc Seltzer who makes connections between sexual violence and mass technologies proper to a machine culture. Eventhough he never mentions this unresolved case, the similarities of his analysis to Juarez interested me, particularly his mention of technologies of identification, registration and simulation which correspond to the particular psychological disposition of serial killers. According to his extensive research of analysed cases of serial sexual violence, a common psychological denominator seems to be the undoing of identity to the point of becoming a non-person, the desire to blend into his social and physical environment, to fuse with the mass. He tends to simulate and copy others, he experiences identity, his own and others, as a matter of

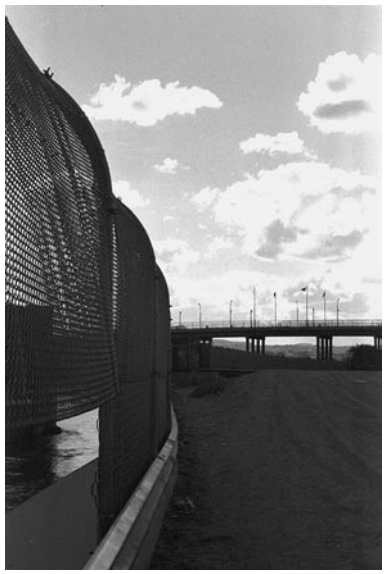
numbers, of simulation and likeness. He fails to distinguish himself from others and this lack of self-distinction, of self-difference, is immediately translated into violence along the line of sexual difference, the one fundamental difference he recognizes. I found this notion of exchangeability confirmed in a number of stories I was being told in Juarez about murdered women who were found wearing the clothes of other women who had disappeared. In several instances he exchanged the clothes of the corpses, somehow confusing the marks of recognition and identification.

Of course one could argue that there are practical considerations like the great number of young women in the border town who make for an easy prey, that would attract a killer. But the possibility that the serial crimes reflect and reproduce the border conditions installed by the maquiladoras with their repetitive mode of producing for the simulated and mediated existences of digital culture, is worth considering. In addition, the border site is surveyed by the technology of electronic border control, of registration and identification and digital fingerprints. Even if we can't prove a causal relation, we cannot deny the simultaneity of these embodiments. When we look at the crimes in discursive terms, as I suggest here, and understand them as an urban pathology brought by a highly accelerated industrialization and modernization, rather than accusing an individual psychopath, we start to recognize the implication of the post-industrial world in the deeply disturbing changes that are taking place on the border and the impact they have on the lives of Mexican women.

There is another psychological configuration that brings the serial killer in connection with this particular site. Losing the boundaries between the self and others, he is perpetually in search of some border. He is attracted by the actual border of his country precisely because it signifies the boundary of a larger entity of belonging, the nation. There is more than one reported case where this occurred. Going to the border becomes the physical expression of his mental extremity, merging his physical body with the national body, confusing the inside and outside, the public and private.

What is at issue with sexual violence is always the public/private. The official discourse runs along the lines of accusing the victim of provoking violence and thus transferring a public phenomenon into the personal sphere. When showing the crime in the evening news, it would not be surprising to see the body of the victim, a portrait of the victim when she was alive, the name of the family members and all kinds of personal information. The factory would never be named where she worked. The industry doesn't want to be associated with the crimes even though many of the victims worked for Philips, for instance. On the juridical level she has no rights and on the representational level she is has no rights.

The border is an issue of representation, but at the moment of performance, the reality is that it's young Mexican women who assemble the digital technology, that their time and their body, down to the monthly cycle, are strictly controlled by the white male management, that in this economy, prostitution is a necessity for many, and that sexual violence characterizes the public sphere. The video <performing the border> is an attempt to bring together the border as a discursive, representational space and as a material space which is constituted through the performance of gender and the management of these gender relations.



[All images are screen-shots from the video <performing the border> by Ursula Biemann © 1999, 42']

(1) Berta Jottar is a Mexican artist and academic who lives in New York. She was involved in the Border Art Workshop in Tijuana, made a video entitled Border Swing and presently works on Cuban Rumba in New York.
(2) Mark Seltzer, Serial Killers - Death and Life in America's Wound Culture (Routledge, 1998)

Cornelia Sollfrank

Women Hackers

Today the net has become a virtual, real and omnipresent part of life. Those who are not on-line find themselves confronted with www-addresses everywhere, with advertisements for IT-technologies in TV commercials and on billboards. They feel surrounded by this new, mysterious presence. And this pervasive image carries the message that life will be better thanks to the high-speed information highway. We will all work and learn more effectively, consume better and cheaper products, get better medical care, have more interesting friends and more fulfilling love-stories when we are on-line. But there is also a dark side to this glittering promise: the exploitation of third-world labour, the monopolisation of software, the globalization of economies, comprehensive information control and surveillance, and the cyborgization of our bodies. Both technophilia and technophobia flourish, creating an ever-growing gap. It is there, within that gap, instigated by the insiders--the developers and users of technology--that a politically motivated, constructive critique could and should take place. Within that specialized company there is one notable cultural environment which can be located and defined--the hacker scene.

What is a hacker?

Before going further I think it is necessary to take a closer look at the meaning of the term "hacker". A clear definition is difficult because the word has changed since it came into existence, and also because of the discrepancy between the hackers' self-image (self-definition), and the public image (mostly defined by the media). When the term was invented in the 60s at MIT, it was definitely an honourable title. Hackers were known for their resourcefulness and their persistence in solving software-related problems. The first hackers created the 'hacker ethics' (as described in Stephen Levy's book "Hackers", 1984) which was based on the idea of freedom of information and respect for other peoples' data. But due to some spectacular hacks in the 80s and their subsequent representation in the media, the term hacker today has a negative image and criminal connotations. Today, hackers are fighting this negative conception by referring back to the early 'hacker ethics'.

I would like to offer a variety of definitions, drawing on the Hacker Jargon Dictionary by Eric S. Raymond: There we can read that a hacker (originally, someone who makes furniture with an axe) is:

1. A person who enjoys exploring the details of programmable systems and how to stretch their capabilities, as opposed to most users who prefer to learn only the minimum necessary.
2. One who programs enthusiastically (even obsessively) or who enjoys programming rather than just theorizing about programming.
3. A person capable of appreciating hack value.
4. A person who is good at programming quickly.
5. An expert at a particular program, or one who frequently works with or on it; as in 'a Unix hacker'. (Definitions 1 through 5 are correlated, and people who fit them congregate.)
6. An expert or enthusiast of any kind. One might be an astronomy hacker, for example.
7. One who enjoys the intellectual challenge of creatively overcoming or circumventing limitations.
8. [deprecating] A malicious meddler who tries to discover sensitive information by poking around. Hence 'password hacker', 'network hacker'. The correct term for this sense is "cracker."

These definitions do not only refer to computer hacking but also provide the opportunity to expand the term to include all kinds of systems (see 6.+7.). They point out that the actual terrain is not necessarily technology, and that the main characteristic of hacking is the attitude in which something is done. But in addition to the 'right' attitude, knowledge and skills are indispensable. So one of the most famous hackers' mottoes is: "Hacking: Attitude and Competence!". To generalise, one could say that hacking is all about learning and free inquiry.

This kind of inquisitiveness, however, does not have exclusively positive connotations; it is also equated with poking one's nose where it does not belong and asking awkward questions at the wrong time and place (1), especially when hackers' actions reveal the unreliability and insecurity of systems which are sold to the public as secure. In these cases, hackers are labelled by politicians and the media as dangerous criminals who steal sensitive or commercially valuable information, cause damage and endanger, in a worst-case scenario, national security. This is how hackers are usually viewed by the public, and onto them is projected all the uneasiness regarding new technologies. The fear of hackers is nothing other than the fear of uncontrollable and, for most people, mysterious, new technologies.

1

In order to distinguish themselves from people with purely criminal motives--who do, of course, exist--hackers themselves introduced the term 'cracker' (see 8.). Cracker

might be defined as a kind of hacker, hacker minus attitude (or with too much!). But this distinction has not gained wide acceptance. Nowadays, the term 'cracking' is mostly applied to a specific branch of hacking. There is a huge and well-organized scene which specializes in cracking all kinds of software, from operating systems to games. The 'Crackers' use the net only as tool for distribution, and do not work explicitly on network concerns. Cracking is of course illegal, because it means that licensed and copyrighted software is published for free; but crackers claim that what they are doing is legitimate, since according to the original hackers' ethics, information should be free.

What does hacking mean?

The first spectacular computer hacks made the hacked systems visible. Formerly closed networks suddenly became public, and of public interest. The public had not previously known of the existence of such systems nor had any idea of their importance. The rendering visible of these systems raised questions such as who stands behind them, who controls and manages them and in whose interests.

2

Hacking into a computer system means coming face to face not just with the technological apparatus, but also with the knowledge and information framework which backs it up. The technological systems are run by so-called experts who, in the organisation and operation of the system, wield a lot of power. That these experts often fail, and that their systems are unreliable is an incidental discovery of hacking, and certainly helps to deconstruct the image of the suggested all-pervading power. But the more important insight is that technological systems are about controlling knowledge and information and therefore about controlling power. This adds a political dimension to hacking, although most of the early hackers weren't particularly concerned about the political dimensions of what they were doing. (Even now, many hackers prefer to focus on the 'sporting' aspect, placing themselves in the political spectrum as "liberal" or even "uninterested".)

There have always been closed knowledge systems in most societies, and technology is traditionally used for building and maintaining such repressive structures. Anything that liberates such information is, therefore, anti-repressive, and aids the struggle for open knowledge systems. Hackers have created a new category of illegal knowledge. They are developing effective tools and strategies of resistance that we need in the information society.

3

Working for a free flow of information is one concern; another, very important and constantly growing concern is the development and distribution of free software. The open source movement became a mass movement and has proved that collaboratively and carefully developed software (e.g. Linux operating system) is not just cheaper, but often of better quality than commercial products.

And, as a third main concern of the hacking community, I would like to name cryptography, the efforts to render data traffic anonymous in order to protect sensitive data and the private sphere of the individual. So, on the one hand hackers work for the opening of knowledge systems and provide handy tools for this undertaking, and on the other hand work for the protection of the individual. Actually, we are experiencing a kind of revival of the hacker myth in the late 1990s. It is now being acknowledged that hackers represent a group of experts who practise resistance from the inside, whereas in the 1980s hackers were an elite handful of people who could easily be criminalized by the mass media, given that what they were doing was, as far as the broader public was concerned, cloaked in a cloud of mystery. Hackers were labelled the 'wizards of the information age' as they seemed to be able to control the machines which control people. On a technological level, hackers are able to look behind the scenes of the new media/ technologies and therefore certainly have a lot of power. But nowadays they are starting to organize and publish their ideas, reach a wider public and acquire political influence. Thus people today have a better understanding of the concerns of hackers than they did ten years ago. Hackers are still the heroes of the information age as they seem to be the only ones who can adequately respond to the challenges which go along with the complete restructuring of our society, but they have also started to demystify their own process.

The computer-literate rebel as a species was anticipated by science fiction. It is not just that many hackers find their role-models in cyberpunk sci-fi stories, but also that many of the literary fantasies of the 80s have meanwhile become reality. According to Rosi Braidotti (2), sci-fi writers "strip the veneer of nostalgia that covers up the inadequacies of the present cultural (dis)order, and push the crisis to its innermost resolution".

Further evidence of the increasingly positive connotation of hacking is the fact that the term itself is being appropriated in many non-technological fields. It stands for a method of thinking and working which breaks up or into all kinds of systems and questions their reliability or integrity. You can, for example, hack theory, competitions, political organisations, the body, gender or the future. One could also say that the term "hacking" is often used today in the sense which people ten years ago would have used "deconstruction". But hacking contains the additional

implication of subversion and underground, and has become popular in a culture where political activism is also a question of lifestyle.

Women hackers

In the course of pursuing my interest in hackers and their work, I attended several hackers' meetings. Naturally, as a cyberfeminist, I was looking for women hackers. In the beginning I tried to ignore the fact that the few women who participated in these meetings were not actively involved in computer hacking, and did not consider themselves to be hackers. It took me a while to realize that in fact there were NO women hackers. Why?

In the beginning I assumed that this was more or less a coincidence, and I started to search more specifically for them. I asked around, talked to hackers, posted calls on several mailing lists and in news groups. Most people told me that there certainly WERE female hackers, but nobody had any detailed information. A German correspondent wrote that he had once seen a woman hacker at a meeting in Holland. She had shown up and then disappeared, a bit like a ghost, and he sounded rather sad that he wasn't able to get to know her better.

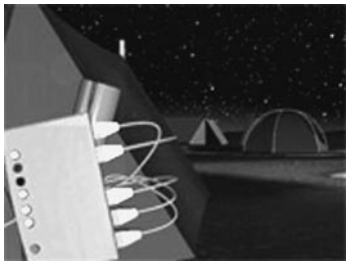
4

I also addressed certain people personally in my research, for example Bruce Sterling, a writer and specialist in the US-hacker scene. He wrote me back: "It's true, there are NO women hackers, but it no longer amazes me. Hacking is a teenage-male voyeur-thrill power-trip activity. You don't find female computer intruders, any more than you find female voyeurs who are obsessed with catching glimpses of men's underwear. Women are very, very rarely arrested for sneaking around in the dark of night, peering through bedroom windows. Teenage males are arrested for this all the time. It's not that women are physically or mentally unable to do it. It's just that there is no motive. Don't believe me? I would advise you to go to some cracking sites, and get the omnipresent point-and-click software, and go ahead and crack into some computers. You will soon discover how incredibly dull it is. There is no emotional payoff there.
You don't find young men who shoplift cosmetics, they just never do that. But young women do that 'all the time'--stealing expensive lipstick and hiding it in your purse, that is the female emotional equivalent of a hacking-crime. There aren't many women who cruise around sites trying to snitch passwords and break into stuff at random. I don't know of any such women, personally. And I've never even 'heard' of a woman who did it on her own, without some boyfriend at her shoulder eagerly telling her how exciting it was. I once heard Jude Milhon vaguely refer to such a system-cracking woman. But I think it was an urban legend ..."

Basically Sterling does not make the distinction between hackers and crackers. And he says that women do not have a motive for hacking, because there is no emotional pay-off for them. Is he imputing a very poor emotional life to men, who seem to get a kick out of such dull activities? And why should girls or women not go for any power-trip activities? But what surprised me most was the fact that he completely left out the political dimension of hacking. And he implies that, because it is a silly thing anyway, there is no need for women to start doing it.

Another specialist I've come across in my research is Gail Thackeray. She is not a hacker herself, but is prosecuting them. She is member of the Special Counsel for Technology Crimes at Arizona Attorney General's Office, and is currently building a new computer crime unit. She had her biggest successes in hunting hackers in the early 90s, and she is feared and hated by the hacking community. I met her on an American hackers list, where I had posted questions and asked for gossip about her. The first answer I received after my request was from Gail Thackeray herself. Obviously she subscribes to all relevant lists and follows what is going on. She said that she would be very interested in the gossip about her.

I tried, of course, to squeeze information about women hackers out of her. Here is her answer to the question:
"No, there are no serious technical women hackers. It's still largely a white male thing, at least here in the US. [Only one black hacker in Arizona (retired), and one in New York]. There were a lot of women phone phreaks, though for the most part they were merely "finger hackers" and more interested in the social aspects than the technical. One of these was "Kyrie" who got dozens of adoring adolescents to fund her escapades by stealing credit card numbers and posting them to her hacked-out voice mail boxes; she also had several who stole credit cards and sent her $$ by Western Union, under aliases. Bill Cook (formerly an Assistant United States Attorney in Chicago, now a private attorney) prosecuted her, with a little help from us. Again, she wasn't all that adept technically, and her motivation seemed to be part fame and part money. She went to prison for fraud."


5

To my question as to why there were no women hackers, she explained: "Men and women (warning: sweeping generalisation coming!) seem to obsess about different things, by and large. Even though many little girls play

baseball, you never meet one who obsessively memorises the professional baseball stats the way whole armies of boys do ... Part of the lure of hacking is the same role-playing thrill people get from games like Dungeons & Dragons--another obsession more male than female. It's a (false) power rush, illusion of control, dominance, etc. to "take over" a system. The illusion of danger (very few hackers ever get caught, not because they're so clever, but because hardly anyone is working this beat) spices up what is really a fantasy game using other people's systems. In reality, few hackers are particularly creative--the vast majority are shameless plagiarists, using tools others have invented, invading systems that have no reason to be especially secure. I don't know why girls don't go to the "dark side" of the Net in the same numbers that boys do--why are there so few women CEOs of tech companies in Silicon Valley, where everyone can be a startup CEO? We get lots and lots of women passing bad checks and using false ID--but the actual counterfeiters so far are predominantly male. Dunno why.

6

I would think some of this must be changing, with virtual workplaces and such--after all, if "on the Internet no-one knows you're a dog," how would they know whether they're hiring a woman? I know there are a lot of women in Webpage design firms--maybe ask some of them whether they were ever hackers and if not, why not. The illegal kind of hacking-for-glory is a rather adolescent pursuit: maybe girls go through some other phase ... As to prosecuting male hackers, I prosecute lots of different kinds of crimes---statistically speaking, there are many more male criminals than female, though the difference is diminishing in the USA. As prosecutors, we meet the victims and become familiar with the adverse effects of crime on them, their families, businesses, etc. Usually, law enforcement is reactive --a victim complains of injury--rather than going out looking for offences being committed. Even undercover investigations like 'Operation Sundevil' are usually a response to complaints from a whole group of victims. It's not that we're targeting young male hackers, it's just that that's who we find, by and large, when we investigate the complaints."


7

It is characteristic that her argument leaves out any political reasons for hacking. She is tracing back hacking to psychological deficiencies from which male juveniles seem to suffer particularly. Thackeray represents "law & order", protecting helpless victims of criminal hacking activities.

But finally I came across one woman hacker who even made it into history. Her name is Susan Thunders, and she is described in the book "Cyberpunk" by Katie Hafner and John Markoff, 1991. She was a member of the so-called Roscoe gang in Los Angeles in the early 80s. She was a specialist in military computers, and her most outstanding ability was to manipulate other people. The following story of Susan is retold from the book.

The gang was named after Roscoe, her boyfriend. Another well-known member of the gang was Kevin Mitnick, who became a very well-known hacker after the gang era and currently is serving a three year prison term without an indictment.

First of all, they were telephone phreaks, which is to say they hacked telephone systems to make free phone calls and to tap other people's calls. They could do anything to telephone systems, change people's number, cancel accounts and so on. When the control mechanisms of the telephone companies switched to computer systems, the Roscoe gang also started to work with computers.

Susan was a tall blonde and worked as a prostitute in Hollywood. She had been mistreated and abused by her family and had started to look for comfort through the telephone. There was a telephone conference circuit she used a lot, called HOBO-UFO, and after a while she became interested in who was behind it. She contacted the operator, who was Roscoe, and they became friends and lovers. They had a lot in common, both having a penchant for psychological subversion, which means they were both good at manipulating other people. And she was infected by his fascination for computers.

For Susan it was a love affair, whereas Roscoe saw it more as a business partnership. She was his protégé, and showed great talent in invading computer systems. She specialized in military computers. Although she was still a beginner she could compensate for her lack of knowledge through her social abilities. One classic method she used was to go into the military bases, hang around in the officer's club, make contact with high military officials, make love to them and afterwards search their documents for passwords and information. And all the money she made through prostitution, about $5000 a month, was spent on computer and telephone equipment.

She was fascinated by power, and the computers which contained the most primal and secret information about military affairs were what attracted her most. There lay the

real power, and she wanted it. But she still considered hacking as an art rather than as a source of income. She also loved spying on people and confronting them with the information she had collected about them.

After a while she found out that Roscoe was two-timing her and that he was planning to marry the other girl, who was a middle-class law-student. He split up with Susan brutally, and even her threat to betray him to the FBI failed to make him change his mind. She, however, was obsessed with revenge and started to collect material and hand-written documents which would incriminate him as a hacker. She monitored the phone lines of Roscoe, his girl-friend and Kevin, and started a multi-level private war against them. When she was sure of her evidence she contacted the investigation department, giving her concern for national security as her official reason for doing so. During the trial she was the main witness and assisted the prosecution with explanations of computer technology. Roscoe was sentenced to 15 months detention.

After that she gave up her hacking activities and became a security adviser. Two years later she was asked to join a hearing at the US Senate in Washington, where she spoke on national security and was asked to demonstrate her knowledge. She was given a computer, a modem and the name of a system she should hack; within twenty minutes she had the entire secret data of the system on her screen. She had brought all her talents into play, including her ability to convince people on the phone to hand out passwords, and thus provided incontestable proof that the weakest link in the security chain is the human being. After that performance she completely gave up her computer and telephone activities and embarked on a career as a professional poker player.

That's what the story tells. We've heard above that women do not have any reason to break into computers. That was obviously different with Susan. She had reasons: a propensity for escaping from the real into the virtual world, combined with her desire for power and control; and certainly she wanted to impress her boyfriend. After Roscoe had left her, her strongest motive was revenge.

It is not clear if this is all based on fact, but the book claims to be a documentary account and is written by serious journalists. In any case, constructing the image of a woman hacker who is actually a whore fits perfectly into the convention of discrediting hackers by referring to their psychological deficiencies and immorality, and by imputing criminal reasons to what they are doing. And, if the hacker is a woman, nothing is a surer sign of her immorality than her being a whore. Sex, crime and technology all come together in the person of Susan Thunders. Sex was one instrument in her power play, technology another. Additionally, the whore also functions as a projection field for fears in a similar way that hackers do. But instead of representing the dark sides of technology, the whore represents the dark side of sexuality. Although Susan Thunders was a hard-core computer hacker, her hacker image will always be associated with her being a prostitute. It is unlikely we will ever hear the story of a male hacker who uses his sexuality in order to 'do his job', although other manipulative social engineering behaviours clearly belong to male hacking practice.

Hacking and Cyberfeminism

My research shows that extremely few women are active in the field of hacking. It is not just in the commercial development of technology, but even more in alternative fields and the technological underground that there are so few women involved. No matter what area of application and no matter what the objective, the borderlines of gender are still maintained. Of all the technological spheres, however, it is in the hacker scene that we find the fewest women. Hacking is a purely male domain, and in that sense a clearly gendered space.

The starting point for dealing with the subject of women hackers was the importance of the work hackers do, their function in society and the persistence of the practice as described above, linked to the fact that almost no women hackers exist. I find it significant that the deconstruction of the all-pervading power of technology, from a cyberfeminist point of view, has first to be combined with a gender-specific deconstruction of power, since technology is still, primarily, associated with maleness.

Although the handling of technology that traditionally has been female-associated, industrial machinery, scientific projects and computer languages have all been symbolized by female names, so the borderline between femininity and technology can be located where such attributes as technical competence, power and control over technology and the construction of machines are introduced. As Heidi Schelhowe, a German computer scientist, points out in her paper "Computer in der Informationsgesellschaft: Technologie mit neuem Gesicht — und altem Geschlecht?", it is the task of gender studies in technical sciences to deconstruct the category of 'technology' per se, in the way that gender and sex are being deconstructed by the social and human sciences. Technology has traditionally been perceived as something that is based on abstraction and logical thinking, on reason, all characteristics which traditionally have male connotations, whereas femininity has been associated with nature, emotion, mysticism, and intuition. But although abstraction has been posited as the antithesis of a nature-related and physical femininity, one might argue that abstract thought is something which is basically independent of physical conditions, i.e. also of gender.

The simple presence of more women, however, would not necessarily change the resulting products. The demand for a higher proportion of women in technology implies a

to be continued p.48

Girls

So, your crush on Björk has finally died a whimpering death and you're wondering where to go from here. All the scenester ladies are either dating a series of interchangeable high-school riot boys in skater uniform and an overdose of manic panic, or permanently shacked up with some bitter old gentlman who pays all the bills. Which will it be, a masculine prison or a humiliating one night stand? Into this void of potential mates comes a woman you may not have considered before, a woman of substance, quietude and stability, a cerebral creature with a culture all her own. In short, a geek girl.

Why Geek Girls rule

- They are generally available.
- Other men will tend not to steal them.
- They can fix things.
- Your computer will love them.
- They're smart.

Where the Geek Girl lurks

While they are often into alternative music, geek girls tend not to go to shows too often. Instead you'll find them hanging out with their friends, discussing the latest hardware revolution or perfecting their Bill Gates impressions. You know how some people wear t-shirts with their favorite bands on them, thus showing that they went to certain shows? Well, geek girls wear t-shirts with the logos of different software companies on them, thus showing that they are up on the latest releases. A small, though con-vivial, rivalry may be detected here amongst the geek ladies. Try wearing one yourself and see if she strikes up a conversation.

Of course the best way to meet a geek girl is through the internet. All geek girls harbor a secret fantasy about meeting some man (or woman) in cyberspace, carrying on an e-mail romance in which she has the chance to com-bine an activity she is comfortable with, computing, with one she is very uncomfortable with, socializing. To many geek girls, cyberdating is just an advanced form of some kind of video game, but they are frustrated by a lack of players. Their lack is your strength.

Imprinting

You might notice that these women harbor some strange ideas about how the world works and some particularly strange ideas about men. There is a reason for this. Because they've had limited interpersonal experience, geek girls must look elsewhere for behavior models. Lacking a real world social milieu, geeks often go through a transference stage with such narratives, and try to model their interactions on them. Thus, certain media images and themes come to have an overly cathected, metaphorized reality to them, while the rest of us view such programming as mere entertainment. Case in point, our next topic...

The Scifi Factor

If you're not up on your Star Trek, you can forget about getting or keeping a geek girl. You've got to be up on your The Next Generation, your Deep Space Nine, your Babylon 5. Armed with your own knowledge of Federation policies, you can better gauge when and how to act. The sexual politics of Star Trek are pretty blunt: the women run the technology and the ship, and the men are caretakers (a doctor and a counselor). Note the sexual tensions on the bridge of the Enterprise: the men, in skin tight uniforms, and with luxuriant, flowing hair. The women, often balding, and sporting some sort of permanently attached computer auxiliary. This world metaphorizes the fantasies of the geek lady, who sees herself in the geeky-but-heroic female officers and who secretly desires a sexy, smart, Berry or Kevin to come along and deferentially accept her for who she is. If you are willing to accept that this is her starting point for reality, you are ready for a geek relationship.

Once you have nabbed her

Of course, catching that geek girl is only half the battle. Keeping her by your side is another story altogether. I was privileged to speak with a guy, who not only got himself a geek girl, but was also clever enough to marry her just a few short months ago. He interrupted his newlywed bliss to give us a few tips on the care and feeding of a geek woman: Geeks are sensitive and caring lovers and wifes. If you can hang with the techno-lifestyle, they make the best mates. They are the most attractive people, not flashy or hunky, but the kind who get cuter and more alluring over time (I told you he was a newlywed). Definitely give geeks a chance.

Geek Cuisine

Geeks tend towards packaged junk foods since they prefer to work and think and aren't all that into cooking for themselves. Make sure that your geek girl understands that you are not merely a replicator, and provide her with home-cooked food. A batch of chocolate chip cookies will let her know that you love her. You do have to monitor your geek girl for weight gain, however; remember that most of their days are spent sitting and staring at a monitor.

Geek Lifestyles

The geek girl has long work habits and tends to bring her work home with her. She seems permanently connected to her hard disk. You must at least appear interested in her work. Generally, a solid understanding of the computer is a must; if you cannot master this, you should at least be able to talk the talk. Remember most geeks are anal and they get stressed about details which appear insignificant. Be understanding, put on your best face and empathize.

To relax, geeks love to play the latest computer games. Let her play Tomb Raider III if she wants to. Act concerned if she's stuck or has just been erased. Some geeks love to try to help people on the internet who say that they are stuck in a game. She comes up with clever riddles instead of directing them point blank. Geeks also like to go to sci-fi and Japanese animated movies, again, a basically harmless vent for your woman.

Geek Friends

Many geeks extend their work friendships into what they jokingly refer to as RL (Real Life, also known as "that big room with the ceiling that is sometimes blue and sometimes black with little lights"). The greatest thing about your geek's friends is that you can feel secure in setting them up with your boyfriends. They may feel awkward around males at first, so don't overwhelm them. In time they will come out of their shell and realize that you are into the same things they are.

One Last Thing

Because they have been so abused and ignored by society, many geek girls have gone underground. You may actually know some and just haven't noticed it. They often feel resentful, and misunderstood, and it is important to realize this as you grow closer to them. Don't ever try to force the issue, or make crazy demands that she choose between her computer and you. Remember, her computer has been there for her whole life; you are a new interloper she hasn't quite grasped yet.

Geek girls thrive on mystery and love challenges and intellectual puzzles. Don't you consider yourself one? Wouldn't you like a little intellectual stimulation of your own? We thought so.

Happy Hunting

desire to question traditional assumptions and to raise consciousness regarding technology-implicated power structures. Software development and the required competencies have to be redefined. The new and still ungendered fields would then offer new opportunities for women (3).

In the same way as Schelhowe argues on behalf of computer science, I would like to argue, for the hacker scene, that it is imperative to deconstruct technology in the described way and to stop closing our eyes to the fact that 'the hacker' is a white male. Hackers do not just represent a danger for closed knowledge and power systems, but are, paradoxically, simultaneously representing them in the sense that only white males embody the new illegal knowledge.

While this opinion contains a generalisation about men and women and refers to the biological sex of a person, it also relates to the social construct of gender, and therefore recalls the feminist arguments of the 70s. But obviously, girls and boys are still brought up in different ways, and develop different preferences. It is necessary to face this fact and the resulting conflicts in order to bridge the gap between social and political realities and wishful cyberfeminist thinking.

I am not assuming that women and technology necessarily have as special and as close a relationship as certain cyberfeminists proclaim. My clitoris does not have a direct line to the Matrix--unfortunately. Such rhetoric mystifies technology and misrepresents the daily life of the female computer worker. The simple fact is that most women prefer to spend their lives doing other things than programming fanatically or exploring the depths of the net. And even within the cyberfeminist community, there are only a few computer professionals, and fewer nerds.

Currently most women seem to prefer to undertake politically engaged work in a purely cultural environment and on a non-technological level. Women are not actively influencing the development of hard- and software, and therefore are surrendering any chance to share the related power. The question is, whether cultural/ aesthetic practice alone can sufficiently affect technological development, or whether women finally will have to get their hands dirty with technology.

We have to ask ourselves questions like "How deep do we have to get into technology in order to be able to handle it consciously and be able to influence technological developments?", and "What prevents us from just going for it?" and "Does cyberfeminism necessarily require technical competence, or is it sufficient to theorize about technology and to focus on the social, cultural and political aspects of new technologies?"

We are living in a mental climate which is full of contradictions. Utopian theories promise a post-humanist age which is marked by gender- and body-obsolescence. On the other hand, the individual is still part of the power structures constituted by capital, race and gender. We have to bear with this contradiction, try to attenuate the power and the explosive force of the new utopias, and build new social realities with it.

To finish, I will give a brief glimpse into the near future when the world will be populated and shaken by women hackers, who are out of control: Please have a look at he Guide to Geek Girls (p. 48)

edited by **Tina Horne**

(1) Patrice Riemens, HEART - Don't panic! Hack it!, INFO WAR, ars electronica 98
(2) Rosie Braidotti, Cyberfeminism with a difference
(3) Heidi Schelhowe, Computer in der Informationsgesell-schaft: Technologie mit neuem Gesicht -- und altem Geschlecht?
http://waste.informatik.hu-berlin.de/Schelhowe/heidi.html

Images:
1) Logo of the German Chaos Computer Club
2) Grave-stone of Bill Gates, located at HIP, Hacking in Progress, 1997
3) Nerd-wear Logo
4) HIP, Hacking in Progress, Tent of the Dutch Webgrrls, foto by Sabine Helmers
5) Illustration of the Hacker Camp 'Heart of Gold', Berlin, 1999
6) Geek Chic Pin-up Calendar, 'January's Hot Hacker'
7) Geek Chic Pin-up Calendar, ' Fox February'

URLs:
The New Hacker's Dictionary: http://www.outpost9.com/reference/jargon/jargon_toc.html
News and community site for hackers: www.slashdot.org
Hacker scene : http://www.attrition.org/~modify/texts/scene/
The Hacker Crackdown, Bruce Sterling: http://lonestar.texas.net/~dub/sterling.html
How to become a Hacker: http://www.tuxedo.org/~esr/faqs/hacker-howto.html
2600 Magazine: http://www.2600.com
http://www.defcon.org/
Cult of the Dead Cow: http://www.cultdeadcow.com/
Cypherpunks: http://www.replay.com/cpunk/index.html
Nerdiness, Geeks and Hacker Culture: http://www.nada.kth.se/~asa/weirdness/nerd_page.html
www. bunnyhop.com

Barbara Thoens

Linux and the freesoftware philosophy

About the GNU Project
The GNU Project, which was founded in 1984 by Richard Stallman, has developed a complete free unix-compatible software system named „GNU". The name GNU is following a hackers tradition as a recursive acronym for „GNU's Not Unix".

„Digital information technology contributes to the world by making it easier to copy and modify information," Stallman writes in his paper for the UNESCO forum on „info-ethics 98". „Computers promise to make this easier for all of us. The system of copyright gives software programs 'owners', most of whom aim to withhold software's potential benefit from the rest of the public. They would like to be the only ones who can copy and modify the software that we use. [...]
„What does society need? It needs information that is truly available to its citizens--for example, programs that people can read, fix, adapt, and improve, not just operate. But what software owners typically deliver is a black box that we can't study or change. Society also needs freedom. When a program has an owner, the users lose freedom to control part of their own lives. And above all society needs to encourage the spirit of voluntary cooperation in its citizens. When software owners tell us that helping our neighbors in a natural way isípiracyë', they pollute our society's civic spirit. This is why we say that free software is a matter of freedom, not price."

But the increasingly draconian measures of the Software Publishers Association (SPA)now used to enforce software copyright „resemble those used in the former Soviet Union, where every copying machine had a guard to prevent forbidden copying, and where individuals had to copy information secretly and pass it from hand to hand as 'samizdat'. There is of course a difference: the motive for information control in the Soviet Union was political; in the US the motive is profit. But it is the actions that affect us, not the motive. Any attempt to block the sharing of information, no matter why, leads to the same methods and the same harshness."

The History of GNU
Richard Stallman belonged to the early MIT-hackers: in 1971, when he started his career at the MIT Artificial Intelligence Lab, he became part of a software-sharing community that had existed for many years and that used free software exclusively. Sharing of software was not limited to this particular community, it is as old as computers are, just as sharing of recipes is as old as cooking. But at MIT they did it more than most.

The AI Lab used a timesharing operating system called ITS (the Incompatible Timesharing System) which the AI lab hackers themselves had designed and written in assembler language for one of the large computers of that era, the Digital PDP-10. Stallman's job as a member of the MIT-hacker-community was to improve this system.

Talking about the GNU Project, Richard Stallman remembers that they did not call their softeware 'free software', because the term did not yet exist; but that is what it was. When ever people from another university or a company wanted to port and use a program, they gladly let them. If you saw someone using an unfamiliar and interesting program, you could always ask to see the source code, so that you could read it, change it, or cannibalize parts of it to make a new program.

The AI lab community collapsed not long before 1981, when the private company 'Symbolics' had hired away nearly all of the hackers from the AI lab, and the depopulated community was unable to maintain itself. In 1982 the lab bought a new PDP-10 and its administrators decided to use Digital's non-free timesharing system instead of ITS.

By the 1980s, almost all software was proprietary. The rule made by the owner of proprietary software was: „If you share with your neighbour, you are a pirat. If you want any changes, beg us to make them." Richard Stallman refers to the „proprietary software system" as antisocial, unethical and simply wrong, because he thinks that cooperation is more important than copyright. He doesn't agree to take this as naturally given, because to him it is clear that „copyright is not a natural right, but an artificial government-imposed monopoly that limits the users' natural right to copy."

„The idea of natural rights of authors was proposed and decisively rejected when the US Constitution was drawn up. That's why the Constitution only permits a system of copyright and does not require one; that's why it says that copyright must be temporary. It also states that the purpose of copyright is to promote progress--not to reward authors."

Stallman always wanted the computer users to be free to modify programms to fit their needs, and to share software, because for him helping other people is the basis of society. So he looked for a way, how he as a programmer could do something. He knew, what was needed first was an operating system, because every computer user needs an it; if there is no free operating system, then you can't even get started using a computer without resorting to proprietary software. This made the GNU project necessary. And he had the basic wish that--with a free operating system--there could be again a community of cooperating hackers.

In January 1984 Stallman quit his job at MIT and began writing GNU software. For him leaving MIT was necessary, so that MIT would not be able to prevent him

from distributing GNU as free software. So the first item on the free software agenda was a free operating system. An operating system is not just a kernel; it also includes compilers, editors, text formatters, mail software, games and many other things. Thus, writing a whole operating system is a very large job which took many years.

To bring it into reach, Stallman decided to adapt and use pieces of free software wherever that was possible. So, at the very beginning, he used TeX as the principle text formatter, and a few years later, he decided to use the X Window System (which is not copyrighted) rather than writing another one for GNU.

„Because of this decision, the GNU system is not the same as the collection of all GNU software. The GNU system includes programs that are not GNU software, programs that were developed by other people and projects for their own purpose, but which we can use because they are free."

As first step, Stallman worked on GNU Emacs (a well-known text-editor), with which he „who had no job and was looking for ways to make money from free software, started a free software distribution business, the precursor of the companies that today distribute entire Linux-based GNU systems (like Debian etc.) GNU Emacs was followed by a c-compiler, which Stallman had to write from scratch. Today this compiler is known as GCC.

The Free Software Foundation
With users growing interest in using the text-editor GNU Emacs, other people became involved in the GNU project, and in 1985 they created the Free Software Foundation, a tax-exempt charity for free software development, which is dedicated to eliminating restrictions on copying, redistribution, understanding, and modification of computer programs.

Free Software Foundation employees have written and maintained a number of GNU software packages. (Some notable ones are the C library ,the BASH (bourne again shell), the archive software GNU tar, the debugger GDB, and GNU make.)

Besides developing GNU, The FSF also took over the Emacs tape distribution business by distributing copies of GNU software and manuals for a distribution fee, and accepts tax-deductible gifts to support GNU development. Later the FSF extended this by adding other free software to the tape, and by selling free manuals as well. Most of the FSF's funds come from its distribution service. This is why you should order CD-ROMs and manuals (but especially CD-ROMs) from the there when you can.

Free software support
Stallman's free software philosophy rejects a specific widespread business practice, but is not anticommercial, as Eric Raymond suggests (in his paper 'Homesteading Noosphere').

Selling copies of Emacs demonstrates one kind of free software business. When the FSF took over that business, Stallman needed another way to make a living, which he found in selling services relating to the free software, he had developed. This included teaching for subjects such as how to program GNU Emacs and how to customize the GNU c-compiler, and software development, mostly porting the compiler to new platforms. Today each of these kinds of free software business is practised by a number of corporations. Some distribute free software collections on CD-ROM; others sell support at levels ranging from answering questions, to fixing bugs, to adding major new features.

Companies including Intel, Motorola, Texas Instruments and Analog Devices have combined to fund the continued development of the free GNU compiler for the language C. Meanwhile, the GNU compiler for the Ada language is being funded by the US Air Force, which believes this is the most cost-effective way to get a high quality compiler. [Air Force funding ended some time ago; the GNU Ada Compiler is now in service, and its maintenance is funded commercially.]

The GNU Task List
As the GNU project proceeded, it started publishing lists of remaining gaps, in order to recruit developers from all over the world to write the missing pieces. This list became known as the GNU task list.

In 1991 the initial goal of a free Unix-like operating system has been achieved. By the 1990s, the FSF had either found or written all the major components except one: the kernel. Then, in 1993/94, Linux, a free kernel, was developed by Linus Torvald. Combining Linux with the almost complete GNU system resulted in a complete operating system: GNU/Linux, a Linux-based GNUsystem.Today estimates put the Linux installed base from 5 to 10 Million.

„The principal goal of GNU was to be free software. Even if GNU had no technical advantage over Unix, it would have a social advantage, allowing users to cooperate, and an ethical advantage in respecting the user's freedom."

But some basic technical decisions (dynamically allocating data structures to avoid arbitrary fixed size limits, and handling all the possible 8-bit codes wherever that made sense, and the rejection of the Unix focus on small memory size by deciding not to support 16-bit machines) enabled GNU programs to surpass their Unix counterparts in reliability and speed!

Future concerns
The hacker-community has proved its ability to develop a broad spectrum of free software. But this does not mean, that it is invincible and unstoppable, because several challenges make the future of free software uncertain, as there are: Secret hardware, Software patents, Non-free libraries and the lack of free documentation.

-- Secret hardware
Hardware manufactures increasingly tend to keep hardware specifications secret, which makes it difficult to write free drivers in order to support new hardware.(de-commoditize protocols'). There are ´two ways to cope with this problem: Programmers can do reverse engineering to figure out how to support the hardware, and the rest of us can choose hardware that is supported by free software

-- Non-free libraries
A non-free library that runs on free operating systems acts as a trap for free software developers: if you use the library, your program can't usefully be part of a free opera-

ting system, because it won't run with the library missing. And even worse: if your program becomes popular, it can lure other unsuspecting programmers into the same trap!

Between 1996 and 1998 for example, a non-free Graphical User Interface toolkit library, called 'Qt', was used in a substantial collection of free software, the desktop KDE. Some commercial distributors of GNU/Linux systems, who were not strict about sticking with free software, added KDE to their system. While the KDE group was actively encouraging more programmers to use 'Qt', millions of new Linux users had never been exposed to the idea that there was a problem in this. The free software community responded to this problem in two ways: with GNU's desktop project named GNOME, the GNU Network Object Model Environment, and with a compatible replacement library named 'Harmony', designed to make it possible to run KDE software without using 'Qt'.

-- Software patents
The worst thread to face comes from software patents, which (in the united states) can put algorithms and features off limits to free software for up to twenty years. The LWZ compression algorithm patents for example were applied for in 1983, and it is still not possible to release free software to produce proper compressed pic-tures in GIF format. In 1998, a free program to produce MP3 compressed audio was removed from distribution under threat of a patent suit. There are 2 ways to cope with patents: to search for evidence that a patent is invalid and to look for alternative ways to do a job. But these methods works only sometimes; when both fail, a patent may force all free software to lack some feature that users want.

-- The lack of Free documentation
Documentation is an essential part of any software package. The biggest deficiency in the free operating systems is not in the software--it is the lack of good free manuals that can be included in our free software systems.

„The criterion for a free manual is pretty much the same as for free software: it is a matter of giving all users certain freedoms. Redistribution (including commercial sale) must be permitted, on-line and on paper, so that the manual can accompany every copy of the program.
(Some kinds of limits on how modifications are done pose no problem. For example, requirements to preserve the original authors' copyright notice, the distribution terms, or the list of authors, are ok. It is also no problem to require modified versions to include notices that they were modified, even to have entire sections that may not be deleted or changed, as long as these sections deal with non-technical topics.").

Categories of Free and Non-Free Software
Free software
Free software is software that comes with permission for any one to use, copy, and distribute, either verbatim or with modifications, either gratis or for fee. In particular, this means that source code must be available. „If it's not source, it's not software." Free software is a matter of freedom, not of price. All GNU software must be free software. (The GNU system includes all the GNU software as well as many other packages such as the free X Windows System and the free TeX which are not GNU software).

Open Source Software
The term 'open source' software is used by some people (Eric Raymond, Debian, Linus Thorvald) to mean more or less the same thing as free software. (Example licenses: the GNU GPL, BSD, X-Consortium and Artistic licenses that they consider conformant to the Open Source Definition. So are MPL and OPL.)

Copylefted software
Copylefted software is free software whose distribution terms do not let redistributors add any restrictions when they redistribute or modify the software. Typically, copyrights take away freedoms; copyleft preserves them. It is a legal instrument that requires those who pass on a program, to include the rights to use, modify, and redistribute the code, so that the code and the freedoms become le-gally inseparable. Most GNU software is copylefted, but not all.
The copyleft used by the GNU Project is made from the combination of a regular copyright notice and the GNU General Public License (GPL). The GPL is one specific set of distribution terms for copylefting a program which basically says that you have the aforementioned freedoms the GNU Project uses it as the distribution terms for most GNU software.

An alternate form, the GNU Library General Public License (LGPL), applies to a few (but not most) GNU libraries. This license permits linking the libraries into proprietary executables under certain conditions. The appropriate license is included in each GNU source code distribution and in many manuals. Printed copies are avail-able upon request.

The FSF strongly encourages everybody to copyleft his/her programs and documentation, and has made it as simple as possible to do so. The details on how to apply either form of GNU Public License appear at the end of each license.

Non-copylefted free software
Non-copylefted free software comes from the author with permission to redistribute and modify, and also to add additional restrictions on it. So, it could also be distributed as a proprietary software from any company. (s. Public Domain and X Windows System)

Semi-free software
Semi-free software is software that comes with permis-sion for individuals to use, copy, distribute, and modify (including distribution of modified versions) but exclusively for non-profit purposes. PGP is an example of a semi-free program. Though semi-free software is much better than proprietary software, it still poses problems, and it can't be used it in a free operating system like GNU.

Proprietary software
"Proprietary software is software that is not free or semi-free. It's use, redistribution or modification is prohibited, or requires you to ask for permission, or is restricted so much that you effectively can't do it freely."

Commercial software
Commercial software is software being developed by a business which aims to make money from the use of the software. 'Commercial' and 'proprietary' are not the same thing. Most commercial software is proprietary, but there is

commercial free software and there is non-commercial non-free software. (GNU Ada is a free commercial compiler; it happens to be a free software.)

Freeware
The term 'freeware' has no clear accepted definition, it was used often in the 1980s for programs released only as executables with source code not available. Today it is commonly used for packages which permit redistribution but not modification. So it is highly recommended not to use the term 'freeware' as a synonym for 'free software'.

Shareware
Shareware is software which comes with permission for people to redistribute copies, but says that anyone who continues to use a copy is required to pay a license fee. For most shareware, source code is not available which means that it is not 'free software'.

Public domain software
'Public domain' is a legal term and means precisely „not copyrighted". It is a special case of non-copylefted free software, which means that some copies or modified versions may not be free at all. This means that anyone can make a proprietary modified version of it. The paradigmatic example of this case is the X Windows System, developed at MIT and released as free software with a permissive licence: it was soon adopted by various computer companies. They integrated it into their proprietary Unix systems, in binary code only, and covered by the same non-disclosure agreement.

Problems--caused by the ambigous term 'free software':
„Many languages have two seperate words for 'free' as in freedom and 'free' as in zero price. In french for example, you have 'libre' and 'gratuit'. In German there is 'frei' and 'kostenlos' bzw. 'umsonst'. In Russian you have 'cwobodni' and 'bjecplatni'. English has the word 'gratis' that refers unambigously to price, but no common adjective that refers unambigously to freedom.

So the FSF proposes not to say that software is available 'for free' if you want to say that a program is free software. That term specifically means 'for zero price'. Free software is a matter of freedom, not of price. To avoid confusion, you can say that the program is available 'as free software'. Stallman emphasizes, that interest in the software is growing faster than awareness of the philosophy it is based on, and this leads to trouble.

„The communities' ability to meet the challenges and threads described, depends on the will to stand for freedom. To make sure our community has this will, we need to spread the idea to the new users as they come into the community. But we are failing to do so: the efforts to attract new users into our community are far outstripping the efforts to teach them the civics of our community. We need to do both, and we need to keep the two efforts in balance."

The 'Open Source' label
After Netscape's announcement in early 1998, Eric Raymond, who was the programmer of the Fetchmail software and who is the author of the influential paper "The Cathedral and the Bazaar" contrasting open source with proprietary development, did a lot thinking about the serious push to get free software accepted in the mainstream corporate world: „I've become convinced that the term 'free software' has to go. The problem with it is twofold. First, it's confusing; the term "free" is very ambiguous.Second, the term makes a lot of corporate types nervous. We need a new and better label and we came up with the replacement label 'open source'. And, we should explain publicly the reason for the change. It says we're willing to work with and co-opt the market for our own purposes, rather than remaining stuck in a marginal, adversarial position....Bruce Perens (he wrote the Debian Free Software Guidelines) has applied to register 'open source' as a trade mark and hold it through Software in the Public Interest (SPI)."

While Linus Torvald himself supports this new label, Richard Stallman opposes to it, because he thinks that „the main argument for the term 'open source software' is that 'free software' makes some people uneasy. That's true: talking about freedom, about ethical issues, about responsibilities as well as convenience, is asking people to think about things they might rather ignore; this can trigger discomfort. It does not follow that society would be better off if we stop talking about these things. [...]

Today many people are switching to free software for purely practical reasons. That is good, as far as it goes, but that isn't all we need to do! Attracting users to free software is not the whole job, just the first step. Sooner or later, these users will be invited to switch back to proprietary software for some practical advantage. Countless companies seek to offer such temptation, and why would users decline? Only if they have learned to value the freedom in free software for its own sake. It is up to us to spread this idea--and in order to do that, we have to talk about freedom. A certain amount of the 'keep quiet' approach is useful for the community, but we must have plenty of freedom talk, too. At present, we have plenty of 'keep quiet', but not enough freedom talk. [...]

...many companies are trying to give the term 'open source' a different meaning. [...] In effect, these companies seek to gain the favorable cachet of 'open source' for their proprietary software products--even though those are not 'open source software'--because they have some relationship to free software or because the same company also maintains some free software. [...] These companies aim to blur the distinction; they want us to regard their non-free software as a contribution when in fact it is not. They present themselves as 'open source companies', hoping that we will get a warm fuzzy feeling about them, and that we will be too fuzzy-minded to be selective in how we apply it. This manipulative practice would be no less deceptive if they did it using the term 'free software'. But companies do not seem to use the term 'free software' that way; perhaps its association with idealism makes it unsuitable for such misuse. The term 'open source' opened the door for it.

(At a trade show in late 1998, dedicated to the operating system often referred to as 'Linux', the featured speaker was an executive from a prominent software company. He was probably invited on account of his company's decision to „support" that system. Unfortunately, their form of support consists of releasing non-free software that works with the system--in other words, using our

community as a market but not contributing to it. He said: „There is no way we will make our product open source, but perhaps we will make it 'internal' open source. If we allow our customer support staff to have access to the source code, they could fix bugs for the customers, and we could provide a better product and better service." (This is not an exact quote, as I did not write his words down, but it gets the jist.) People in the audience afterward told me: „He just doesn't get the point." But which point didn't he get? It wasn't the point of the term 'open source'. That term says nothing about freedom. It says only that allowing more people to look at the source code and help improve it will make for faster advance of technology. The point that he missed is the point that 'open source' was designed not to convey: the point that users deserve freedom. Spreading the idea of freedom is a big job--it needs your help. The GNU project will stick to the term 'free software', and I hope that you will too)."

Three weeks ago Bruce Perens changed his mind too and resigned from the Open Source Initiative after a "dustup" in which Perens described Tim O'Reilly (an open source advocate and the head of book publisher O'Reilly and Associates) as "one of the leading parasites [sic] of the free software community." In the Linux Weekly News he published the following statement:
„One of the unfortunate things about Open Source is that it overshadowed the Free Software Foundation's efforts. This was never fair,... and a schism between the two groups should never have been allowed to develop. I objected to that schism, but was not able to get the two parties together. Another unfortunate fact is the certification mark dispute which has gone on between Software in the Public Interest and the Open Source Initiative for a whole year. That was entirely my fault.

Sadly, as I've tended toward promotion of Free Software rather than Open Source, Eric Raymond seems to be losing his free software focus. The Open Source certification mark has already been abused in ways I find unconscionable and that I will not abide. I fear that the Open Source Initiative is drifting away from the Free Sofware values with which we originally created it...."

Linux
Linux (named after its main author, Linus Torvald) is a GPL'ed kernel that implements POSIX.1 functionality with SysV & BSD extensions. (GNU/Linux systems are now available for Alpha & 386/486/Pentium/Pentium Pro. An m(otorola)68k port is in testing (it runs on high end Amiga & Atari computers). MIPS, PowerPC & Sparc ports are being worked on. You can FTP it from ftp.kernel.org in `/pub/linux' (USA) & from ftp.funet.fi in `/pub/Linux' (Europe).
(Ask majordomo@vger.rutgers.edu about mailing lists. See USENET newsgroups such as comp.os.linux.misc for news.)

Many computer users run a modified version of the GNU system every day, without realizing it. Through a peculiar turn of events, the version of GNU which is widely used today is more often known as "Linux", and many users are not aware of the extent of its connection with the GNU Project.

There really is a Linux; it is a kernel, and these people are using it. But you can't use a kernel by itself; a kernel is useful only as part of a whole system. The system in which Linux is typically used is a modified variant of the GNU system--in other words, a Linux-based GNU system. Many users are not fully aware of the distinction between the kernel, which is Linux, and the whole system, which they also call "Linux". The ambiguous use of the name doesn't promote understanding. Programmers generally know that Linux is a kernel. But since they have generally heard the whole system called "Linux" as well, they often envisage a history which fits that name....One CD-ROM vendor found that in their "Linux distribution", GNU software was the largest single contingent, around 28% of the total source code, and this included some of the essential major components without which there could be no system. Linux itself was about 3%.

By the early 90s the FSF had put together the whole system aside from the kernel (and they were also working on a kernel, the GNU Hurd, which runs on top of Mach). Developing this kernel has been a lot harder than they expected, and they are still working on finishing it. Fortunately, you don't have to wait for it, because Linux is working now. When Torvald wrote Linux, he filled the last major gap. People could then put Linux together with the GNU system to make a complete free system: a Linux-based GNU system. Putting them together, Stallman says, was not a trivial job. The GNU C library (called glibc for short) needed substantial changes. Integrating a complete system as a distribution that would work "out of the box" was a big job, too. It required addressing the issue of how to install and boot the system. The people who developed the various system distributions made a substantial contribution.

Aside from GNU, one other project has independently produced a free Unix-like operating system. This system is known as BSD, and it was developed at UC Berkeley. The BSD developers were inspired by the example of the GNU Project, and occasionally encouraged by GNU activists, but their actual work had little overlap with GNU. BSD systems today use some GNU software, just as the GNU system and its variants use some BSD software; but taken as wholes, they are two different systems which evolved separately. A free operating system that exists today is almost certainly either a variant of the GNU system, or a kind of BSD system.

The GNU Project supports GNU/Linux systems as well as the GNU system--even with funds. It funded the rewriting of the Linux-related extensions to the GNU C library, so that now they are well integrated, and the newest GNU/Linux systems use the current library release with no changes. They also funded an early stage of the de-velopment of Debian GNU/Linux. We use Linux-based GNU systems today for most of our work, and we hope you use them, too. But please don't confuse the public by using the name "Linux" ambiguously. Linux is the kernel, one of the essential major components of the system. The system as a whole is more or less the GNU system. Please use the term "Linux-based GNU system" or "GNU/Linux" when you talk about the system which is a combination of Linux and GNU.

http://www.gnu.org
http://www.opensource.org/
http://www.suse.de/~ke/free-sw/free-sw.html
http://www.linux.org/
http://www.ora.de/german/freebooks/os_tb/
http://www.linux-magazin.de/ausgabe.1997.08/Basar/basar.html

Stephanie Wehner

Privacy and Security on the net

This is a short summary of the talk given at this years conference in Rotterdam. It's an overview of the current dangers to privacy on the net and defenses against them. Furthermore it takes a short look at current methods to stay anonymous while accessing the net or publishing on it. For more information about the ideas mentioned follow the links given with the respective explanation.

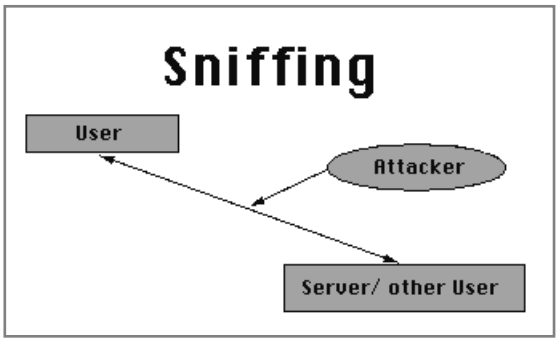
1. Privacy

1.1. Threats

Most people browse the web, send email or take part in online chats or irc without realizing how easily their data can be accessed by a third party. In order to understand the need for privacy on the net, its best to take a look at the dangers first.

1.1.1. Sniffing

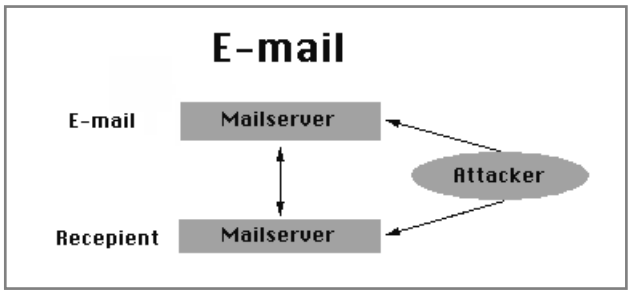
Your data goes over various lines on its way to a, say, webserver. First of all your phoneline, then the lines of your isp, various transit isp and at the end the isp of the webserver. Many people can theoretically gain access to it while it travels along its way.



This includes:
-- Anybody able to tap the actual lines. (e.g. telecommunication companies, government agencies, in case of cable internet maybe your neighbours)
-- Anybody with access to any of the hosts/routers. (e.g. your isps sysadmin, the sysadmins at the isp where the webserver is hosted, the admin of the webserver itself)

1.1.2. Email

Your Email travels around the internet in the clear, just like a postcard without an envelope. It costs even less effort to gain access to them than it is to tap your line. People that can easily get hold of them include:
-- Anybody with access to either your mailserver or the mailserver on the receiving end. (the sysadmin of your isp, the sysadmin of the recepients isp)
-- Anybody who can sniff your email while it is being transmitted. (see Sniffing)

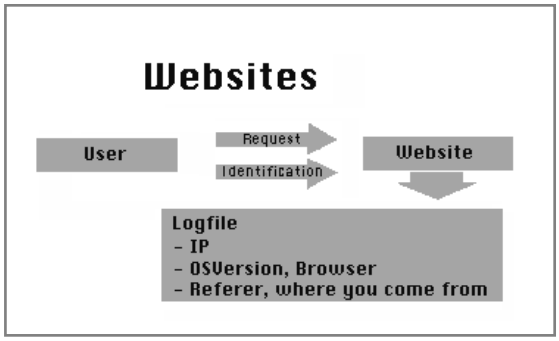


1.1.3. Serverlogs

When you access a server, for example a webserver, the server can always see which computer you're coming from and what you're trying to access. When you ftp a file, the server will usually 'remember' your IP (thats the number of your computer) and which file you retrieved. It'll put this in a so-called logfile. Sometimes it'll also log your email address, if you configured your browser to use this as the password for ftp logins. People with access to those logfiles are the sysadmins of the server.

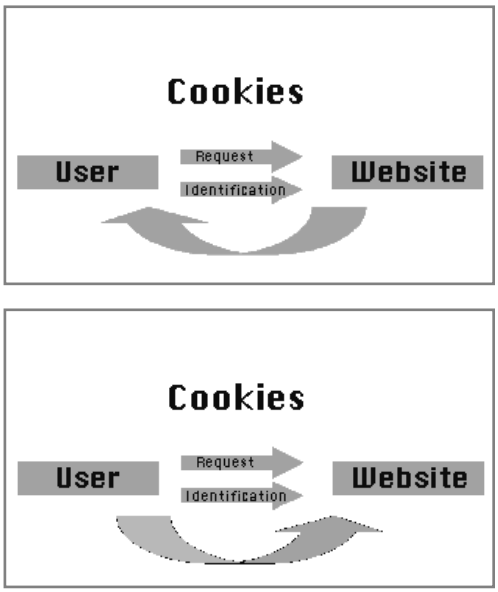
1.1.4. Websites

Websites in particular tend to create even more dangers to your privacy. This is because your browser usually transmits a lot of other information to the website.



This includes things like:
-- The URL of the website you came from. (referer) If you follow a link on www.yahoo.com to www.xs4all.nl for example, the webserver at xs4all could see that you're coming from yahoo. In this case you probably won't care about it, but I guess there's some more questionable websites you can come from.
-- The OS (operating system, e.g. windows,linux,bsd) you're running and the name and version of your webbrowser (e.g.netscape)
-- In some cases your name and your email address, if you

configured your browser this way.
-- Any cookies it previously stored on your machine. If you access a website, it will sometimes store some information on your computer, so that if you access it again, it'll know you've been there before etc.



A cookie contains a variable (say name) and a value (say Your Name) and the name of the website it goes with. If you run BSD or Linux with netscape, take a look at ~/.netscape/cookies

You might wonder who'd be interes-ted in that kind of information. In most cases it is mainly used for advertisement purposes. If you give out your email address, this is also very interesting for spammers.

1.2. Privacy Defenses

Getting a little bit paranoid now? Of course, most sysadmins will not touch your email, but maybe you'd still like to take some precautions.

1.2.1. Sniffing

To defend yourself against other people tapping your line, you need to make sure that they cannot read the stuff they tap. This can be achieved through encryption. The most common methods include:

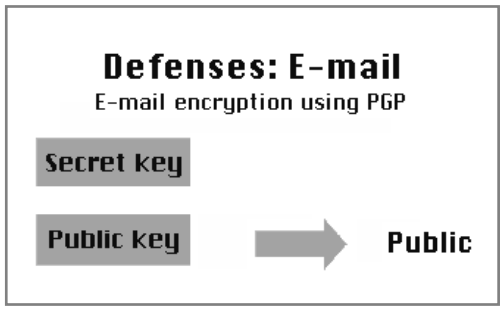
• SSL -- this is mainly used to protect webtraffic. It is build in your webbrowser. You can easily recognize if you're accessing a page using SSL at the url (https://) and at the sign your browser gives you. Netscape for example shows a little lock in the lower left corner. If this lock is closed you're being protected. When you click on the lock, you can view some more information about the page. If you're buying anything online with your credit card number, have a look if the shop uses SSL first.

• SSH -- this is interesting if you access hosts remotely with telnet or RSH. SSH is a replacement for this which will also encrypt your session. SSH is being made by SSH Inc. <http://www.ssh.fi>
But you can also retrieve versions for various Operating Systemsn (including Windows) from here: <ftp://ftp.replay.com/pub/crypto/crypto/SSH/>

• IPsec -- this is IP layer encryption, meaning it will protect all the traffic going in and out of your computer for example. You can only use this if the other side does so as well. This is useful if you want to access the office network from home or to protect the traffic between two seperate offices. For linux you can use Freeswan.
<http://www.xs4all.nl/~freeswan>
There's also a FreeBSD <http://www.r4k.net/ipsec> IPsec implementation.

1.2.2. Email

The same thing basically goes for Email. The most commonly used program to encrypt Emails is PGP. If you're inside the states you can get it from www.pgp.com, outside you can fetch it from www.pgpi.com
PGP used public key cryptography. This means that you do not have a single key (like a password) to encrypt your data. If you had any way to tell your friend in New York what this secret password is you might as well give him the whole message right away. Public Key Cryptography

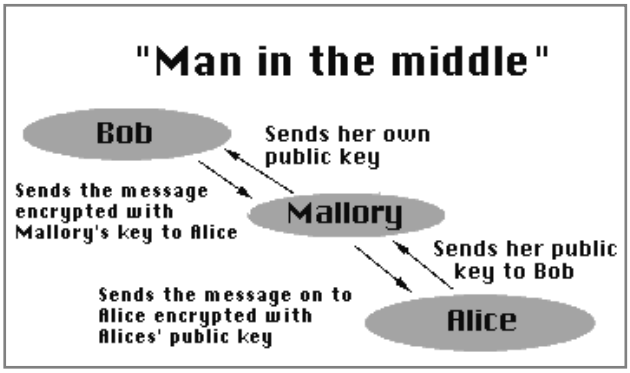


works with two different kinds of keys. One if your so-called secret-key, which you keep for yourself at all times. The other one is called public-key. The public-key can be given to anyone, put on a public keyserver or put up on your own homepage.

If you now want to send a message to your friend Bob in New York, you first get his public key (from Bob himself, or from a keyserver) and encrypt yur message using this key. Then you send it to Bob. Only Bob can decrypt the message with his secret key. As you can see this secret key never has to be transmitted.

Maybe you're wondering how you can make sure that the public key you got is indeed Bobs. It might not be. In the so-called 'man-in-the-middle attack', your secret enemy E, intercepts Bobs' public key when he first sends it to you and gives you his own public key instead. If you know encrypt the message to Bob with this key, E can decrypt it, read it, and then encrypt it again with Bobs real public key and pass it on to Bob. He could do this in both directions and you would never know that E is reading your email as well. PGP has the option to sign keys. Say you know Carrol, who also knows Bob. Carrol has the public key of Bob, and since she received it from him in person, she's absolutely sure its valid. She can then sign this key with her own key. Say you also have the public key of Carrol and you're very

sure about this, since she gave it to you at dinner last night. You can now use her public key to verify the signature on Bobs key. Since you know Carrol and trust her, you believe that this is Bobs real key.



This way you can circumvent the man-in-the-middle attack. This signature scheme can be extended until it forms the so-calle web of trust. PGP also offers another feature. You can also use those signature to sign texts or emails. This way someone else can use your public key to make sure it is really you who wrote this text.

1.2.3. Websites

Most of the dangers websites pose to your privacy can be avoided if you take a look at your browsers configuration. Make sure your browser is set not to give out your real name or your email address. You can also set your browser to ask you before accepting a cookie from a webpage.
There are also programs which help you manage cookies and make sure you don't tell the website where you're coming from. On of them is Junkbuster:
<http://www.junkbuster.com>.
You can also find more information about cookies at <http://www.cookiecentral.com>

2. Anonymity

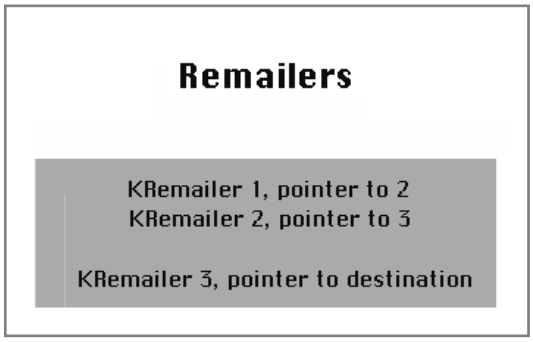
2.1. Anonymous Email

Anonymous Remailers allow you to send Email (more or less) anonymously. There are various different kinds of remailers available which offer you different grades of anonymity.

• The old style remailers simply match your own email address to a pseudonym. If someone want to reply to your anonymous email the server will simply match the pseudonym to your real email address and pass it on to you. The drawback of this is that this server knows which pseudonym goes with which email address. This means that if the server gets compromised or forced to give out this information, your anonymity is gone. anon.penet.fi used to be a service like this.

• Cypherpunks Remailers

• Mixmaster Remailers, they work in a roughly similar fashion as Cypherpunk Remailers. The idea is that of a chained remailer system which will pass your email along serveral servers to ensure that noone knows how to match your real email address to the pseudonym. In order to achieve this the packets get encrypted multiple times. You can imagine those encryption layers to be like multiple envelopes around your email. Your email is first encrypted with the public key of, say Server3, then with the one of Server2 and then with the one of Server1. When your email gets send, Server1 will decrypt his part and see that he's supposed to pass this on to Server2. After receving the message, Server2 also decrypts it (take it out of his envelope) and see that it has to be passed onto Server3.



Server3 now also decrypts it and see that it's supposed to be send to the recepient, say <joe@yahoo.com>. Mixmaster also 'mixes' the emails, which means they will not leave the server in the same order as they arrived. Instead the server will keep them for a certain amount of time. This is to ensure that no correlation can be made with your email arriving and emails being passed onto the next server.

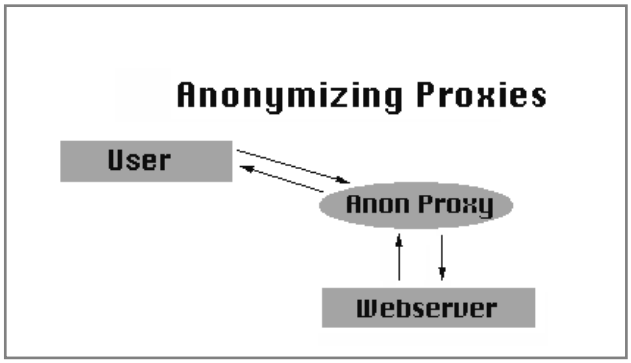
You can find a very nice descrption of this at: <http://www.thur.de>
For a list of available servers look at:
http://kiwi.cs.berkeley.edu/mixmaster_list.html

2.2. Anonymous Access

After all those privacy measures a server will still see which computer you're coming from. Perhaps you don't want anyone to know you're interested in certain 'questionable' or politically unaccepted topics.

2.2.1. Anonymous Proxy

Perhaps the most comonly used way to ftp or browse the web anonymously it the use of an anonymizing proxy such as <http://www.anonymizer.com> or <http://lpwa.com> This works in a similar fashion as the simple remailer service who just matches your email to a pseudonym.



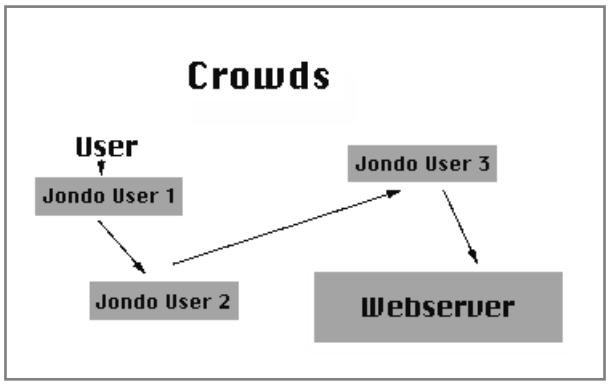
To make use of such a service just enter its IP and port-

number as a proxy in your browser. Look on the webpage of the provider of such a proxy what exactly you have to enter there. Once you're accessing a webpage now, your request will first be send to this proxy instead of directly to the webserver. The anon proxy will usually clear the referer field as well and pass your request on to the webserver, as if it was trying to make this request itself. This way the webserver cannot tell where this request actually came from.

The drawback of this method is that all security lies in the anon proxy. If it gets compromised or the admins are forced to give out information to authorities, you anonymity is void.]

2.2.2. Crowds

Crowds is a more complex system developed by AT&T. You can see it as some sort of anon proxy but then multiple which are chained together. Just like with the chained remailers this tries to prevent another party from knowing both ends of a connection. The first crowds proxy will run on your own machine. This will join the 'crowd'. Once you make a webrequest it will first pass it on to the proxy (jondo) running on your own machine. It will then randomly decide if it should be passed on to another crowds proxy or if it should fetch the page itself. If it decides to pass it on, it will select another proxy, encrypt it for this one and pass it on. The second proxy will the also randomly decide if it should be passed on or if it should fetch the page, and so on. Once a proxy decides to get the page it will parse the html and retrieve it all, including the pictures and everything included in the html and then pass it on all the way back to you.



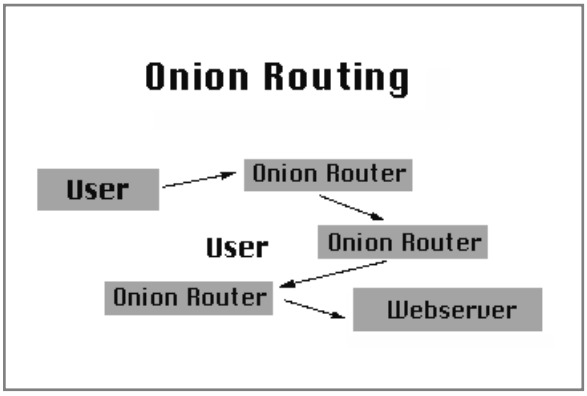
There's currently a perl version from AT&T itself. You can get it from their Crowds Page <http://www.research.att.com/crowds/>. You can also find more detailed information about crowds there. There's also a c version available at <http://www1.informatik.uni-erlangen.de/crowds/>

Crowds also has its drawbacks. Since the proxies run on peoples homemachines, who'll probably have isdn or even a modem, things will get very slow. Your request will probably travel accross various lines like this. Also your own modem line will get used by other people using your crowds proxy. Another thing is that it does not prevent traffic analysis. This means that if you'd follow the bulk of data from the webserver through the crowds network, you could find out who originated it.

2.2.3. Onion Routing

Onion Routing is a yet more complex approach to gain anonymity. It also works with a chain of proxies. However it also employs 'mixing' as described in the remailer section and encrypts the data in a similar fashion.

If you make a request it will first go to a proxy, probably running on your own machine. Comparable to the chained remailer network, the request will get encrypted multiple times.



After choosing a route through the proxy network it will first encrypt it with the key negotiated with Server3, then for Server2, and after that for Server1.

On its way back it will also be encrypted multiple times. The answer from the webserver will first be encrypted with the key established between the first proxy (the one you first contacted) and, say, Server3. Server3 will then pass it on to Server2. Server2 will look up where to send it next and encrypt it with the key it negotiated with the first proxy. It passes it on to Server1 who will do the same thing. At the end all the layers will be removed again and the reply will reach you in cleartext.

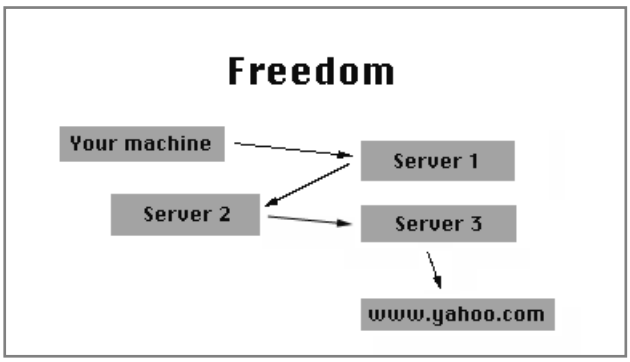
This is only a very brief summary of what it does. For more information refer to <http://www.onion-router.com> You can also find software and various articles about it there.

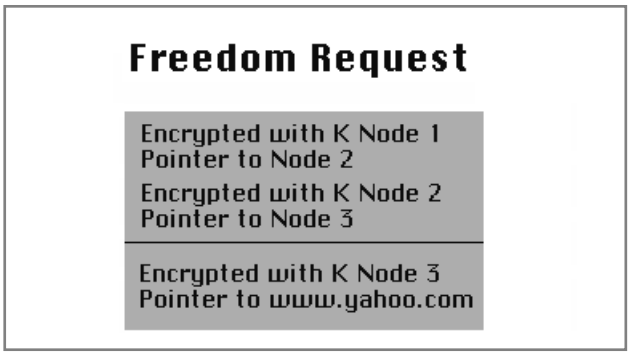
2.2.4. PipeNet

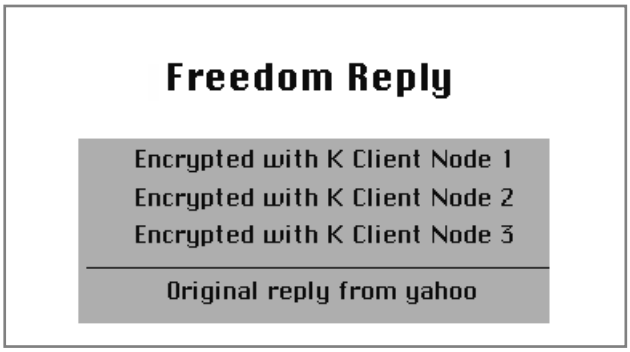
PipeNet works in a similar fashion except that there is constant traffic between the servers. This is to prevent traffic analysis. It has never actually been implemented. For more information refer to <http://www.jya.com/pipenet.html> or also <http://www.eskimo.com/~weidai/pipenet.html>

2.2.5. Freedom

Freedom is a commercial product developes by ZKS <http://www.zeroknowledge.com/> in Montreal. It works similar to Onion-Routing, but it also includes elements of PipeNet, since it puts cover traffic on the line.







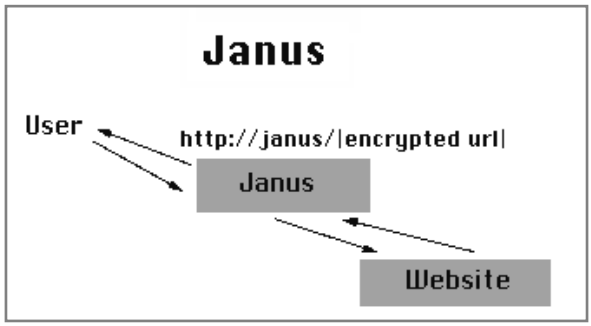
It's currently in the beta stage. You can sign up for the client beta at their webpage.

2.3. Anonymous Publishing

Perhaps its not enough to just access content anonymously. In some cases it might be interesting for you to publish your information anonymously. Of course the possibility for abuse is rather high in this case, but the question remains if for example a polical group, risking prosecution, shouldnt be allowed to publish their information safely. In the future certain content, such as drug information, uncensored news, etc might become illegal. In this case there has to be a possibility to retain free information by protecting the authors.

2.3.1. Janus

Janus is a very simple system to provide anonymity for webauthors. It works similary to an anonymous webproxy, just the other way around. The Janus server translates a request to the real webpage. If you want to access a webpage you use a url like this:
<http://januserver.com/[encrypted_data]>.The Janusserver will decrypt the rest of the url and retrieve the requested webpage. Before sending it back to you it will replace all occurences of the real url in the webpage with the encrypted one. This way you will never know the original url of the webpage.
Currently there's a Janusserver at:
<http://janus.fernuni-hagen.de> You can also find more information about the Janusserver there.

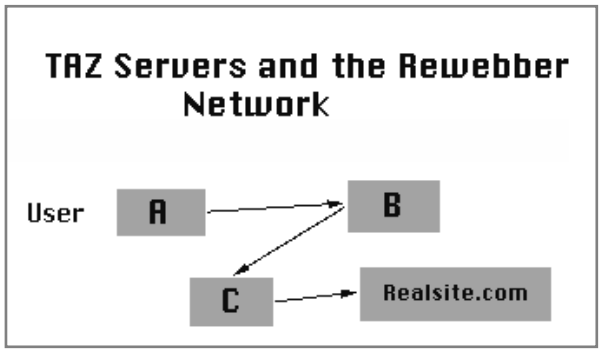


The drawback of this system is that all security lies in the Janus server.If it get compromised or the admins get forced by an authority to surrender their data. The webpage is no longer anonymous.

Another danger is that search engines index almost everything, some of them don't even pay attention to a robots.txt, telling them not to index. If there's any other link to this site it will probably get indexed, so that once you retrieved the page via janus you can find the orignal url with the help of a search engine.

2.3.2. TAZ and the Rewebber Network

The Rewebber Network is a chained form of proxies, similar to the a remailer network. Please refer to the descriptions of a remailer network or to the onion-routers. The advantage of this is that there is no single point of failure anymore.



In order to access a webpage via the Rewebber Network you will need to specify long urls, since there're multiple layers of encryption.
TAZ (Temporary Anonymous Zone) acts as some form of information server which will tell you the long encrypted url via a shorted identifier.

You can find more information about this in an article in firstmonday and at <http://www.isaac.cs.berkeley.edu/taz>

Corrine Petrus/ Marieke van Santen

Hacking
from a technical point of view

In our presentation we will approach the technical secrets of hacking. We will give a demonstration of the technical know-how and basic skills (in very short) one should have as a hacker, and will furthermore describe different categories of hacking. But we also reflect upon the fact, that, although we have been programmers, sysadmins and network managers for many years, it actually had never been a big challenge for us to become hackers ... So, practically we are no women hackers, but for this presentation we took a closer look to what, technically, hackers do.

The technical basis of hacking is a knowledge in network technology and the operating systems of web-servers and hosts, which are mostly UNIX/Linux or also Windows NT. But certainly you will also need to have certain skills in programming. The more, the better. Amongst others the most common programming languages are C, LISP, Perl, and Java.

All computers of the internet, local and wide area networks, are connected through TCP/IP technology. It is the TCP/IP (Transmission Control Protocol/Internet Protocol) protocol that glues all different computers and networks together, sends your packets correctly from one host to another and adresses the hosts. All kinds of communication lines are used: telephone, cable, glassfibre, wireless. At home you usually use a modem to connect your provider's modem, using telephone line or (TV) cable. To connect different networks there are routers; to translate between different kinds of networks there are gateways.

Data is transmitted between two hosts; since hosts often transmit and receive different kinds of data at the same time, using different protocols (HTTP for the web, SMTP or POP for mail, etc.), data "streams" are assigned to different "ports"; a port in this case is a virtual port, software based, and not an actual hardware port like a serial or SCSI cable. Ports are numbered; certain numbers are usually reserved for certain protocols (e.g., SMTP = 25, telnet = 23, NNTP (news) = 119). To see which ports are open on any given host, one can use a "port scanner"--a program that sends various kinds of data to common (or even uncommon) ports. Via telnet session to a specific port, you can make direct contact with the server program which runs on that port and send commands to it.

Talking about clients and servers in this case means not to talk about hardware, but about software. Actually the client and the server can run on the same machine. A client program sends a service request to a server. These requests can run automatically, or you can run them manually. A server runs all kind of server programs at the same time, e.g. HTTP, telnet server, mail server. These server programs are usually called daemons.

Each host has a unique address, the IP-number, which contains the number assigned to the network as well as the number assigned to a particular host. To find out an IP-address, one can query at a nameserver (there are different ways to do this); to follow the path that two communicationg computers are taking (often there are many different ways to get from point A to point B), one can do a „traceroute", which asks each host on the way to respond. The „ping" command allows you to find out if a server is running (if response is enabled on the target host), and the „finger" command (which is also often disabled) can sometimes give information about the users of a system and who is currently working on it.

To hack a server means to get unauthorized acces to it. Before one makes an effort to do so, it's wise to cover one's tracks, especially the IP-number through which you connected to the net. There are many ways to do this, but a common one is to use an indirect route to access the computer--sometimes a very indirect route. One way to obtain access is by cracking someone's login--that is, guessing or 'brute forcing' (trying hundreds, thousand, or millions) login and password combinations. Obviously, this takes a lot of patience, luck and/or programmming skills (or cracker tools, which are mostly problematic: You never know exactly what operations they perform, if you do not really have programming skills, you don't have control, and are also easily to be traced back!)--or dynamite the vault. To get access just to one area of a system is not very interesting; that's why a hacker's main concern is often to obtain passwords with the sole intention of becoming a 'superuser' or 'root,' someone with total control over the server ('root access').

But there is also a completely different way of hacking, which is software hacking (cracking). These hackers are mainly specialists in a specific programming language. Software hacking means to make changes to software after it has been compiled, after it is finished and ready for use or long in use already. Reasons to do that might be to hack password protected software, to remove the copy protection, to make different programs intercompatible or to use parts of the hacked program to extend the possibilities of one's own program, or just for fun and to find out all secrets of a program before it.

Some more hacker slang and what the terms stand for:

hacking: the term has already been examined by Cornelia, in her session on 'Women Hackers'. PIs. have a look there.

cracking: The act of breaking into a computer system. Contrary to widespread myth, this does not usually involve some mysterious leap of hackerly brilliance, but rather persistence and the dogged repetition of a handful of fairly well-known tricks that exploit common weakness in the security of target systems. Accordingly, most crackers are only mediocre hackers.

phreaking: the art and science of cracking the phone network.

spoofing: IP spoofing is a technique used to gain unauthorized access to computers, whereby the intruder sends messages to a computer with an IP address indicating that the message is coming froma trusted port. To engage in IP spoofing, a hacker must first use a variety of techniques to find an IP address of a trusted port and then modify the packte headers so that it appears that the packets are coming from that port. Newer routers and firewall arrangements can offer protection against IP spoofing.
E-mail spoofing is pretending to be someone else by stealing his/her e-mail address and using it for whatever purpose.
Web spoofing is copying an existing site, and trying to pretend to visitors that they are on the original, e.g. www.micr0so0ft.com

sniffing: means to intercept activities on the net, like sniffing your password, when you try to log in to a host.When you log in to a host your password also travels along all these nodes, this is where hackers install password sniffers!

nuking: To intentionally delete the entire contents of a given directory or storage volume. "On Unix, nuking is often used to express a final verdict. Nuke is a frequent verbal alias for `kill -9' on Unix. Generally, nuking is a term for attacks performed via the Internet or to specific systems and networks. These attacks have become common place on most IRC networks, but are also made on personal computers linked to the internet and networks.
E-mail-nuking (known as mailbombing) is also one of the things that people do, sending a large quantity of data to a person, to teach him a lesson.

virus: A cracker program that searches out other programs and infects them by embedding a copy of itself on them, so that they become Trojan Horses. When these programs are executed, the embedded virus is executed, too, thus propagating the infection. This normally happens invisibly to the user.

worm: A program that propagates itself over a network, reproducing itself as it goes. Nowadays the term has negative connotations, as it is assumed that only crackers write worms.

At the end of the session the question was raised if one could be safe on the net. But facts already Stephanie Wehner has pointed out in her presentation show that a clear „no" has to be the answer. And a private user can get hacked when he/she is using IRC or ICQ, or a virus can be implemented on your system when you download a file from the net.

The idea of our presentation was to demystify hacking. And we would say that hacking is not a difficult thing, IF you are familiar with the skills mentioned in the beginning. It is basically a handicraft in electronic technology. But until you are really able to hack something, you certainly have to spend a lot of your life in front of the computer.

Edited by Cornelia Sollfrank and Barabra Thoens

Yvonne Volkart

Infobiobodies:
art and esthetic strategies in the new world order

In the current reconstruction of the world order, and with respect to globalization and pancapitalism, culture and art have become important factors of more or less obvious means of policy. Especially since the overwhelming scientific and social development of communications technology and biotechnology, discourse concerning the blurring of the borders of gender and body has been producing and installing "new bodies." Therefore, the arts, as a field of the visual, hold a dominant and activist place in our growing visualized society which is dominated by styles and commodities. This paper questions several contemporary art projects in different media which all have in common that they deal with the theme of the technological and/or new biological body. From a cyberfeminist point of view, it analyses and critiques hidden ideologies and phantasms and then proceeds to question the possibilities of criticism and agency in the new world order.

Art as Factor of (Bio)Policy

The fact that for the last several years there have been so many art works dealing with the subject of new or mutant bodies whose gender is troubled is not simply an indication of real "trouble" going on, but rather, the reconstruction and production of bodies in trouble. It is visual, social and cultural control. As becoming visibile means coming to representation, it is crucial to ask: What kind of bodies are extensively represented by visual arts, bodies being influenced by and influencing popular images? Who are the most often named artists and in which contexts do they exhibit? Why do they prefer to show the dark sides of so-called scientific aberrations, and why are they so welcomed when they do? Which role does gender play in this game, and why are these artists so obviously able to reclaim the position of the symptom?

It is obvious that art actually maintains an important symbolic position in an expanding culture. Esthetics, style and beauty have become very essential and influence the everyday ways of living in a posthuman state of mind: ideas of hybridization, of constructivity and performing body and gender, i.e., the faith in the <technologies of body and gender> are our state of being. Although we daily practice a certain kind of esthetics, art did not mutate to everyday practices, but still keeps on holding a special and strategic position in this society. In the current reconstruction of the new world order, under the paradigm of pancapitalism, art is an important tool for the visualization of techno phantasms and global fantasies of the future and domination. It is therefore a factor of consolidation and affirmation. Sponsoring mainstream art institutions and events has became a crucial part of the cultural and political work of transnational corporations. Nevertheless, I do also believe in the possibility of esthetic resistance, although maybe not in the long run, as too many examples of reterritorialization are well known.

Artistic intentions, whose starting point is the reflection about both their own involvement in the field of culture and the ongoing universalism of technologies, are crucial from the aspect of symbolic politics. For my point of view, it is not so important to count their successes -- as it might be, and much more so, for activists. The quality of an artistic position which calls itself critical or engaged is -- in a very similar way to theory -- its function of reflection. But it is obvious that this utopian faith in the critical effects of a project or work, which can not be foreseen, has to be intended and realized seriously by an engaged agent. Thus when TV activist Dee Dee Halleck posts to the n5m3-mailing list: "What does it mean to talk of art in a society in which Philip Morris has a partnership with the Whitney Museum, in which Monsanto is sponsoring the rain forest exhibit at the Museum of Natural History? We are all living in a Banana Republic..."[1)] I have to essentially agree and say, yes, What does it mean to seek out a critical issue when all these big corporations have already incorporated the critical voices? But furthermore, I think that it is an overestimation of their economic power to think that they can control everything. Therefore, I find it important to think about ways in which one can act in the field of art without supporting the consolidation of hegemonic esthetics and ideologies. How can one resist the ongoing affirmation without having to be explicitly anti-capitalist in one's work? Thus, from my point of view as an art critic, it is very important to differentiate this universal and problematic term "art," which still pretends to be more reflective than, e.g., popular culture, but with regard to the mainstream, is also stabilizing the system. Therefore it is necessary to build (symbolic) spaces in engaged contexts and to initiate critical projects -- especially since the gap between mainstream and engaged art has been enhanced and dispersed in the last several years.

In the field of mainstream art, of information and biotech sciences, there is much affirmative traffic currently going on, and it is mostly being sold as a marriage between art and science. In 1995, e.g., the KFA Jülich, an institution for nuclear research, and by the way, one of the main sponsors of the first "Manifesta" in Rotterdam, initiated a series of exhibitions called "Art and Brain" with Hans Ulrich Obrist as its curator. Exhibiting artists were, among others, Mark Dion, Rosemarie Trockel and Carsten Höller. The latter has

earned his reputation above all as a Phd graduate of nature sciences and presents his art works as playful speculative models of science.

In 1996, German art critic Jochen Becker did some very informative research about exhibitions throughout Europe on the subject of biotechnology.[2] The most often named artists were -- among the "Young British Artists" Marc Quinn and Damien Hirst -- Carsten Höller, Rosemarie Trockel, Thomas Grünfeld and Inez van Lamsweerde. In 1998, Californian artist Jason Rhoades, who has since become one of the stars of the Biennale di Venezia, showed his new work "The Creation Myth" in the Zürich-based Gallery Hauser & Wirth & Presenhuber. A big trashy installation symbolized the brain as the site of "creation." Beyond this show, the gallerists invited some important neurologists from the university hospital for an intense, closed-door discussion with the artist where ideas and positions were exchanged. In the fall of 1998/99 in Germany and Switzerland, five museums organized a series of exhibitions called "Gene Worlds." In the Alimentarium Vevey (CH), which is a cultural institution concerned with the history of food founded by Nestlé, was a show about genetically modified food. The other museums hosted more or less anthropological, biological and current scientific aspects. The Bundes-kunsthalle in Bonn hosted a section based more on historical and cultural studies which ended in a presentation of contemporary art. Most exhibitions dealt with interactivity and slogans such as: "Mutation is something very natural; No evolution without mutation; You are a mutant, too," and people could handle chromosomes and behave like biotechnicians. I didn't see this exhibition, but I read the book[3] and a review in the Neue Züricher Zeitung. According to the journalist, the art part in Bonn was the only "critical negotiation of the possibilities and impossibilities of genetic engineering."[4] The rest must have been an attempt to persuade visitors of the benefits of genetics. Among the art works were, e.g., works from Thomas Grünfeld whose recombinant "misfits" have became quite famous.

Thomas Grünfeld: Misfit

One year before these shows (Fall 1997), there was a referendum against genetically modified food in Switzerland, and the advocates of this initiative produced a large book which included images of art as well as Hollywood horror films and popular lyrics.[5] The stated intention was to insist on a strong visuality in order to emphasize the horror of the potentially near future caused by biotech. The book included artists such as Cindy Sherman, Inez van Lamsweerde, Aziz & Cucher, Dinos & Jake Chap-man and Thomas Grünfeld.

But the book, as well as the key issues of the referendum, were totally unable to outline the ideological and economical backgrounds, not only of the current development of genetically modified food, but also of the recurrent, mostly pure emotional prejudices against genetically modified food and bio-engineering. It was striking to realize how in this visual argumentation phantasms of the so-called normal, whole and sane body were called forth. Most of the represented images seemed to be an aberration of a non-declared normality. And most of the written commentaries dealt with the idea that the image was a (critical) example of a horrible mutation caused by biotechnology. The hidden agenda of the publication was at least that biotechnology will cause invalid and handicapped bodies whose sexual organs become dysfunctional. But while this very didactic ideology despised this near future, the art works were much more ambivalent and, in a certain sense, worked even against the moral intention of the book. For example, the editors commented on Thomas Grünfeld's "misfits" with the following: "The misfits become a document of bad planning and not, as genetic engineers are always promising, an example of an improvement of the world we live in." However, Grünfeld's "misfits" do not only refer to biotechnology but also to a traditional German craftsmanship of constructing so-called "Wolperdinger" monsters, a mixture of various animals. Thus he draws a red thread of man's "essential" fascination of making monsters -- a simplistic linearity in which biotechnology may be only one step. It implies that biotechnology, like all technologies, is a harmless skill, a kind of childish bricolage based on a natural human drive for border-crossing and extension. The idea that bio-engineering is only an advanced form of bricolage is a very hegemonic one which artists like Carsten Höller or exhibitions like „Gene-Worlds“ or „Science for Life“ provide by allowing visitors to handle chromosomes and mutate cells.

Grünfeld's solo exhibition shows that he is more interested in interpreting the hip and fascinating side of mutation as an arising aspect of posthuman life than reflecting on ongoing biotech fantasies and economies. He merged his "misfits" and some "informe" sculptures with Comme des Garcon's mutant fashion style of the 1997 collection. This mixture as well as the "misfits" are an example of the fact that something like the deformation of the body becomes a style of fashion before it has been accepted in reality: Handicapped bodies are the new future style which you can create and model yourself, like a skirt or a T-Shirt. It is already obsolete to say that this mutant style is more exciting to all of us than every reinstallation of normality.

Fortunately, such undertakings have not been uncriticized. The Shedhalle, e.g., an art institution based in Zürich, has launched several very good and informative exhibitions dealing with the subject of culturalization and legitimization of biotechnologies through the arts.[6] In Renate Lorenz's exhibition "nature™, Fair against Gene- and Biotechnology" (1995) Berlin-based artist Natascha Sadr Haghighian showed her videotape "Touch the screen." In this documentary tape, she reveals the deep intertwining

of mainstream art and so-called science, or rather, economy. During a visit to London in 1993, Natascha went to the newly opened permanent exhibition "Science for Life" sponsored by the Wellcome Trust, a company which invests a lot of money in the development of the Human Genome project. Expecting to see old medicinal tools and documents, she was overwhelmed by the obvious high tech esthetics of the show. Thus she planned to do her video research in order to answer the questions raised by her experience: "Why does a company spend so much money on an exhibition about medical research? And why does it look like an art exhibition?"[7)]

Male Panic

According to their own words, the Chapman brothers, well-known representatives of the "Young British Artists," want to create "moral panic." The horror of this sculpture is that these male and female children are grown together like Siamese twins. They do not have sexual organs where people usually have them, but instead, their noses are penises and their mouths are vaginas, and not those of children, but of adults. Except for wearing Nike athletic shoes, they are naked. The topic, as the title suggests, is cell reproduction and sexuality, a kind of reproduction which is detached from the sexual organs. Despite what many critics assume, the Chapmans do not show "polymorphously perverted, multiple, nongenital-fixated orgasms."[8)] In the contrary, sexuality seems to be something disgusting, ill, unfulfilling and completely lost, because the sexuality of these children seems to be determined only by the sexual organs of adults, who are indeed absent. There are no other aspects of lusty streams and fluids, there is only the invalidity of the so-called normal. Although gender dichotomy seems to have gone away, there is an obvious fixation on sexual organs, like an attempt of an additional reinstallation of something lost: male sexuality and male subjectivity. Thus one gets the impression that there is only domination of the (male) Phallus which wants to penetrate the (female) mouth/vagina. The Chapman brothers are neither critical nor do they create other possibilities than phantasms of a whole, normal, phallocentric, and therefore, only male body. Most of their sculptures, especially those of the series "Chapmanworld" are bodies made from a plastic dummy with a homogeneous shimmering surface. Although they are grown together and although their genitals are not in the right place, or the bodies of some of the other figures are wounded and some members are cut off, all these bodies are not really fragmented in the sense of a deep questioning of the phantasm of a unity of the body. Both the anomalies and the form and materiality of these sculptures effectuate first disgust and horror but then proceed to provide a conservative ideology of beauty, homogeneity and smoothness. They are, in a deep sense, not ironic, and it is no wonder, by the way, that the characters they use in the catalog are gothic ones, which the Nazis used, too.

Dinos & Jake Chapman:
Zygotic acceleration, biogenetic de-sublimated libidinal model (enlarged x 1000)

Charles Ray, Mannequin Fall 1991 (244cm)

The sculpture "Mannequin, Fall 1991" from US artist Charles Ray causes similar effects of an unsolved convergence of the demonic which has turned into shimmering and at least enjoyable surfaces. Ray also uses the homogeneous body of a dummy and plays with horror and fear, in this example, caused by an oversized woman dressed like a secretary. She is obviously a cyborg monster whose gender (and class) matters, as the documentary photo indicates in which we see the artist standing beside his creation.

This sculpture has been shown in the exhibition "Post Human" (1992), curated by Jeffrey Deitch. This touring exhibition stands at the beginning of an extensive discourse in the arts about the importance of new digital and biotechnologies for the construction and production of new bodies and identities. The term "posthuman," though it was not new then, became an important one to many theorists, and the show has been cited very often. However, new technologies were more a metaphor than tools that were actually used. More than the show, the catalog was an interesting example of a libertarian, evolutionary-based, techno-determined ideology of posthumanism, in the sense of the praraphrase: With the right technology you can change everything, and construct whatever body you want. It contained a lot of images from popular culture and a lot of examples of body manipulations via chemistry, cosmetic surgery and Photoshop. But the art presented in the show, which included works by Cindy Sherman, Kiki Smith, Matthew Barney and Fischli/Weiss, was more or less a contradiction to the ideology of free choice and the positivism of body-altering technologies. It revealed the fears and horrors of an upcoming posthumanism by damaged, disgusting or replicant bodies.

According Deitch's own statement, this selection of art had the function of showing the usually not shown.

Homogeneous Surfaces

In all the examples presented here, there is a lack of an art-specific discourse on the economic interests and its involvement in biotechnology. It is very significant that in most of the exhibitions and catalogs which treat the subject of biotech bodies, a huge part of the information has been delivered by scientists or corporate people. The more emotional, rather non-intelligible, mute, and mostly negative aspects are derived from this kind of shock art.

Furthermore, a radical, subversive and ironic pleasure regarding these body and gender troubles -- as, e.g., Donna Haraway suggested in her "Cyborg Manifesto" or Judith Butler in "Gender Trouble" -- is also lacking. In most of these examples, and in many others from the same artists and beyond, the current horror of biotech is represented not only by mutant bodies, but especially by bodies whose gender is in trouble, whose borders between the male and the female are blurring. But instead of enjoying this -- as it may be enjoyed from the utopian point of view of a cyberfeminist perspective -- it is shown as a traumatic experience, as a kind of loss and castration. Many of these artists (and others I will discuss below) perform -- as a strong contradiction to the content of the work -- very homogeneous, compact and perfect works with smooth surfaces. Maybe the intention has been to show the dark side of the glimmering surfaces. But one also gets the impression that the opposite side of the demonic is the beautiful look. Both sides are strongly linked together and seem to presuppose each other.

Inez van Lamsweerde
Well, basically basuco is cocaine mixed with kerosene, 1994

This current enhancement of beautiful and smooth surfaces, which art provides, is very much dependent on new technologies and new media. I will explain this by using the example of photographic work from Dutch artist/fashion photographer Inez van Lamsweerde.

Inez van Lamsweerde's work is positioned in the center of the very crucial interface between art, fashion, new technologies, and future body issues, where also artists such as Mariko Mori or Matthew Barney can be situated. Her "Thank you Tighmaster" series from 1992 (the same year of the Post Human show) of dummy-like women without vaginas and tits was one of the most cited in the post-feminist discourse on the constructivity of bodies (keyword: gender trouble). These closed female cyborg bodies without holes and hair caused unpleasant and uncanny feelings, too.

With "Well, basically basuco is cocaine mixed with kerosene" (1994, first publication in "The Face"), van Lamsweerde brings together aspects which are crucial from the point of view of a cyberfeminist: posthumanism as a state of being, the cultural impact of (war) technologies and the female appropriation of war and patriarchal technology. In the photographic work we see two very artificial women, dressed in hot pants, plastic-like tights and short T-Shirts, sitting on their sport bicycles, one giving a rocket ice to the other. Behind them on one side is a lake or a river, and on the other side, a lot of fire and smoke, and we see a rocket launching on the same level as the rocket ice. The sky is very blue and the sun is shining. "Well, basically..." tells us that two women are taking over and mutually sharing the phallic power of technology as it is represented by the rocket, the rocket ice and the bicycle. The time in which the image is situated is not so clear; the launch of the Challenger space shuttle signals the early 80s, while the clothing indicates the mid-70s, which are indeed also trendy today. Anyway, it may be the Cold War, which was very important for the development of high technology, synthetics (the garment industry and fashion) and bio-engineering. Or its aftermath. But it could also be today, with the rocket as a heritage of that passed time. This image shows the transfer of war technology to pop and everyday culture (rocket ice), which helps to stabilize technical fantasies. The women seem to be the offspring of this NASA technology; they are totally stereotypical beauties, one with an old-fashioned hairstyle, which we know well from (war) films of the 40s. This might suggest that although there are new technical possibilities, the women remain the same. They are still fetishes of male desire. But beyond that male desire, there are female desires, too. These women want to have the phallus, and want to enjoy what they shouldn't have. They are strong and appropriate male technoculture for themselves.

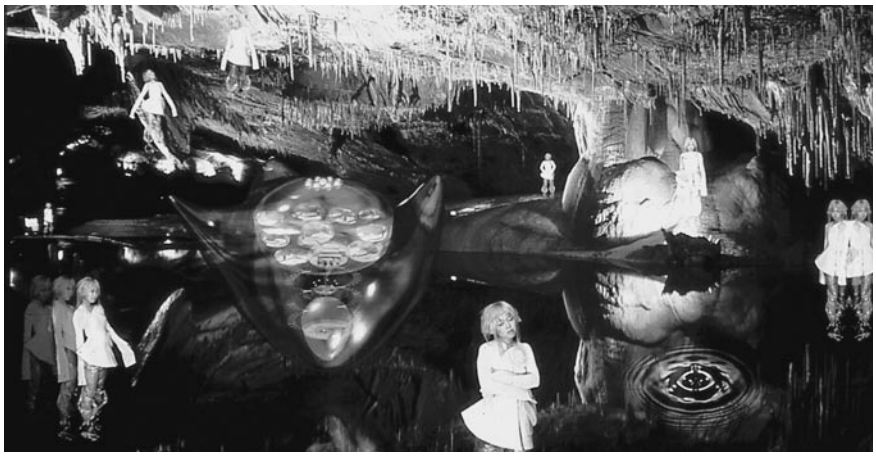
This image, which condenses the posthuman state of being in which everything is artificial and not innocent, may also be a reflection of Lamsweerde's own technologically based work with Photoshop and Paintbox: The homogeneous surface, often transformed into an enjoyable and consumable image, is not neutral, but rather, forms our way of perceiving and living in reality. Compared to real life and to technologies which intervene in the real body (biotech, e.g.), it is quite simple with these new visual media to redesign beautiful, smooth surfaces in which every disturbing object is eliminated. Unfortunately, especially in

the arts, there is not very much discourse about this performative aspect of new technologies and media and how this visual control is taken as real. Thus the ideological effects of the seemingly formal means are one factor in the process of redesigning new bodies. The other one lies more directly in the concept of the drawn bodies whose homogeneity and closeness come mostly from white male fantasies.

The symptom is always female

Thus, in this discourse of homogeneous surfaces, which provide uncanny feelings and dominate the so-called "critical" visual discourse about future bodies, follows another significant variation. Its appearance is not demonic and dreadful but sweet and lovely. I would like to illustrate this topic with the works of New York-based Japanese artist Mariko Mori, whom the art world actually regards as representative of the approaching cyborg world.

Mori began her work by posing and exaggerating stereotypical female situations of Japan's everyday life. She performed "Tea Ceremony" (1994) in a shopping mall, dressed like a woman from outer space, or ventured into the subway system wearing an astronaut's outfit. In the photo „Empty Dream" (1995), she was a mermaid in an artificial, covered Japanese seabath. She captured these strange situations in her double-bind role as a Japanese girl and woman from outer space in monumental, perfect photographic works. Later, the subject of her photographs and 3-D installations became more esoteric. In many works, she performs as a priest/goddess/Madonna/woman staged in a virtual, cosmic and esoteric world of fluidity, femininity and desexualised eroticism. In the photograph "Mirror of Water" (1996-98) [image], we see her, replicated many times over, with blue hair, wandering around in a mysterious stalactite cave in which a strange, futuristic vehicle is located. In a similar way to van Lamsweerde's "Well, basically...," this image could demonstrate in a very ironic sense the idea that old female stereotypes (in this case, romantic ones of virgin/water/cave/uterus/Novalis's blue flower) do not cease to exist with new technologies, but that on the contrary, new variations have been developed. On the other hand, this image is not so clear in its historical and social references in the way that van Lamsweerde's is, and it lacks the acerbic humor which turns the image from Lamsweerde into a precise visual statement. Here, the romanticism represented falls back to the image itself and seems to reconcile nature, femininity and technology. Thus one has to ask: What does it imply to recite female stereotypes without at least contextualizing them precisely? It seems that only because we already know these clichés so well is Mori able to play so sovereignly with them, to make allusions and to create wonderful and strong images. But she has nothing else to add to these popular codes, and so, in the end, these images remain boring and meaningless.



Mariko Mori, Mirror of Water, 1996-98

The US art historian Norman Bryson wrote about Mori: "I surmise that there may be a good deal of resistance to Mori's tableaux, often taking the form of an unspoken accusation that this is the work of a Sailor Moon princess, utterly spoiled by the luxuries of their techno-toys. But there may be a rather different way to understand her strategy, which is to m i m e the process of capitalist production/ consumption, to personify the energies of the current stage of the social formation, and by wholly yielding to popular culture's power-from-below, to give it an intelligible outline and form, portraying the present psycho-social moment by occupying, not the place of the critical analysis, but the place of the critical symptom."[9] Bryson is right when he assumes that Mori is positioning herself at the place of the symptom. But this position has nothing to do with something critical or resistant. Mori's highly seductive and hybrid visual quality, her condensation of female stereotypes, her perfect images of reconciliation fit too well with mainstream esthetics, not only yielded by popular culture, but also from so-called high art, which still maintains the status of being more critical than "culture from below." I don't believe that in this time of medial homogenization of real differences on the one hand, and of the intensification of ideological differences on the other, the strategy of mimetics is subversive enough. A critical position is one which opens the gap and shows us that there is no reconciliation, that there are breaks and shifts and scars. A critical approach needs metaphors of system crashes and possibilities of intrusion. For me, this kind of symptomatic art, however interesting it may be in the construction and

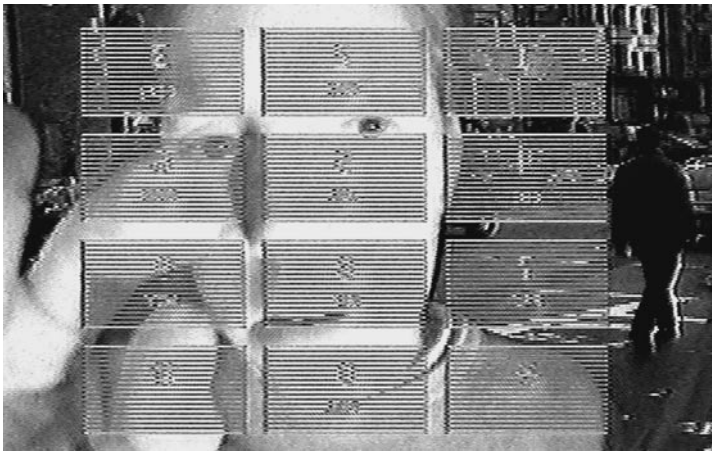
Yvonne Volkart, presenting 'Miko No Inori', by Mariko Mori, Rotterdam, 1999

hybridization of ongoing phantasmatic and ideological images of women and capitalism, plays too strong a creative role in the consolidation of a homogenic universal techno world without differences.

Beyond Bryson's remark that Mori occupies the place of the symptom of capitalism, I have to add that she occupies the traditional symptomatic place women have always occupied: She represents the crisis with her body and reconciles nature with technology, mankind with the machine. And it is not clear what -- beyond this significant function as a mediator -- the profits for women might be. Or does Mori in her function as artist/model/priest/cyborg tell us of a future which will be female only? Is that the reason why there is so much peace and harmony in her works, for there is no longer a male subject who struggles against the loss of his manliness and subjectivity as in many of the works discussed above? Does Mori show us in her work that the takeover by technologies in posthumanism leads -- as Sadie Plant already assumes -- to a universal femininity? If that is so -- and I think, if you look at contemporary art you can realize how strongly the male subject is represented and still represents itself as one who is in a crisis and that a lot of his horror and fear is about becoming female, in other words, the crisis of male subjectivity and the loss of manliness is traditionally represented as effeminization[10] -- there are many indications which reaffirm this thesis.

In "Host" (1997, a 7 min 36 sec single channel video), she is a young woman seeking help for her computer problems. "As the participant indulges in a virtual conversation about a troublesome relationship, the session instantly becomes an amalgamation of daytime television and tabloid, wherein the surveillance camera becomes the eye of the media." (From a flyer's description of the exhibition "Zonen der Verstörung," Graz 1997). Although the computer voice is very nice in the beginning and promises help if she enters her personal code, there is no help for her and she has to leave, remaining frustrated and lonely. Lucas writes: "The ending mimics the mundane routine of a bank transaction, yet with the seriousness of religious propaganda, 'if you would like to save your life..', 'please enter initials..', 'To exit this program, please use the escape button.'"

The woman/artist/cyborg/worker is located on both sides: She is a user and a system operator at the same time. What we see here is not a new homogeneous and closed techno-body with new abilities. We see the performing of a body, the female body, as one which is overwhelmed, intruded and completely constructed by new technologies and media. But not in the sense of an upgrade or enhancement of possibilities. It's rather a new body condition of total fluidity and porosity. For such a body it makes no difference on which side of the system it is positioned: The borders are blurred, subjectivity is lost, agency is drawn into a machine-like play of interactivity. So the sysop, though she seems to have the more active role, is performed by the flows and streams of the technologies like the user, too. Lucas also poses the position of the symptom, of the convergence of a real body into streams of data and information processors. However, this symptomatic position does not lead to the state of a posthuman goddess in a decontexualized techno future.



Kristin Lucas, screenshot from'Host', 1997

Enter Body Space

Thus the question remains: What kind of profit from this posthuman effeminization of bodies (and working conditions), from its mechanization and virtualization do those "agents" have who call themselves "woman," not in the future, but already, now, and here, in the technically highly equipped Western World?

Unlike the artists discussed above, New York-based artist Kristin Lucas asks in all of her works this basic question. Like Mori, she is the protagonist in many of her works, which are video and internet works and installations, but unlike her, she uses low-tech, old computers and programs, and the surfaces are not perfect and homogeneous.

The situation represented by Lucas could be a separation from living conditions which do not lead to heaven but to traumatic experiences of powerlessness which seem to be especially female.

Lee Bull, cyborg 1, 1998

This dark side of the so-called female future is shown by South Korean artist Lee Bull, too. In one of her various works and installations she constructed sculptures made of silicon, hanging from the ceiling and called "Cyborg W2." She shows that the cyborgs are above all female, that they are male projections. However, these incarnations of male fantasies are damaged; they are sinister, even uncanny -- a feeling which results from the contrast between the smooth surface of the material used, the obvious elaboration of female sex characteristics on the one hand and the fragmented bodies/corpses on the other. It becomes evident that biotechnology has not been invented for female emancipation.

I would like to end my argument with Australian artist Francesca da Rimini's web work "Dollspace" (1997) which explores female desire under the conditions of virtuality. It is a complex web environment with various sites, hypertext fictions set in pictorial backgrounds and links to politically engaged sites. Gashgirl, or Doll Yoko, the female fictive figuration is constructed above all by texts (summaries of Lambda MOOs, etc.) which reflect her history and her (sexual) desire. Doll Yoko has risen from a muddy pond in Japan where women used to drown their unwanted, female children. She is a ghost, as in "all women are ghosts and should rightly be feared," and has among other things monstrous desires for young boys ("riverboys"). As doll/gashgirl/ghost, she is not a natural born woman, but rather, a posthuman copy/"essence" evolving from the dark abysses of patriarchal society. Though she is a doll, she is not smooth and homogeneous like Barbie; she is gashed, killed, violated, full of fantasies of power and losing control, of cum, of fucking and killing, of getting fucked and killed herself. Doll Yoko, who is at the same time dead and alive, who wants to destroy and to be destroyed herself, is a deeply paradoxical figure, situated in an in-between space called "deep doll space zero" -- a space behind the closed eye through which the visitors have to enter in the beginning.

So far, this symbolic space has not been investigated and represented much by female cultural workers, whether because of its deep political incorrectness or for other reasons. Doll Yoko's/the narrator's/the author's (the sentences are often articulated with "I") wild feelings and emotions, circulating between activity and passivity, focus on the topic of losing boundaries in digital space: of sex, gender, subjectivity, agency, of the writer and the reader, of the figuration and the user. Who is this "I" in the end who says: "genderfuckmebaby"? This "I" is totally splitting into various agents and we, the readers, participate in this dissolution. What does this sentence and all the other sentences in this piece imply? They talk of experiences, of enjoying loss and the violation of boundaries, and they have a kind of jouissance which goes beyond the mere textual "death of the author" we know from male theorists like Roland Barthes. These sentences and their images become stubborn figurations of many voices and embodiments of Doll Yoko. The kind of jouissance which is proposed here completely deconstructs gender dichotomies and stereotypes. It is far beyond any relief; it is "haunting" and allows us to fall into the depths of psychic streams and desires in virtual and real worlds.

Stubborn Bodies of Work

The common topic of all the works discussed in this paper is the fact that the obvious fear of the current social and political enforcement of new information and biotechnologies is represented as a body and gender issue. In most of the rather male works I have analyzed in the beginning, the trouble with losing identity, subjectivity and agency in the posthuman world is visualized as gender trouble, as a horrible thing going on with reproduction, sexuality, sexual organs and sex/gender. It is represented as the fear of losing sexual identity, of getting a closed body without holes, and in the end, of becoming female, i.e., a female cyborg. In opposition, Kristin Lucas and Lee Bull make evident that the worst thing which new technologies may cause for women would not be the loss of their reproductive abilities or sexual identity, but rather, that they would never cease being woman. While Mori shows this arising female state of being as a kind of reconciliation with patriarchal culture, Lucas, Bull and da Rimini reveal the social and political functions of these expanding new technologies as tools of visual, and therefore, cultural control.

Francesca da Rimini, screenshots from 'dollspace'

Lucas's and da Rimini's cyberbodies convinced me that the display of phantasmatic aspects and dark sides of society and the posthuman condition can still be critical if the contexts which cause fear and inequality are articulated precisely and beyond simple demonization and the universalism of new technologies. The elaborating of the shifts, or even breakdowns of ideological systems, is important. Therefore, I see the representations discussed above of the dark sides of the promised future as being less problematic than the affirmative handling of a homogenized repetitive esthetics of whole bodies. However, what seems to me most problematic and ambivalent is that both are linked together, as I pointed out in the discussion of the works of the Chapmans. Thus, I would appreciate seeing many more works developed which are at the same time critical, ironic, hybrid, monstrous and joyful.

After all, I still believe that criticism, distance and engagement are possible positions in a ongoing virtual world. But I consider the strategy of mimicry and exaggeration -- as it has been developed (beyond the quotation of Bryson) especially in the feminist and postfeminist discourse (Luce Irigaray, Judith Butler, Rosi Braidotti) -- in the age of posthumanism as highly problematic. Although it became a truism that simulation and virtualization are massively constructing reality, people do not cease to believe in "what they have seen with their own eyes" (see, e.g., the film "The Matrix"). In a time in which the original is one image amongst others, it makes no sense to exaggerate or mime something in the same way. As in posthumanism, everything is constructed and exaggerated, i.e., the strategy of mimicry has already become a capitalist strategy, and you have to engage in constructing a change of perspective. If you really want to reflect something, you have to subvert the codes in a deeper sense than with mere mimetics. You have to name, appropriate, subvert and pervert the ongoing codes (of information, bodies, etc.) as especially Lucas and da Rimini do. In a world in which everything is laid out on the same visual level and in which everything is situated within, including yourself, you have to create symbolically an outer space or an in-between space, but you cannot reduplicate the same one-dimensional, condensed hegemonic space and think that this wouldn't be affirmative, or rather, not stabilizing ongoing hegemonies.

Some of the works discussed here are good examples of "artworks" as useful tools for reflecting the current techno universalism, gender conditions and female fantasies of desire and subjectivity. The technologies they use, and quite simple technologies they are, by the way, prods them to take a distant view of the current techno armament and shows clearly that for critical reflection, it is not necessary to use the latest equipment.

It's not important for me to think about the idea if such statements may finally be eaten by the global capitalistic machine. It should be enough to build different esthetics and symbol spaces, for I believe that a work, if it has precise reflective standpoints in its visual negotiations, can not be completely reterritorialized by pancapitalism. A resistant work has to be very clear, but even then, it is not safe from becoming a productive part of the capitalist redesign of the world.

Edited by **David Hudson**

1) quoted in the n5m3 program folder.
2) Jochen Becker: Abenteuer Forschung. In: Springer, Hefte für Gegenwartskunst, Oktober/November 1996, p.30-36.
3) Kunst- und Ausstellungshalle der Bundesrepublik Deutschland GmbH (Hg.): Gen-Welten. Köln 1998.
4) Stefana Sabin, Fröhliche Gen-Welten, in: Neue Zürcher Zeitung, October 13, 1998, p.46.
5) Daniel Ammann/Zvjezdana Cimerman (Hg.): Kunst und Gentechnologie. Werkbeispiele aus bildender Kunst, Photographie, Musik, Literatur, Film, Theater und Kabarett. Basel 1997.
6)Important exhibitions were "game grrrl" (1994) , „nature™“ (including CD-ROM) and „when tekkno turns to sound of poetry“ (1994, Berlin 1995). Publication: „geldbeatsynthetik“ (ed. by BüroBert, minimal club, Susanne Schulz), ID-Archiv, Berlin 1996. Further texts were: Sabeth Buchmann: "Von der High-Tech-Tauglichkeit der Kunst oder Wie Reaktion mit Dissidenz verwechselt wird", in: Die Beute, Winter 1995/96, Yvonne Volkart: „Mutieren oder sterben?“ In: Springer, June-Sept. 1997.
7) Natascha Sadr Haghighian: Science for Life. Wellcome Trust. Quoted from geld.beat.sythetik, p. 248.
8) Klaus Biesenbach und Emma Dexter in the foreword of the catalogue “Chapmanworlds”, London/Manchester 1996.
9) Norman Bryson: Cute Futures. Mariko Mori’s Techno-Enlightment. From: Parkett, No.54, 1998/1999, p.80.
10) I discussed this topic of the crisis of male subjectivity and his horror of becoming female in some former (German only) essays: “Hysterie. Zur Symptomatik künstlerischer Strategien heute. In: Springer. Hefte zur Gegenwartskunst, Vienna, June/July 1995. Or: Phantasmen der Reproduktion. Katalogtext zu den Videoarbeiten von Björn Melhus, Hannover 1999.

Verena Kuni

The Art of Performing Cyberfeminism

Extracts from a lecture given during the "8th International Performance Conference: networking meeting", Frankfurt am Main, 13-16 of May 1999

In contrast to the majority of the other contributions to this reader, the following reflections were not part of the "Next Cyberfeminist International" in Rotterdam, but relate to another cyberfeminist event that took place in spring 1999 in Frankfurt am Main, Germany. In the course of the preparations for the 8th International Performance Conference organised by ASA European performance network (see: http://www.asa.de, ASA stands for: Art Service Association) that was to take place in Frankfurt in may '99 as a "networking meeting", the Frankfurt based ASA members who planned the meeting got in touch with me to get some hint to relate the field of performance art with the field of art in electronic networks.

Asked for possible contributions, I proposed to dedicate one day to the performance of body and gender in the context of electronic media, thus bringing together important issues of performance art (like "the body", once and actually again being central to this field, but also the shift from early 'essencialist' body art to more conceptual based practices to a new theatricality nourished by theoretical reflection) as well as concepts and practices of (artistic) networking in "meat space" together with those that take place in the so-called "cyberspace" of electronic networks, with current notions of art on the net and last but not least that what might be called "net.performance" in a more or less literal sense. Regarding not only the fact the mere number of women artists invited to the rest of the programme was definitely poor, but -- and this was far more important for my decision -- undisputably the major competence in the previously quoted issues is to be found in the field of cyberfeminist theory and practice, I consequently decided to give the whole thing a suitable proportion by combining the performance lecture Stelarc was already invited to give as the "big act" the organizers wished to provide for the evening public with a row of equally "big acts" that would offer an insight into this area of theoretical research and artistic practice: Claudia Reiche, whose reflections were dedicated to the human body as a terminal to display specific seizures effected by it's scientific representation; Helene von Oldenburg, who presented new information on the impact of future developments on our daily life to be discovered by further research on the SpiderBug that is already "browsing our brains"; Cornelia Sollfrank, who gave insights in the art of hacking and its' possible applications in the field of cyberfeminism; and Margarethe Jahrmann, who led with her"SuperFEM performans", a glamourous piece of work that combined high tech artistic practice with a strong theoretical background dedicated to the development of feminist avatars, directly into the very heart of net.performance art.

Additionally, as members of the core-group of the Old Boys Network, Reiche, von Oldenburg and Solllfrank gathered with Faith Wilding and myself for an "Old Boys Networking Workshop" to provide the interested public with a concrte example of cyberfeminist networking practice. Asked by the organisators of the conference to provide a kind of introduction relating the conference theme, networking, to the field of artistic practice in the context of electronic networks, I started the day with a kind of double feature: During the first part of my lecture I tried to bridge the gap to the first day which was dedicated to different notions of classical performance and it's relationship to a more or less classical understandig of 'networking' in and between performance groups by giving a brief overview of the current state of the world wide web as an area where information technology and different modes and politics of representation merge in a specific way, followed by reflections on the conditions under which artistic practice, and especially artistic networking happens to take place in this "contested zone". While referring to this introductory part only with a rather short resumé of some of it's keynotes, in excerpts from my conference lecture I want to focus mainly on the second part where my pur-pose was to relate these more basic reflections to the field of artistic strategies of performing (in) networks.
Now let us step right into content zone by taking a closer look on the two terms neatly coming together and merging into the sounding formula I chose as head-line for some thoughts on.... performing cyberfeminism!

1. Performance

Rather than making use of the German notion of 'Performance' which is more or less limited to the field of fine arts, I want to draw my starting point from the broader notion of the term going back to it's use in anglo-american

language, where it refers to 'acting' or 'acting out' not only as acting on an 'artistic' stage (be it on theater, be in any other artistic context), but also to acting on the stage of life in general. Additionally -- and this will be even more important for my following theses --, speaking of 'performance' in this broader sense I would like to recall the linguistic term of 'Performanz' circumscribing the concrete use of language to 'act in the act of speaking', i.e. to use a medium of communication to communicate and to act by the way of this use of the medium in the same time.

2. Networks

Further, let us try to recall a basic, however simplifying definition of networks by proposing that a net(work) can be seen as a matrix where knots as entities or condensations of energy are connected to each other by different kinds of relations or junctions, while the quality of a network will depend on the strength and the density of these relations and the abilty of the knots (or nodes) to built up those relations, to keep them and to use them.

3. Performing Networks

Considering my notion of 'performance' as sketched out above, for a reflection on the conditions and possible efforts of networking I feel inclined to take the view that a performative use of networks is one of it's basic conditions, i. e. that it is central whenever coming in touch with the idea of networks one decides not to remain a passive observer, but to build up, to develop or to work with networks. In other words: networking itself is (a) performance. This in mind, of course any discussion about networking and networks will have to keep an eye on who is making use of a medium of communication, under which conditions this use is being made, to which goals and so on.

4. Electronic Networks and the World Wide Web

While all this seems to be for granted for any kind of network based on personal relations be it an electronic network or not, it is far not necessarily the case for the so-called World Wide Web. Technically, the WWW is a surface made up of hyperlinked documents filed by different organisations, institutions, companies, groups or individuals on different servers, physically located all over the world. It is important to state that in it's present state this network first of all is based on technology and only in part on textual connections. Therefore, even if themselves guided by individual interests and textual concerns, users can browse through these documents, skipping from page to page regardless whether there is a texual link or connection between those pages or not.

Keeping in mind that any network is formed by it's users, one could say that while there will be always a multiplicity of textual networks based on the very structure of the WWW (some of them built up con-sciously by connecting the documents via hyperlinks, others built up virtually via the use of those browsing through and thereby connecting documents temporarily by passing them), the WWW itself is based on the representation of communication as well as on the communication of representation(s) rather than of communication in the true sense of the word. Thus, one could state accordingly that, rather than actually being a network the WWW is the representation of a network.

5. The WWW as an 'Arena of Representation'

Facing this, do we have to admit that in the end the World Wide Web seen as a whole is nothing but a big surface, a window display dominated by some global players patronizing enough to leave some of it's angles for smaller communities to play with their hobby horses and eventually to present them world wide as well? Maybe.

But if the WWW indeed can be seen as an arena of representation centered on issues like public appearance, representativeness, the demonstration of power as well as the establishment well known power structures being veiled and therefore easly accepted by consumers via the wide spread delusion of cyberspace as a kind of promised land, it will be the more important to develop strategies that allow to reflect and to criticize these structures to (re)gain personal as well as political agency within this contested field.

Regarding the fact that the WWW as an arena of representation is founded on as well as obtained by it's apprance and function as a graphic interface operating with pertinent image and representation politics, it should be especially up to those who are professionals in these fields, be it artists, be it art theorists or historians to be aware and take care of these concerns, as well as engage and search for appropriate strategies and solutions.

6. The art of networking on the WWW

Following, to perform networks on and within the World Wide Web it is important not only to build up alternative structures for community and communication, but also to reach for creative forms of criticism -- not only "to show and to tell", but also to act.

How may this work? Especially facing the fact that -- in contrast to all bigmouth euphemisms and (post)modern myths being spread -- the so-called new media show significant tendencies to mirror the very same power structures and politics of representation we already know from the so-called Real Life. I am sure one will not have to reinvent the wheel. Rather, it should be possible to refer to strategies already introduced and improved within the field

of artistic activism. Stating this, I am well aware that wherever 'art' and 'activism' come together -- sometimes to collide and to clash, sometimes to set free explosive reactions in way that might have a constructive effort --, there is a kind of 'liaison dangereuse' one should observe carefully. And if, from an (art) historic point of view, it can be said that in the second half of this century in the western world artistic activism "emerged in the mid-1970s, expanded in the 1980s, and is reaching critical mass and becoming institutionalized in the 1990s", as Nina Felshin writes in her book "But is it art?" (Seattle 1995). One might see a similar, but -- related to the rapid developement of the medium in general -- quickened development already taking place in the field of net.art and net.activism.

Anyway, there are some good reasons to hold on and to recollect some central features and strategies. Activist art can not only be characterized by pointing out already existing parallels to artistic features and strategies on the web in general, but especially showing why it still may be interesting to follow some of it's footsteps.

7. A brief Excursion into Artistic Activim and Activist Art

To name some of this features, I would like to follow again Nina Felshin by citing some of the general -- however kind of idealizing - observations she provides in the introduction to "But is it art?", by this pointing out those I regard as appropriate to be related to the field of artistic networking as well.

"Activist art", she writes, "in both it's forms and methods is process- rather than object- or product-oriented, and it usually takes places in public sites rather than within the context of art-world venues. As a practivce, it often takes the form of temporary interventions such as performance or performance-based activites, media events, exhibitions, and installations. Much of it employs [...] mainstream media techniques [...] to deliver messages that subvert the usual intentions of these commercial forms. [...] A high degree of preliminary research, organisational activity, and orientation of participants is often at the heart of its' collaborative methods of execution, methods that frequently draw on expertise from outside the art world as a means of engaging the participation of the audience or community and distributing a message to the public. The degree to which these formal strategies -- collaboration among artists, public participation, and the employment of media technology in information delivery -- successfully embody and serve the work's activist goals is an important factor in the work's impact. Whether the forms of these activities are permanent or impermanent, the process of their creation is as important as it's visual or physical manifestation."

Furthermore she notes that "activist cultural practices are typically collaborative." They often prefer to remain anonymous or opt for group names, "thus challenging art-world notions of individual authorship, private expressions, and the cult of the artist. [...] The fact that the composition of many of these groups shifts over time [...] further underscores the activist deemphasis of notions of independent expression and authorship", which may be further supported by the "use of such relatively impersonal technological means as reproducible forms, media techniques, and mass communication." And: "Finally, when activist artists extend their collaborative way of working to an audience or community, the process takes the form of a similarly inclusive activity -- public participation. Such participation", Felshin states, "is a critical catalyst for change, a strategy with the potential to activate both individuals and communities."

8. The Importance of Cyberfeminist Networking

Keeping this in mind, let us now come to the question why the art of networking may be especially important for those interested in gender related issues in the net. While I feel there may be no need to repeat the well known and well proved arguments pointing out that the same gender troubles -- sexism, discrimination, harassment and so on -- that can be experienced in the so-called meat space determine and even dominate cyberspace in many ways, I would like to come back to a problem I already tried to adress with my "thoughts on the aesthetics and politics of cyberfeminism" as published in the reader documenting the First Cyberfeminist International 1997 (Hamburg, 1998). Giving an overview of the different ways (cyber)feminists relate to and the different strategies develop to cope with the WWW as an arena of representation, I tried to underscore the importance of a continous and critical reflection on the use of labels and images as well as of an ongoing (re)search on and for strategies that may be (more) successful "to undermine rather than to confirm the traditional stereotypes of gender".

Whereas, regarding the limited space given within the context of this publication, it might be sufficient to recall some of the strategies I am considering as useful for cyberfeminist performance on the net -- beyond them strategies referring to techniques of collage and montage, of copy and of reenactment traditionally being used in the context of artistic and political activism as well as strategies like parody and masquerade that gained importance in the context of feminist and queer theory and activism -- and to readress the examples I elaborated on in greater detail in the context of other publications (see the titles listed in my bio-bibliography), closing my argumentation I would like to point out that following the line of arguments I tried to give in the prevoius chapters of this text one of the most important issues of cyberfeminist engagement within the con-

tested zone of the WWW should be the perfomance of cyberfeminist networking.

As a kind of outlook and to provide a more detailed perspective, finally I would like to add a personal statement adressing the cyberfeminist network I am situated in myself: the Old Boys Network.

9. For Example: Old Boys Network

To me, Old Boys Network (in short: OBN) stands for a small, concentrated and thereby potent group as well as being a structure, a cyberfeminist network that is working in and on the net with cyberfeminist strategies and on cyberfeminist issues. Far more than merely a strategic alliance, OBN operates on the basis of personal sympathy as well as mutual acknowledgment and recognition -- a community who obtains its agency by the way of its common sense about dissent as a common sense -- many-voiced instead of an uni-vocal chorus-line that needs to be guided by a conductor or a leader. Important is continuous exchange, discussion, and transdisciplinary collaboration, especially in the sense that old boys -- though coming from different disciplines, referring to different theoretical backgrounds, having made different experiences, relating to different methods -- have a common basis and field of work: cyberfeminism. And the fact that we all are prepared and willing to develop common cyberfeminist strategies is another unifying moment.

Of course it is by no means a mere accident if these cyberfeminist strategies can be aptly seized as aesthetic strategies. This shall not suggest to see the net as a work of art in the traditional sense, nor OBN should be understood as a kind of artistic project (again in the traditional sense). Rather one could state that OBN is a working group acting in the realms of the art world as a operating system ("Betriebssystem Kunst"), but without any obedient reference to the limiting conditions of this operating system.

10. Old Boys Networking

At this point it might become clear, that obn's aesthetic strategies are always to be understood as political -- of course not to support any kind of aesthetisation of the political (as it is to be observed widely on the net wherever net.art is being abused to mask economical interests), but rather because any aesthetical is to be understood as political at the same time.

11. Performing Cyberfeminism

Actually, for me cyberfeminist (self-)understatement and (net-)work(ing) in a very basic sense could be defined as 'working on the code', or, to be more precise: working on the texts and subtexts the net consists of and is built on. Especially, whereever these texts and subtexts (and this seems to be in the very nature of things, respectively in the technology the net is based on) serve to contribute to the consolidation and conservation of the binary code the traditional notions of gender are erected on. The more, to me it is an important, maybe the most important concern of cyberfeminist (net-)work(ing), to analyse and deconstruct the pertinent practices of representation and regulation as well as to develop effective strategies that are well appropriate to queer and to subvert those practices, and, of course, to search for new perspectives that might lead us beyond any binary system of the so-called gender arrangements (Ordnungen der Geschlechter) -- on the net as well as transcending it.

<http://www.kunst.uni-mainz.de/~kuni/welcome.htm>

Selected Publications:

Auf den Planken des Bateau Ivre durch die Phönix-Asteroiden. Der Surfer. Versuch über ein Mythologem, (in: Ausst. Kat. Surfing Systems. Die Gunst der Neunziger. Positionen der zeitgenössischen Art, Basel/Frankfurt/M. 1996); Zur Psychopathologie des Netznutzers (in: Eva Grubinger: Hype! Hit! Hack! Hegemony! Vier Gesellschaftsspiele zu Kunst, Pop, Internet und Theorie, Stuttgart 1996); "Future is Femail". On the aesthetics and politics of cyberfeminism(s), (in: Cyberfeminism. A Reader, Hrsg. Cornelia Sollfrank, Hamburg/Berlin 1998); "Cyberfeminismus ist kein grünes Häkeldeckchen". Zur kritischen Netzpraxis von Künstlerinnen (in: Kritische Berichte, Heft 2/1998); Die Flaneurin im Datennetz. Wege und Fragen zum Cyberfeminismus (in: Konfigurationen. Zwischen Kunst und Medien, Hrsg. Sigrid Schade-Tholen/Christoph Tholen, München 1999; netz.kunst. Jahrbuch des Institutes für Moderne Kunst 1998/99, Nürnberg 1999; Spiderwoman im Wybernetz - Ästhetiken und Politiken von Cyberfeminismus (in: ORTSveränderungen. Perspektiven weiblicher Partizipation und Raumaneignung, Hrsg. Heide Andres-Müller/Corinna Heipcke/Leonie Wagner/ Marlies Wilde-Stockmeyer, Königstein/Ts. 1999); Buducnost je fe-mail (in: cyberfeminizam [ver 1.0], Hrsg. Igor Markovic, Zagreb 1999).

Nat Muller

Suggestions for Good Cyberfemme (House)Keeping: Or How to Party with the HYPERLINK

What's Housekeeping got to do with it?
Somehow "housekeeping" seemed like a nice and traditional metaphor to illustrate the uneasiness wherein convergences of gender and technology are subsumed. The "housewife" has traversed quite an interesting identitarian trajectory, and has been upgraded from her dependency on family relations (her identity as wife is defined in relation to her role as spouse and mother), to being an "active producer" in constructing the domestic space (she's a home maker), to the last upgrade of a domestic engineer (she designs, constructs, and executes the domestic machinery). Well isn't this great? She's come a long way baby: from wife, to maker, to engineer, but in effect she's still trapped in the drudgery of housework. In other words, the tools she uses may have become increasingly hi-tech, her status may have been technologically elevated, yet she may solely become a producer and/or consumer of these technologies providing that her consumption and production preserve her position in the patriarchal system.
Now this may sound all very bleak, but I mobilise this metaphor in order to exemplify how cultural and gender ideologies are scripted in technologies and the discursive practices surrounding them, and how in cyberfeminist theory we might risk to obliterate the impact of these defining elements, thus risking to perpetuate the socio-cultural assumptions we set out to upset.
So grrrlZ, ditch the dishwasher, trash the metaphors and sell tradition to your grandma!

Boy Scouts will be Boy Scouts will be Boy Scouts
We know them all: the boys who pretend to do their own washing-up, but actually mama's still doing it for them. Mama will never become the leader of the pack coz that might infringe on the boys' play-time. When girls start playing with boys then, more often than not, they ought to become boys, and have to abide the rules of the game. Well, thank you very much, guys! The game is over!
However, it's not that simple.
So grrrlZ, ditch the dishwasher, trash the metaphors and sell tradition to your grandma! And get a modem of your own!

Cyberfemmes are so chic or just Fools for Fashion?
As contributing editor of Fringecore Magazine (http://www.fringecore.com), a pan-European bi-monthly journal of the cultural fringe and the weird, I am one of the very few women contributors to the mag. This may seem as a small detail, but nonetheless I'd like you to keep it in mind coz it illustrates how (sub-)cultural practices -- I mean this in the widest sense from 'zine publishing to mailing lists etc. -- often become susceptible to Boy Scouts Mentality and end up making it difficult for women to participate or, in the worst case, end up excluding them. Anyway, for Fringecore I mainly write about gender and technology. Now, over the past year I have interviewed women who might be considered cyberfeminists. These women come from different disciplines and backgrounds, but what they have in common is their interest in gender and technology and their academic affiliation. What I did at the Next Cyberfeminist Conference was to present a collage of what cyberfeminism(s)" mean(s) to these women, and add some critical asides. Basically my aim was to trigger a discussion about the discrepancies between feminist theory and feminist practice. Central to the interviews was the questioning of the relationships and interactions between gender and technology. And here technology means much more than IT and Communication Technologies.

Grrls may need modems, but grrls ought to know that their lives are much more linked with technology than being wired up: reproductive technologies, household technologies, and all these other (everyday) technologies which OR keep them constrained in traditional gender roles OR supply them with the opportunity to break out of these roles. So I think that first of all we have to work towards an inclusive TECHNOLOGICAL AWARENESS. That is, when we think in a critical fashion about women and digital technology, we ought not to cut that off from all the other technologies which pervade our lives. In other words, we shouldn't mark off and isolate the "cyber" experiences of women, but rather integrate them in the overall system of women's technological experiences. I think this holistic approach is important. So my first suggestion for conceptualising an effective cyberfeminism would
- ground the digital experiences of women in the material realities of their lives
- examine how women interact with those new communication technologies by getting a sense how in other spheres of women's lives gender conditions technological performances -- and vice versa -- how technology conditions certain gender performances.

I feel that theory -- whatever that may be -- particularly falls short here. This is perhaps due to the fact that a lot of "academic cyberfeminist" writing has been done by people who come from the humanities, and who are easily seduced by the practice of discourse production, hence run the risk to lose a feel with RL. The danger here is that discourse ends up being a substitute for politics, and neglects to carry an emancipatory or transformative value.

At one time -- about 3/4 years ago -- you'd get all these fashionable Cultural Studies books about technology. Everybody was looking at film and cyberpunk novels; so if

you didn't mention Ballard's Crash, Johnny Mnemonic, Blade Runner, Robocop or any of Gibson's novels you were totally beside the point. I do not want to diminish the importance of lit crit and film crit; they are important practices to understand culture. But you're not engaging in techno criticism then, you're doing lit crit or film crit. What happens in these writings is that "TECHNOLOGY" becomes this variable parameter everybody can fill in to his/her needs/tastes, which leads to -- sometimes even grotesque -- generalisations. More often than not technology is viewed in this Foucauldian sense as a production of discourses and institutionalised social practices etc, which has to an effect that technology ends up being discourse and black-boxed. That's dangerous, and especially in relation to women technological determinism is dangerous:
- It blots out choice and agency coz technology is viewed as autonomous, so OR you join the techno-hype bandwagon or you wallow in techno-phobia.
- It creates a distance from the material realities of women's lives coz it's presented as something that isn't tangible, but this encompassing liberating (if you subscribe to techno-euphoria) or imprisoning (if you're techno-phobic) force.
- It discards the social processes wherein technologies/ techno artefacts are produced. That is, it neutralises factors such as gender, class, geography, race, etc.

It is preferable to remain as concrete as possible when we think about technology, referring to particular technologies in specific contexts rather than to technology as a monolithic demonic or liberating historical force, it is important to recognise when the term technology is being used primarily metaphorically [yes in PoMo discourse metaphor becomes reality, it becomes truth, coz metaphor and discourse is all there is] to refer to something other than itself. We must be careful to tease out the ideological implications of technocritical thought and rhetoric.
(Kathleen Woodward. "From Virtual Cyborgs to Biological Time Bombs: Technocriticism and the Material Body." Culture on the Brink: Ideologies of Technology. Eds. Gretchen Bender and Timothy Druckrey. Seattle: Bay Press, 1994).
So grrrlZ, ditch the dishwasher, trash the metaphors and sell tradition to your grandma! And get a modem of your own! And get real!

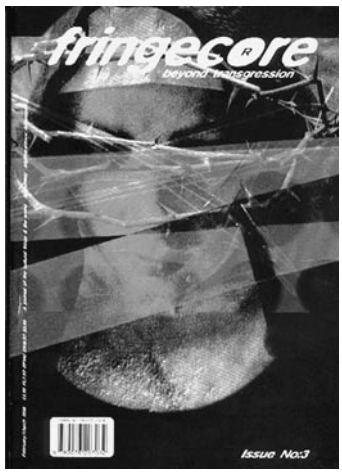
Crashing the PoMo Party or Partying Along!!

Interview with Anne Balsamo

http://www.lcc.gatech.edu/~balsamo/index.html
http://www.lcc.gatech.edu/~balsamo/index.html
http://netbase.t0.or.at/balsamo/balsamoint.htm
http://netbase.t0.or.at/balsamo/balsamoint.htm

Anne Balsamo was at the time of the interview Director of the Graduate Studies Program in Information, Design and Technology, and Associate Professor in the School of Literature, Communication and Culture at the Georgia Institute of Technology. She is the author of the widely acclaimed book Technologies of the Gendered Body: Reading Cyborg Women (Duke UP, 1996). She's from a humanities background, but teaches at a technical university, and her insights are informed by the latter. This is to say, she is much more involved with the material repercussions of certain technological practices; this is contradistinction with the other women (I interviewed) who keep some sort of "critical distance"; hence run the risk of ending up as discourse machines, disregarding material realities, eschewing involvement. So I asked her about the flirtation of (cyber)feminism with Post-Modern technobabble (Deleuze/Guattari, Baudrillard, Lyotard, Foucault), which in my opinion is often masculinist and a-historical, dated (rhizomes for breakfast, rhizomes for lunch and rhizomes for dinner), and do NOT actually pertain to the reality of women (see also some of the postings on the nettime list). These practices may depoliticise and deactivate emancipatory purposes when internalised by women. When I asked her about this and her call in her book to "Crash the PoMo Party" she replied:

„Post-modernism takes itself so seriously, but you just cannot take the pronouncements they offer on women seriously because it's just simply an impossible epistemological position for women. Deleuze and Guattari are a perfect example of people who end up being discourse machines. They put in circulation a set of ideas and terms: for example to think the animate instead of the inanimate; to think flows instead of objects... Now these are really powerful terms and concepts. But what happens is that they get turned into this industry to produce more discourse, that then gets applied to the post-modern scene in a way that seems seamless. I mean, people will take up Deleuze and Guattari as if they are the beginning and the end of everything we need to know about our contemporary moment. I'm just a little suspicious of the seamlessness, you know. There don't seem to be any contradictons, there's always an answer... just like there always seems to be an answer in Foucault. You can always read the current moment through these theoretical lenses, and everything would be taken care of. I think that you have to start looking at the material conditions. When you think about 'flows' and the global circuit of capital, then I still think that it's a theory and

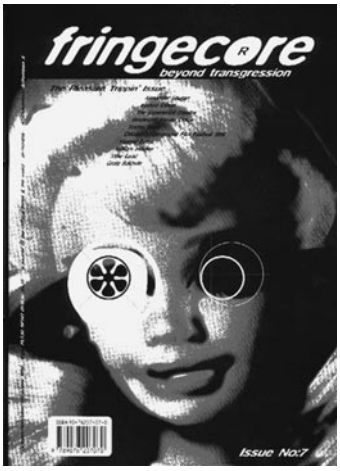


worldview produced out of a location of dominance, rather than a theory and worldview that can articulate what it might be to be somewhere else in the circuit of capital. It's a discourse that is strangely de-materialised for as much as it invokes the body (the body without organs)...now of

course that may not be their (Deleuze and Guattari) fault, that may be the fault of theory. This is not to say that we shouldn't do theory...of course we should. But I guess there's always the danger that you get so seduced by theory -- whether it is post-modernist theory or feminist theory -- that you just get pulled into these discursive constructs and language games, and forget to try to wrestle with what the material life is like."

Now this in contradistinction with someone like Sadie Plant -- the theorist we all love to slag off -- who has acquired the label of a cyberfeminist, but who is much more on the side of fashionable discourse production. I asked her about the research conducted in the Cybernetic Research Unit at Warwick University, where she used to teach :
„All of the students, whatever they were working on in very different areas, were all very materialist-philosophical in mind. They would mainly be reading Deleuze and Guattari, and Foucault and so on. In effect we were looking for new paradigms how to rethink culture, rather than the traditional academic humanist sort of way to view culture. It seems to me that technology can not only be used to talk about human culture, but actually ANY sort of culture: from culture in a petri-dish in a biological context, right through to the notion of global culture. So that's the kind of -- certainly not anti-humanist -- but more NOT-humanist ideas we were working with."

I think the tension between these two views is quite clear: whilst Anne argues for a techno-criticism which is grounded and specific to the material realities of women's lives, Sadie wants to appropriate technology as a paradigm to explain ANY sort of culture, according to theories articulated by a French Boy Scout's Club. So again, in Sadie's case I wonder whether -- if at all -- there's space for women to function as subjects. I know that the term "subjectivity" has graced, or plagued feminist theory for decades, but nonetheless, feminist and female subjectivity is a very important issue. And I really do have my doubts whether the current infatuation with rhizomes etc can provide us with that.. An alternative place to look at would be feminist science critique, which is much less based on rhetoric than the stuff you'd get in cultural studies/humanities. I think that more particularly Feminist Standpoint Epistemology (articulated by people like Sandra Harding, Helen Longino, and yes!! (early) Donna Haraway) might provide us with tools or openings towards a workable cyberfeminism. People got so carried away with Haraway's "Cyborg Manifesto", and it has been misread so many times, that they almost over-looked her powerful concept of 'Situated Knowledges'.



„I am arguing for politics and epistemologies of location, positioning, and situating, where partiality and not universality is the condition of being heard to make rational knowledge claims."
(Donna Haraway, "Situated Knowledges" in Simians, Cyborgs and Women. FAB: London, 1991)
So grrrlZ, ditch the dishwasher, trash the metaphors and sell tradition to your grandma! And get a modem of your own! And get real! And throw your own party!

FSE in a Nutshell
„This is a theory of knowledge wherein knowledge becomes socially situated. For example: start thought from marginalised lives; problematising everyday life. "Standpoint Epistemology" sets the relationship between knowledge and politics at the centre of its account in the sense that it tries to provide casual accounts -- to explain -- the effects that different kinds of politics have on the production of knowledge."
(Sandra Harding in "Rethinking Standpoint Epistemology." Feminism and Science. Oxford UP: NY, 1996)

Haraway is making an argument for situated and embodied knowledges and against various forms of unlocatable, and so irresponsible, knowledge claims. Irresponsible means unable to be called into account. (Haraway, 191).

Involvement
This theory combines involvement with knowledge; provides you the opportunity of becoming an agent, that is a subject. And moreover, FSE identifies the historical and social relativism of all knowledge claims. When I talk about involvement I do not only mean a critical involvement in the production processes of technology/technological artefacts, but equally a critical consumption of these technologies. At this stage I'd like to add a comment of an interview done with film scholar Vivian Sobchack, coz she really brings home the importance of a situated embodied knowledge. Vivian was basically attacking this whole fashionable concept of the body becoming obsolete in cyberspace: "beating meat" and all that sort of macho prank. Beating the meat, is after all, a Boy Scout's term for wanking.

Vivian:
„Part of my project is, indeed, this kind of critique of this technophilia, that forgets where the imagination of the technophilia comes from. You know, all the extreme talk of 'downloading' consciousness (like Hans Moravec) and getting rid of 'the meat' and 'the wetware' now changed to 'uploading' consciousness, which I think is very funny. But my agenda essentially, is to keep reminding people that even the most extreme imagination of disembodiment is coming from a consciousness that's embodied. So part of my mission is to constantly keep reminding people that whatever the fantasies, they are ultimately grounded in the transparency, in what becomes one's zero degree visiblity, of one's own physical existence. But that is the grounding, and it gets forgotten."

Involvement
Again, I am all for abolishing the dated victim-feminism of the 70's and 80's and for grrrl action, but it would be a mistake to just ditch our feminist heritage because it is the

latter which allows us to be weary of biased gender ideologies in relation to technology. Having a woman put up things on the net is not per se a feminist action (internalisation). Having academic theorists proclaim from their ivory tower that female bonding plays an important part in IT; from the Asian sweat-shop worker soldering chips, to the data typist, to the multi-media artist is not going to better the condition of these women. It is not that communication technologies are soooo liberating and subversive! It's the production and consumption of technology; the cultural and socio-economic practices by individuals or groups which render them a subversive -- or not -- medium. And again I am going to play out Anne and Sadie coz they illustrate this point nicely. Anne ponders here on technological practice and techno-theory which is very much based on a critical involvement with the production. And consumption processes.

Anne Balsamo:
„So there seem to be lots of ways to come into the issue of science, technology and culture: one is to look at the historical way that cultural studies have engaged these issues; one is to think about how we can live with science and technology. Another is an issue which we deal with at Georgia Tech: how do you educate people who are going to be scientific and technological leaders differently, so that maybe they will DO things differently? How do you help them mutate, so that they're not the same technological bureaucrats that preceded them?
If I were thinking about this in terms of being a cultural critic -- for me that means that you have a commitment to understanding the material substrate of technology: how these things get made; who makes them; what is the labour involved and so on. It's easy to criticise the end product without understanding the material labour that goes into producing it; the criticism can never be that simple, though. So silicon chips are perhaps the tool of the devil, but they are also the embodiment of the labour of women who labour for 50 and 60 hours a week building these chips. They are not just the tools of the elite, but they are also the material means by which a whole group of people are oppressed at a physical level."

OK, then here's Sadie starting out to explain what cyberfeminism means, she starts out OK but then switches to a very celebratory and techno-philic account, which made me almost jump for her throat:

„I see it [cyberfeminism] as possible way of looking back on the history of feminism and of 'women's lib', and try to tell a much more materialist and non-linear story about how that has happened. In a sense I have been trying to get to a notion of a non-linear history of feminism. I have never quite put it in those terms, but there's certainly that side of cyberfeminism as well. There's this whole historical genealogy of women interacting with technology, but this is also geographically. Now obviously those women in factories are at the bottom of the pile, there's no doubt about that. But, one the one hand, an interesting observation to think of is that you and I, and all those women are all using or making computers in some capacity, albeit either at the top or the bottom of that ladder. That in itself is an interesting link, given that we are supposed to talk about a male dominated culture."

I think what clearly comes out here is a very distorted view of what active production might mean. So, these women are making computers, but what kind of agency do they have in the process? They are not breaking the capitalist or patriarchal hegemony by soldering chips. I wonder what's so emancipatory about them! Same thing goes for data typists, and lots of women using digital technologies -- are they actively engaging with them, do they have smth to say about the design interfaces or how they will utilise these technologies? I am very weary of making these celebratory gyno-social links as in: Ooowww look at us girlies we're all digital divas whether we're slaving away in a chip factory or whether we're suffering from rep.strain injury or carpal tunnel syndrome. This makes me think of the 70's sisterhood feminism, which was white middle class and looked over factors as class, colour, sexual orientation, etc. Now THAT got a lot criticism in the 80's and 90's, and we should not fall prey to that again. So before we start jumping around with terms like "virtual sisterhood", we should be sensitive to how inclusive that sisterhood is.

Wire Up~Act Up
I think that first and foremost we ought to be careful not to turn cyberfeminism into a fashion fad, which merely has a snappy ring to it and nothing more to show for itself. That is, it shouldn't be treated as this transparent signifier we can stick on everything coz then it runs the risk of being colonised by academia, and will eventually end up in mouldy text books instead of a becoming a dynamic practice. We should think about ways how we can mould (conceptual) feminist theory into an applicable tool and involve it in our projects and practices.

Rosi Braidotti, who's a feminist philosopher, and very much of a Deleuzoguatarian partying with the PoMo club, did make some very relevant comments in her interview. I edited out all the references to Lacan and the talk about meta-language for this particular excerpt.

Rosi Braidotti: "I am very concerned not to lose the connection to the past. I am only in favour of cyberfeminism, so long cyberfeminists remember that there is a long history to this, and we're not starting from scratch! We cannot lose 30, 40, 60.a 100 years of accumulation of knowledge and experience. We must draw these connections. The same goes for post-humanism. I am all in favour so long as we agree, again, on a number of parameters, and see this as a huge shift. But not as a dramatic sort of rupture, because then we are all in terrible trouble. The risk of real relativism, and real anarchism is just about the last thing we need, because then the totally moralistic right wing, in the state of confusion, will come back in with a traditionalist package, and we would have lost the whole show. We need to have progressive, but workable solutions."

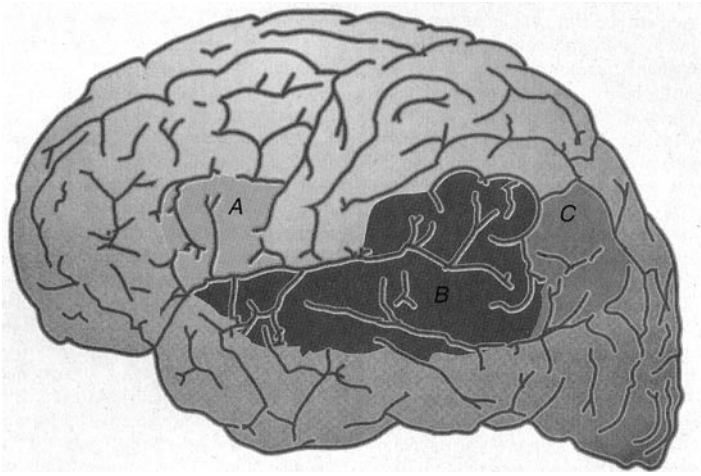
There you go, last but not least: fuse the polemic with pleasure!

Helene von Oldenburg

Cyberbug.
Browsing the brain

This article introduces SpiderBug, a recently discovered virus-like program, which is -- without doubt -- the source for all kind of occurrences around the net and everyday life.

The so-called SpiderBug, isolated by neurologists in the brain of the Homo Sapiens while doing their research in the field of Arachnomancy, is a program working the human brain like a virus in a computer. (The word "Arachnomancy" stems from "Arachne", the Greek word for spider and "Mantic", a technic to get knowledge about the future.) Because there is not yet an antivirus program available -- supposedly never will be -- we have to invent strategies to deal with this potent bug. The SpiderBug is not only influencing our intentions but it is also damaging our ability of selforganization. Arachno Arachnomantic research tells us that the human mind shows a highly significant preference for a variety of thread-bound constructions like lines, knots or nets. When analyzing the underlying structure of our ideas and inventions we find a networking dynamic in nearly every part of life, science, art or society.



Up to now Arachnomancy only could prove how this process is initiated by arachnoids out of the future and that it is increasing its spreading rate. Arachnomantics could not predict the organic and psychic conditions of this process. The discovery of the SpiderBug as being responsible for this evolutionary process is a dramatic breakthrough.

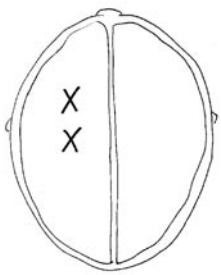
Before I speak about nature and function of SpiderBug let me introduce the scientific method Arachnomancy. Arachne, the Greek weaver, was punished by Aphrodite for exposing secrets of the holy Olymp by way of her weaving skills. Therefore she was made a spider by the goddess. So the science of the spider still is named Arachnology. But Arachnomancy, as a novel science, explores the biological and cultural evolution of the Homo Sapiens with respect to a netbased future, as well as the influence of future Arachnoids on this development. The new method allows an unexpected view into the future of earth and unveils its arachnoidic structure: The dominating species of our times, Homo Sapiens, will be superseded by an arachnoidic species.

SpiderBug Facts

SpiderBug is not a biological virus. SpiderBug is not a computer bug. And it is not the "Millennium Bug". But it is partly biological, partly image. You may call it a Cy-mage (short for Cyber-Image).
Don't get the impression that we know exactly how a SpiderBug looks like. That is not correct. Fact is, we were able to isolate 3 different parts of the SpiderBug. The isolation of SpiderBug is a problem, because we have to do our research in the intact brain not a petri dish; for SpiderBug dissolves immediately outside lively brain activity. (There should be a relation towards intelligence, but we could not prove it jet.) One of the isolated parts are related to the right and one to the left side of our brain. Up to now the third part we don't know to place. We speculate its location to be in the cerebellum.

Infection

SpiderBug, inactive



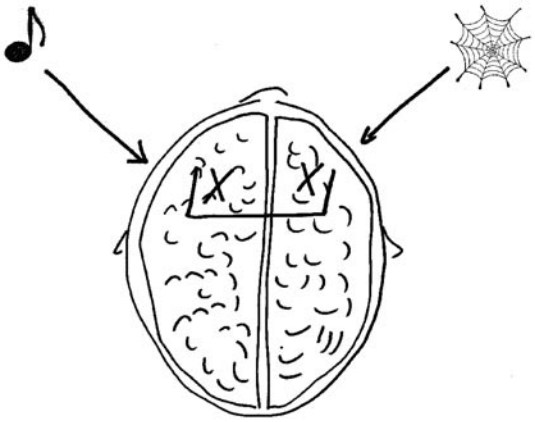
Possible scenarios for the origin of the Cy-mage is
a.) inserted via Information Molecules, a method of com munication frequently used by arachnoidic future species
b.) weblike brainstructures (as well as structures of atoms or cells) programmed the virus
c.) presumably there are more paths of infection, but they are not confirmed yet.

Activation

Even when both sides of the brain are infected the SpiderBug still is inactive. For activation it needs a rapid confrontation with activities typical for spiders. Something like weaving, networking, capturing prey, or a poisonous act.

The very moment SpiderBug is activated we observe a high pressure which stresses the human individual to fit its whole ego and self into the domination of certain images. They become powered by netbased systems and the Cy-mage controls the human selforganization.

SpiderBug, activated



Let's assume both sides of the brain (left and right side) in addition to a third place maybe the cerebellum are infected. And a catalytic activity like for example creating a webpage is dominating the activity of the brain. This activity links the three parts of SpiderBug and forms a potent device to increase web-related images or goals. An activated SpiderBug is a kind of mini network.

Today the thread- and weblike structures in nearly every part of life, social systems or machines show the wide distribution of the SpiderBug. Latest statistics point to a new stage: The infection rate is increasing dramatically.

Diagnosis

Induced by SpiderBug we are confronted with some new forms of mental disorder. As there is Web-osis (the typical webrelated neurosis), Thread-fixation (an obsession with lines, ropes or nets), Internet-addiction, Net-paranoia or Digi-hype.

Let me give a more detailed description of web-osis.
In January 1999 a psychoanalyst contacted me and told me an extraordinary story. It's the story of a patient of hers. And she said, colleges of her reported similar stories of their patients. The analyst said it is a new form of mental disorder. They call it web-osis, short for web-psychosis. The patient perceives her surrounding as consisting of threads, knots or nets. She gave an example:

This patient is a successful consultant in a huge company in Hamburg, Germany. She has to travel a lot and even liked to travel until her orientation became disturbed. It happens only when she visits a city or a place more often than seven times. Then her normally perfectly functioning orientation and memory is betraying her. Suddenly she finds herself in a totally changed reality. Like being in a virtual space with headset and dataglove. But she is not. Streets, pedestrian walkways, tramways, subways she sees and experiences as threads, bundles of threads or nets. So she has to balance the pedestrian walknet, crawl across a tubular net, a stronger one, which the last time she visited was a street, heavy with traffic. She sees the telefonlines between houses as signal-threads, only that the houses are complicated woven structures. She knows where the houses are connecting the canalization network, etc.

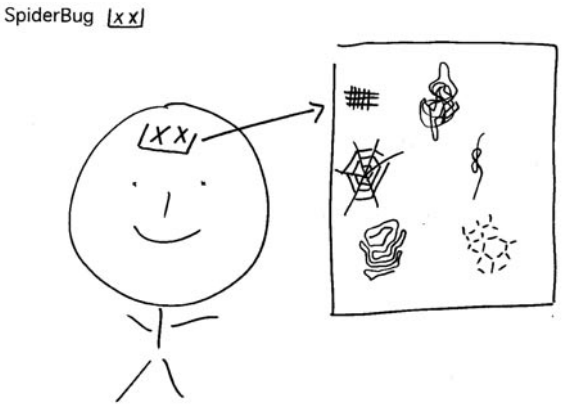
As you can imagine she just freaked out. The first time, she screamed until the police took her away. She was coherent enough to let them escort her to get her train back. Next time it happened, she took a taxi and the driver had to take her by the hand back towards the train. During one of the next memory switches she found out about the magic number eight. Now she visits any place not more than seven times and sakes her boss for a new assignment. Instead of shortening her career this makes her even more successful, while expanding the territory of her company.

SpiderBug [xx]

I suggested she should become familiar with the theory and discoveries of our arachnomantic research. Especially the latest finding of SpiderBug. Maybe she is avoiding the

truth concerning our future? If so, she should do a lot of spiderous activities like knitting, playing sports and other games or go on-line longer and more often.

Two month later I've heard that she is much better now. Even enjoys her experiences of the eighth art. This example points out how powerful the Spider-Bug acts some-time and that it is not possible to stop its disturbing symp-toms unless you understand its na-ture and do some complementary activi-ties.



Strategies

Whenever there is the slightest possibility of an infection by Spider-Bug you should treat it with profound information about arachnoidic future-related processes (get access to the latest research of Arachnomancy) and encourage a lot of spiderous activity, which you are supposed to act out con-sciously. This not only will incorporate your sense of reality, but ensures that SpiderBug is activated properly. Avoiding the infection by SpiderBug is not possible. And all attempts to prevent activation of the infected human brain failed.

If you as Cyberfeminists question the power and nature of SpiderBug, you should consider that you are dominated by a SpiderBug. Maybe you are not conscious of this fact; maybe you simple refuse it because it is a question of pride or fear. As Cyberfeminists you belong to a group which is not fighting the SpiderBug like the patient I spoke of. You gave in. You adopted the SpiderBug pressure as your own.

As a transition into a net-conscious exis-tence, cyberfemi-nism is consciously pursuing arachnoidic strategies. Cyberfeminism wouldn't be in existence without the occur-rence of SpiderBug.

Maren Hartmann

The unknown artificial metaphor or: the difficult process of creation and destruction

First step:

In the following paper I would like to offer you a choice. This choice is abstract and also very limited. It is the choice concerning different metaphors used to describe online user identities. The only substantial choice in this paper is actually the option between acceptance or rejection of one particular metaphor: the cyberflâneuse. The acceptance could lead to an increased creation of this metaphor; the rejection would not have any immediately obvious consequences. Instead, what this discussion should offer is the idea of the potential necessity of an increased and a more conscious development our own language for the online world(s). The existing metaphors are limited, but their implications for the future shape of this newly emerging cultural space could be far-reaching.

My particular metaphoric suggestion does not even exist as such yet. It therefore evokes the idea of an artificial creation, starting at point zero. But this particular metaphor -- despite not existing yet -- already has a history. And it is this history that you will get to hear about later on.

I will start with a brief introduction of the more general issues though. Part of any online metaphor creation-process needs an assessment of the importance of online metaphors in general as well as an overview of the currently available user ones. Within this framework, both of these issues can only be briefly and insufficiently addressed. But I hope to offer a stepping stone for your own formulation concerning the necessity (or not) of metaphors for the online world. Maybe you would like to start by spreading this particular artificial metaphor in abundance…

More introduction:

I consider cyberspace as an emerging cultural form of the Internet in Raymond Williams' sense, i.e. as the process of transformation of an abstract technology to its social usage and applications, which contains a very complex relationship with the residual cultural practices (Williams, 1974 & 1980). These practices shape how we think about the Internet and even more so how we communicate about it. This communication about the Internet often needs some sort of 'translation instrument', i.e. a language which helps people to relate to the partly unknown and to communicate despite the diversity of their individual experiences. This language frequently consists of metaphors, i.e. language terms which use parts of the known, everyday language and which sometimes add new bits and which always come up with an associative meaning to the original. This is indeed a very crude explanation of the workings of a metaphor, but one that will hopefully suffice for the purpose of this paper. My interest in metaphors is after all not on the linguistic level, but on the level of their cultural implications. I am interested in a fairly everyday use and understanding of these metaphors. I am concerned with publicly accessible visions that will guide a more general development of the online world, manifested in the try to find a language to communicate this new experience in. I am therefore looking for the communication about the Internet (Bickenbach & Maye, 1997:81). This also implies that I am less interested in specialist Internet applications (like, for example, MUDs and MOOs are to a certain extent), but rather in the more public face (WWW). This distinction cannot always be made very clearly, but is underlying my choice of metaphors for the analysis.

Online metaphors:

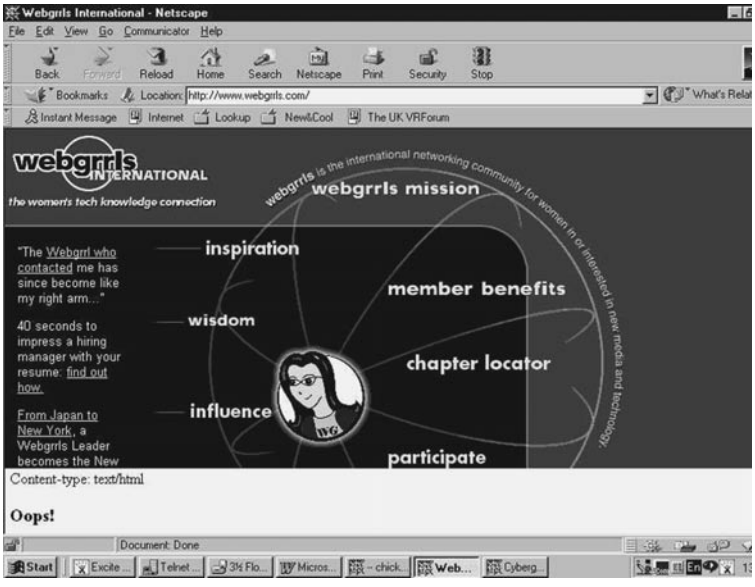
The Internet has brought with it quite a few new terms -- many of them at least partly based on the existing language. Since it is difficult to communicate without reference to the already known, this is not surprising. Interesting is the selection though. Which parts of the old are we taking with us into the new? Referring to the general idea of cyberspace (which in itself is already a metaphor), there is e.g. the information superhighway.

By late 1994 it seemed the word Internet was on everyone's lips. Newspapers ran front page headlines about the information superhighway, and in fact nearly 20,000 stories were printed in 1993-1994 using the words information highway or superhighway. (Harris, 1996:2)

The information superhighway metaphor was not only a favourite with the media, but with governments and industry, conveying the smooth and well-ordered flow of information from one point to the next. It has been criticised extensively, partly because of the history the term carries, partly because of the limitations it implies for

future developments and partly because of its lack of reference to the actual scope of possibilities of interconnection and interaction in the online worlds (e.g. Canzler et al., 1995).

Another important general metaphor is the virtual city. Its implications go much beyond the uninterrupted flow of information from one point to the next -- it can imply as much as a whole new society in virtual space. And the city's attributes as a collective experience, as heterogenous, organised spatially and realised visually (Bolter, 1996) does seem to cover well the diversity that makes metaphors for a more general discourse so difficult to find. But while it seemed to reflect the potential complexity of interrelationships between people, places and activities quite well, it doesn't necessarily incorporate any solutions to the actual problems of such spaces. And the digital version of city-space had after all partly arisen because of real city space becoming increasingly difficult. And the newness of the visions is again based on the already known and thereby limits it. But it does not only repeat the restrictions to the possibilities of development because of its reference to the already known -- it also creates a very specific notion of space which falls much too short of the potential of cyberspace. Images of the futuristic cities in sci-fi films and novels are maybe the last space one would want to recreate online.



To an extent, all these metaphors are expressions of the utopias (and dystopias) underlying the emerging cultural spaces. But they often fall short of their proclaimed aims. At least they help to reduce the complexity of the technology and thereby remove an important stepping stone for the communication about cyberspace. Sometimes they create new barriers though.

User metaphors

User metaphors are often technologically sassy, like the hacker, cracker, phreak, etc.. They refer to those people who deal with the technology on a very knowledgeable basis. Other versions of user metaphors are science fiction metaphors. They often overlap with the technology-sassy ones, but usually only offer themselves once the person has reached a certain level of playfulness on top of the technological knowledge. Examples for these are the wizard, the data cowboy, the cybernaut. Since all of these examples require a certain technological and/or cultural knowledge they restrict the number of users who could apply them to themselves. They rather serve a certain group of users to identify to themselves as well as to the outside world.

Other user metaphors are general utopian descriptions, referring to visions of society and the net world -- like e.g. the netizen. He would be a perfect inhabitant of the virtual city. But the netizen doesn't do much for an individual's identification either, because it refers to everyone (we ideally should all be citizens first and other things later). This reference happens on a fairly abstract level as well and therefore doesn't entice anyone to join in particularly.

Most of the above mentioned metaphors -- and most of the ones I found elsewhere -- are male. There are some new creations like e.g. webgrrls (and many other grrls), disgruntled housewives, the break-up girl, etc., but none of these has made it into a more general discourse yet. The 'grrl' is a reaction to exactly the harassment discourse (see below) -- a female user identification and information naming which would not receive any of the (unwanted) visitors looking for 'girls'. Each one

of these new creations would deserve a closer look, but this is not the place. What seems different in comparison to the cyberflâneuse is their cynical, joking twist. They use the well-known and play with it. This might be the best way yet to create something new without being too far removed from the familiar. These metaphors differ from the cyberflâneuse in yet a different way as well: they do not have such a difficult history. This history makes the cyberflâneuse potentially empowering though.

The initial reason for my interest in the cyberflâneuse was the persistence of one of the male metaphors: the cyberflâneur. He is very particular, because he is one of the favourite metaphors of a certain cyber-'elite' (in terms of acceptance as well as criticism), i.e. those people who theorise extensively about life online and have all the cultural resources to do so very easily. His particularity is also based on his perception, which is very different from the rest. Let me explain.

(Cyber)flâneur

The original flâneur, who was always an ambiguous figure, is first of all a nineteenth century concept. He was described as the man-about-town with a sense for the true character of the crowds and for the meaning of the city amidst all the confusion of the changing world, i.e. industrialisation, urbanisation, etc. His home were the arcades, i.e. new and first places of consumption. He was less a 'real' historical than a literary figure. He is the embodiment of the supposedly right way of dealing with the shock of the new of modernity. This implied a specific perceptive attitude.

The formerly unknown mass of people that suddenly flooded the 19th century city provided a veil between the social reality of the urban space and the flâneur. 'Because of it [the veil], horrors have an enchanting effect upon him.' (Benjamin, 1997:59/60). Benjamin adds that the flâneur does not 'see through the social aura which is crystallised in the crowd', because he is intoxicated by the mass (Benjamin, 1997:66). This is partly because he adds memories and other mythical elements to this experience. Social reality is turned into an artistically enhanced true meaning. He needs the crowd of people for his reading of the city, but at the same time he will never be part of them. Neither does he engage with the consumerist objects laid out before him. They are necessary for his perception, as objects for his gaze, but not as something to occupy himself with on an equal footing. All this differentiates him from the rest of the crowd.

The same applies to the cyberflâneur (also referred to as electronic/cyber-/Net-/virtual/fast-forward flâneur). He has been treated as the one who knows how to deal with the new world of cyberspace.

'My name is wjm@mit.edu (though I have many aliases) and I am an electronic flâneur. I hang out on the network.' (Mitchell, 1995:7).

Thus it was proclaimed by William Mitchell, Professor of Architecture at the MIT in Boston, who was one of the first and is probably the most prominent of the self-proclaimed cyberflâneurs. This new flâneur-version has been applied by some (not many) Web-users to describe their online behaviour and experiences. It is to be found in the descriptions and the theorisation of cyberspace (e.g. Stone, 1995; Idensen/Krohn, 1997; Flâneur, 1998). Again, it is the perceptive attitude towards cyberspace that differentiates this from other identifications. The electronic version of the flâneur has taken many of the peculiarities of the non-electronic version with him into cyberspace. He also conveys the image of someone who is able not only to deal with the shock of the new, but to use it constructively. He is -- again -- not part of the crowd, but has an ambivalent relationship to it: he cannot be without it/them, but he will not be one of them.
I agree with Stephan Porombka, who claims that the electronic version of the flâneur is now a cult figure instead of a cultural figure (Porombka, 1998). He declares that this figure is seen or rather that the figure sees himself (!) as the one who knows better, i.e. the one who has not been hypnotised by the new media. Instead, he is able to reflect despite being a constant stroller of the virtual spaces. Porombka's emphasis is on what he considers the negative part of the original flâneur: self-delusionary grandeur. This he sees personified as even more extreme in the electronic version of the flâneur. The user of the term (as self-description) is therefore creating an exaggerated image of himself and the online worlds, not admitting to the limitations of either of them (Porombka, 1998).
The cyberflâneur also contradicts the common Web-utopias, which tend to be much more communitarian than individualistic. Neither though does he fit into the commercial side of things, because he does not consume.

Flâneuse

Since the 1980s feminist engagements started to look for female variants of the flâneur (real-life and theoretical). Only very limited versions of this potentially female cultural figure were found though, usually related to consumption and/or prostitution (Bowlby, 1992; Buck-Morss, 1986;

Ferguson, 1994; Nava, 1996; Pollock, 1988; Wilson, 1992; Wolff, 1990).
While Wolff and Ferguson can be seen to dismiss the idea of the flâneuse (at least on the 'real' level) entirely, Wilson and Nava have developed a 'careful optimism' (see below). After careful consideration I decided I had to side with the pessimistic point of view, especially in Ferguson's version. This is not to defy the search for a so far unnoticed actual presence of women in public spaces of the past, but to emphasise the differences between a flâneur and a potential flâneuse. Since the flâneur requires a very particular perception and dealing with public space and other people, the flâneuse might have to be something entirely different and not what these theorists were intially looking for. But I will return to this point.

The first, crude detail when looking for a female version of flânerie must surely be the actual presence of women in modern city space. This presence changed extensively throughout the last century. The more 'optimistic' versions have rightly found an increase in the number of public spaces having been available to women in the latter half of the nineteenth century. These include the cinema and 'great exhibitions, galleries, libraries, restaurants, tea-rooms, hotels and department stores' (Nava, 1996:43).
Other parts of the debate picked up on the then increasing freedom of female artists (as personified by the Impressionists) to move and artistically recreate public spaces. But these theorisations also reflect the complexity of the process (relationship to male colleagues; slow increase of allowed spaces; diminished artistic recognition) and the difficulties that these women faced especially through public discourse. Because this is yet another problematic of the debate concerning women in public city space: a discursive marginalisation was taking place, which caused the presence of women -- even where it existed -- not be represented in literature, philosophy and history. It also caused a public discourse to prevail which kept recreating the limitations for women -- like e.g. the dangers that city space entailed for respectable women -- and thereby helped to keep them at home. Only under (male) disguise were women able to be a flâneur =she, but still not a flâneuse.

But the even more pressing point is the lack of allowed (and lived) behaviour in public spaces which would resemble the flâneur's behaviour and attitudes. The best example for this was the department store. This was not only a specific sub-space of the city, it also provided for an experience that the flâneur avoided so carefully: consumption. Being engaged in this consumption and therefore in detail rather than the whole, the female can not be a flâneur. She does not show the same self-sufficiency that the flâneur embodies, because she shows a willingness to join in the crowd (Ferguson, 1994:31).

'Women, it is claimed, compromise the detachment that distinguishes the true flâneur. In other words, women shop, … No woman is able to attain the aesthetic distance so crucial to the flâneur's superiority. She is unfit for flânerie because she desires the objects spread before her and acts upon that desire.' (Ferguson, 1994:27)

I would therefore claim that the lack of purpose and the artistic freedom of the flâneur are missing in any of the female engagement with city space. Any flâneuse (re)creation would hence have to be a fundamentally different concept than the original male flâneur concept. Female 19th century flânerie could never be what the original male flânerie had been: a disengaged, voyeuristic appropriation of the city and its inhabitants. All the proposed versions of female flânerie contradict this idea. Therefore, whatever we consider to be a flâneuse is a new and essentially different cultural figure, a feminist invention of the latter part of the 20th century.
Which led me to think that maybe the cyberflâneuse could be a good representative of this new version of flânerie, inhabiting a new and supposedly quite different cultural space - different not only from the 19th, but even from some of the 20th century. Well, does the cyberflâneuse personify the new version of flânerie?

Cyberflâneuse

No, she doesn't -- at least not immediately. In the most basic sense, the cyberflâneuse does not exist (yet). There is no sighting of her as such anywhere (as there is, as mentioned above, of the cyberflâneur). Typing in this and other related search terms does not lead to anything. Equal blankness follows the 'intuitive' search without the help of search engines and other tools. And offline, in the literature that constantly mentions the cyberflâneur, there is no cyberflâneuse either. Instead, there are female descriptions of the cyberflâneur to be found, but even these are rare. They also seem to simplify matters by implying a cyberflâneur = she attitude.

Lucy Kimbell, a London-based artist working with new technologies, is one of the cyberflâneur = she propagators: 'The post-modern flâneur has at her disposal the new,

non-physical City of Bits, or cities, constituted through the imagination and programming skills of users of the global network of networks of computers known as the Internet.' (Kimbell, 1997).

The cyberflâneur=she is less a repetition of the 19th century disguise than a neutralisation, an androgynous version of being and strolling online. Gender is losing its importance in this discourse. This nullifies the continuation of problems of identity and gender and thereby simplifies matters without solving them. In contrast to this, I would proclaim the need to look for the applicability of the cyberflâneuse's own (new) attributes in cyberspace or her overall applicability to cyberspace. Kimbell's cyberflâneur=she refers mainly to the MUDs/MOOs. Again, they are a small and very particular part of an increasingly large cultural space and therefore do not suffice for the general language debate.

I would therefore like to suggest that there are currently two paths open for further development: a choice between either an extinction of the cyberflâneuse concept now and forever or the start of an increased use (and further refinement) of this metaphor, which would create and propagate her and her perceptive attitude.

Cyberflâneuse-Extinction

As I have tried to show, the flâneuse as a more or less exact female copy of the flâneur is difficult to sustain and probably not very attractive either. In real-life terms, the publicly accessible places and occupations for women in the 19th century were very specific and rather restricted. This started to change towards the end of the century. But even now the conditions that prevented women from entering public spaces have not entirely ceased to exist -- not in real life nor in cyberspace. This might be part of the reason for the cyberflâneuse's non-existence: cyberspace is after all still a rather male phenomenon, populated and dominated by men. But this does not seem to be a directly relevant point for this question.
More important is a continuing discursive marginalisation around cyberspace (similar to the lack of theorisation of females in public spaces in the 19th century). This marginalisation speaks e.g. of a supposed danger for women (of being harassed online) and/or a consequent need to disguise or neutralise one's gender (in chatrooms e.g.); there is pornography (instead of prostitution); and -- more recently -- there is the notion of consumption as the preferred activity for women online. These are just a few crude examples. Virtual boulevards are therefore not 'gender-neutral'.

The framing of cyberspace as a whole as female is another potential difficulty, at least according to Sadie Plant (in a debate at the ICA recently). Using the well-known cyberspace as city-space argument as a basis, she was referring to older debates around the city and applying them to cyberspace. The city was often imagined as female and therefore didn't allow the straightforward appropriation by females (unless, according to Plant, you consider it a lesbian encounter). Appropriation in Plant's sense seems to be a taking possession of the space and using it for one's pleasure. Appropriation can potentially take other forms as well though, i.e. forms that do not exclude another notion of sharing and equality and less of the possession.

But no matter what gender we assign to cyberspace overall -- does all this lead to the need to create the cyberflâneuse? There seem to be good reasons for the cyberflâneuse not to be found 'as such'. If we follow the above-mentioned flâneuse-arguments through, the flâneuse would never be the disengaged, perfect lurker, strolling purpose-free through the online shopping malls, virtual streets or WWW spaces. A flâneuse who would not really consume anything -- neither object nor subject -- and who at the same time sees the 'true meaning' of the crowd, i.e. one that is not the social reality, seems impossible. The cyberflâneuse as the image of the female copy of the cyberflâneur would imply all these though (as well as the self-delusionary grandeur).
Since the flâneur is himself a rather ambivalent and difficult character -- and the cyberflâneur is even more so -- why shall we not let the cyberflâneuse rest in peace and give up on the idea of her here and now? Women (and whoever else wants to use cyber-/-city-space in a way which leaves some crucial parts of the original flâneur behind) could instead look for entirely new versions of virtual spaces and their appropriation -- like, for example, the many 'grrl'-- and female-only sites are doing. Maybe one could laugh off the cyberflâneuse (and the cyberflâneur?) as something fascinating, but after all not applicable. Welcome to a cyberflâneuse-free world?!

Cyberflâneuse-Creation

On the other hand, even if the cyberflâneuse as such, i.e. the terminology, does not exist, one could still create her. In order to do that, one would need to use the new flâneuse attributes that have been found so far in the flâneuse-debate. Her creation might be important precisely because the cyberflâneur exists and needs a counterpart. One would need to create her as having an essentially different perceptive attitude. In terms of online engagement, the 'distance', i.e. the detachment from the social reality, would still be missing. The cyberflâneuse would therefore have to be a pursuing character -- someone who does not only lurk, but who acts. She takes a rational, realistic viewpoint concerning her surroundings, facing social reality rather than using the mass as a veil. She would

identify with others online when necessary, i.e. not objectify subjects and not subjectify objects. She would not identify with the technology as such and could therefore not be a cyborg. Neither would she be a postmodern, constantly changing subjectivity. Instead of self-delusionary grandeur, she would have a rational self-assessment. She would move through cyberspace and appropriate it, but in an engaged and engaging way. While the flâneur is not allowed to choose to become himself (at least not in the original version), she would very consciously embrace the role as a cyberflâneuse. He loses out when he chooses himself, because he becomes conceited, while for her it is the announcement of a specific openness to her surroundings.
Some traces of these flâneuse-attributes have already been detected in the online worlds. It has been claimed, for example, that women can be seen to be altogether more focussed on the outcome of online information retrieval than men. According to Bettina Lehmann, women's search is supposedly more specific, i.e. aimed at finding things rather than pure surfing. Lehmann also claims that there is a specific female way of dealing with the Internet in general. This way focuses on social contacts. Women do not consider the new technologies to create distance, but to overcome it (Lehmann, 1997:339). Many of the mainly female sites seem to underline this.

But the cyberflâneuse would not necessarily be female or have to be female. Her creation is more about the newly found attributes concerning a particular kind of appropriation of cultural (cyber)space rather than necessarily about male/female notions. The idea is not one of an essentialist approach. Their might be a greater need for females to use these identifications, but this should not include anyone else to identify with the attributes and consequently name themselves as such.

Remaining questions?

One could be tempted to ask what of the original flâneur-attributes would be kept after all these additions and subtractions which would still justify the terminology at all. It is a form of taking possession of space, a perceptive attitude. It is also the curiosity concerning the newly emerging and a try to come to terms with it which is portrayed in this. Hence the virtual city is partly a dreamscape and as such it offers itself to the cyberflâneur.
As an exciting and challenging social space, it offers itself to the cyberflâneuse.
Destroy or create? The cyberflâneuse's fate is up to you!
And soon to come: your space to react! At :
www.flaneur.net…

References:

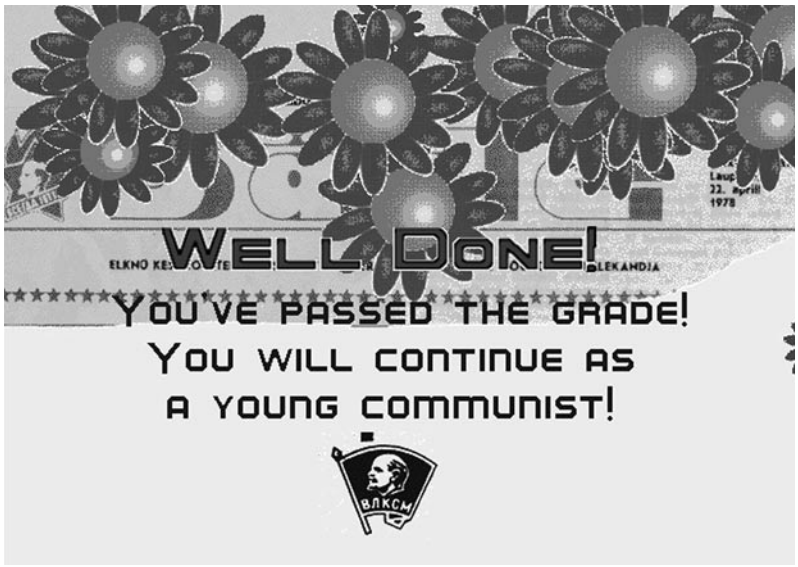
Benjamin, Walter (1997): Charles Baudelaire – A Lyric Poet in the Era of High Capitalism. London & New York: Verso.
Bickenbach, Matthias & Maye, Harun (1997): Zwischen fest und flüssig - Das Medium Internet und die Entdeckung seiner Metaphern. In: Gräf, Lorenz & Krajewski, Markus (eds.): Soziologie des Internet. Handeln im elektronischen Web-Werk. Frankfurt / New York: Campus Verlag, pp.80-98.
Bolter, Jay David (1996): Die Metapher der Stadt im elektronischen Raum.
http://www.heise.de/bin/tp-issue/tp.htm?artikelnr=6000&mode=html (17/04/98)
Bowlby, Rachel (1992): Still Crazy After All These Years - Women, Writing and Psychoanalysis. London & New York: Routledge.
Buck-Morss, Susan (1986): The Flaneur, the Sandwichman and the Whore: The Politics of Loitering. In: New German Critique. No.39. Fall, pp.99-140.
Canzler, Weert / Helmers, Sabine / Hoffmann, Ute (1995): Die Datenautobahn - Sinn und Unsinn einer populären Metapher.
http://duplox.wz-berlin.de/docs/caheho (3/12/98)
Ferguson, Priscilla Parkhurst (1994): The flâneur on and off the streets of Paris. In: Tester, Keith: The Flâneur. London & New York: Routledge, pp.22-42.
Flâneur (1998): Der Flâneur. http://sopro.com/flaneur (20/08/98)
Harris, Cheryl (1996): An Internet Education. A Guide to Doing Research on the Internet. Belmont: Wadsworth.
Idensen, Heiko & Krohn, Matthias (1997): bild-schirm-denken. http://www.utopia.or.at/transit/kunstgespraeche/idensen.html#9 (07/07/97)
Kimbell, Lucy (1997): Cyberspace and subjectivity: the MOO as the home of the postmodern flaneur. http://www.soda.co.uk/Flaneur/flaneur1.htm (20/10/97)
Lehmann, Bettina (1996): Internet - (r)eine Männersache? Oder: Warum Frauen das Internet entdecken sollen. In: Bollmann, Stefan & Heibach, Christiane: Kursbuch Internet. Mannheim: Bollmann Verlag, pp.333-354.
Mitchell, William (1995): City of Bits. Space, Place and the Infobahn. Cambridge, Mass. & London: MIT Press.
Nava, Mica (1996): Modernity's Disavowal – Women, the city and the department store. In: Nava, Mica & O'Shea, Alan (eds.): b0Modern Times. Reflections on a century of English modernity. London & New York: Routledge, pp.38-76.
Pollock, Griselda (1988): Vision and Difference. Femininity, feminism and histories of art. London & New York: Routledge.
Porombka, Stephan (1997): Der elektronische Flaneur als Kultfigur der Netzkultur. http://www.icf.de/softmoderne/1/Hyperkultur/text/Po_1_1.html (24/06/97)
Stone, Allucquère Rosanne (1995): The War of Desire and Technology at the Close of the Mechanical Age. Cambridge, Mass. & London: MIT Press.
Williams, Raymond (1980): Base and Superstructure in Marxist Cultural Theory. In: Williams, Raymond: Problems in Materialism and Culture. London/New York: Verso, pp.31-49.
Williams, Raymond (1974): Television. Technology and its Cultural Form. Glasgow: Fontana/Collins.
Wilson, Elizabeth (1992): The Invisible Flâneur. In: New Left Review. No.191. January/February, pp.90-110.
Wolff, Janet (1990): The Invisible Flâneuse: Women and the Literature of Modernity. In: Wolff, Janet: Feminine Sentences: Essays on Women and Culture. Cambridge/Oxford: Polity Press, pp.34-50.

Mare Tralla

Cybertides of Feminism

A conversation between Mare Tralla and Iliyana Nedkova about cybertides of feminisms, politics of parody, stereotypes and the weblife of an artist, previously known as the disgusting girl or earlier as a young communist pioneer.

IN: We are about to click our way through 'her.space' and set the scene for any potential visitors. With its distinct concept and structure the 'her.space' CD-ROM is the first digital artwork of yours which advocates for its own space as it is accentuated in the title. The first buds of 'her.space' sprung up as a research work while you were doing your MA course in Hypermedia Studies at the University of Westminster in 1997. Two years later this on-going work of yours still holds some experimental charm for you. How did 'her.space' come into being?



MT: 'her.space' is distinguished from my earlier work not so much in its concept and content but in its language. While at Westminster, I was overwhelmed by the MA courses' heavy stress on the commercial design language. I have grown concerned with circumventing this strong influence and eager to avoid the trappings of commercially driven creativity. I was searching for a consistent visual voice and interface, which will be miles away from the high-profiled corporate culture. I wanted to introduce this hand-made craft feeling on the screen. This was also crucial for my practice as a woman digital artist as I was regarded less professional than my male peers because of my preference to work in more intimate ways. I wanted to establish and prioritise this personal approach. Even the stories in 'her.space' that look back to the Soviet times are just personal factions, which dip in stereotypes.

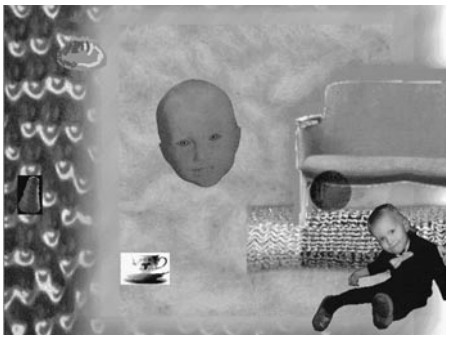
IN: On revisiting 'her.space' and some of your earlier and current projects, I can argue that you are concerned with constructing and voicing your personal ideology. Jumping backwards in our parallel pioneer childhood in the late 1970s, it is important to recognise and accept that we have self-ideologised our personal lives to a far greater extent than the official communist ideology needed us to. Another recurrent feature, which also comes up in 'her.space', is your fascination with reality checks. I think we can agree with Katrin Kivimaa [in Springerin issue 3-4/1999, p. 10 on translocation_new media/art] who identifies the three main realities in your works by saying 'Tralla traces contradictions and dead-ends but also compatabilities among three main different social realities (national Estonian culture, the Soviet regime and the West) that influence the process of Estonian identity construction in general'.

So, perhaps you can take us step by step into this meandering habitat which checks out at least three realities not counting the virtual one. We are right at the doorstep. Would you comment on the very opening? What is the key to your/her.space?

MT: I wanted to welcome people straight into a pink and soft space but in order not to make it so predictable and lovable I have introduced a disturbing soundtrack. I have rediscovered a well-forgotten diva MILIZA KORJUS -- an Estonian opera singer from the 1920s who made herself a Hollywood celebrity but didn't quite receive her deserved recognition at home. Her extremely high-pitched soprano voice suited my vision of creating an annoying soundscape composed of tiny looped bites as if to counterpoint the rosy, fluffy world which opens up at first. You do employ various sound strategies throughout 'her.space'. You often use your own voice or recycle other free-floating bites, like

children's toys. Underneath there is a lively compilation of sounds with known and unknown origin worthy of any contemporary sound artist/composer.

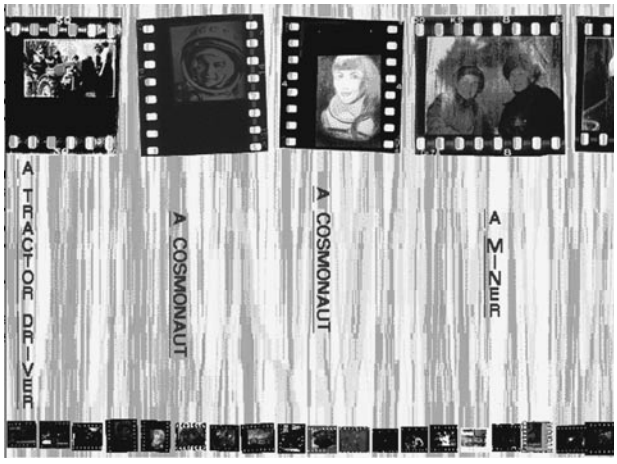
IN: The effect being on the verge of peppy political satire and computer commands like Remove the eyes and leave on the ears which is far from its original meaning of how to cook a pig's head. This, I find, is very true Mare's, for you are always trying to approach the daily events through this 'politics of parody', arriving at a poignant or entertaining edge to your space. By borrowing this term from Rosi Braidotti as quoted by Katrin Kivimaa (Cyberfeminism with a Difference. In Feminisms, eds. Kemp, Sandra and Judith Squires, 520-529. Oxford Readers. Oxford, New York: Oxford University Press) I believe that through this parodic repetition you are acquiring a politically empowering position and also joining in the well-exploited feminist strategy of using irony and laughter as major stylistic device while providing critique of social practices of signification, especially those related to the issues of gender. (Katrin Kivimaa, 1999).



We have just been ushered into the baby.room.

MT: This is the baby space where one can procreate as many babies as one wants. The babies come up on the screen under a re-mix of mine on a Prodigy's 'I've got a POISON'. In my parody-version the words are 'He got me pregnant, I got the baby'.

IN: We are not only haunted by the Prodigy-like abusive sound but also by the explosion on the screen of more and more children of all age groups. You have also introduced a newly born baby game, which is more of a witty critique on the long-standing Barbie culture and the beauty products industry. In your game virgin Barbie finds herself available for TAMPON-sperms-bullets-lipsticks. You can literally shoot Barbie pregnant and what is more if one's computer is not fast enough one will be flooded with a self-generating army of babies. Which perhaps turns the game into a menage de trois and shifts the responsibility to this third neutral party -- the computer. We are proceeding now to this other large space, also overcrowded with characters but this time they are grown-ups, i.e. heroines of socialist labour. This section was under development even before you started working on 'her.space' at Westminster University.



MT: In 1995/6 I was preoccupied with stereotypes of professional women's identities. I was trying to recall how it was under the imposed Soviet times, to write and talk about my personal memories. I produced this piece of short, ironical text with which the filmic sequence of Soviet heroines starts to roll up. As a young student in Estonia I used to have this vision of a heroine who should be at least 120 kg, with artificially curled hair and possibly a tractor driver. In reality, these big women may have been very tiny and delicate beings of various occupations but I have always had this unflattering picture in my mind.

IN: Are you saying that the life stories that you have converted into little CD movies may have been of existing personalities.

MT: Few of them are more like outlined documentaries. There is a section, called cosmonauts, which will revitalise two household names for any Eastern European. Svetlana Savitskaya and Valentina Tereshkova -- the two feminine heroines of USSR -- were supposedly nurturing the leveling feeling that we are all equal. I must have been 11 when I drew this portrait of Svetlana, which I have dusted away and scanned in. Here I recall this joke that she was sent to space with the mission of checking out whether women can get pregnant up there.

IN: This social mythology ties in also very well with your goal of exploring not only your personal space in 'her.space' but any women's blues. It strikes me as an appropriate metonymy for other women's aspirations aiming straight into the unknown, the cosmos.

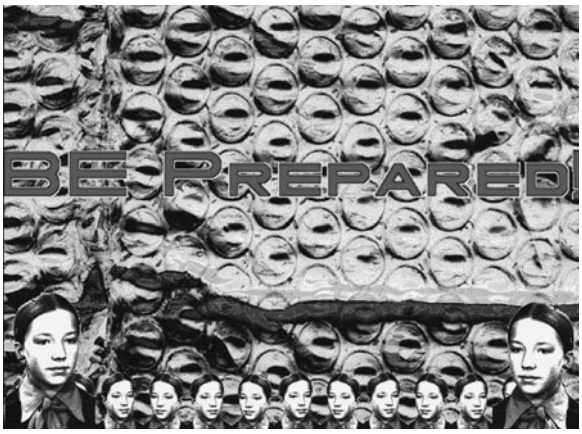
MT: We have grown up with the belief that you can actually achieve whatever you wish for even though you were female in a male dominated society and the Soviet Union was definitely one. Although the official propaganda would claim that we had enough women in the Parliament, in reality, we faced all the unresolved issues of inequality, not even recognised as problems. If a woman got raped it was ultimately her fault and the rapist wasn't prosecuted as a criminal

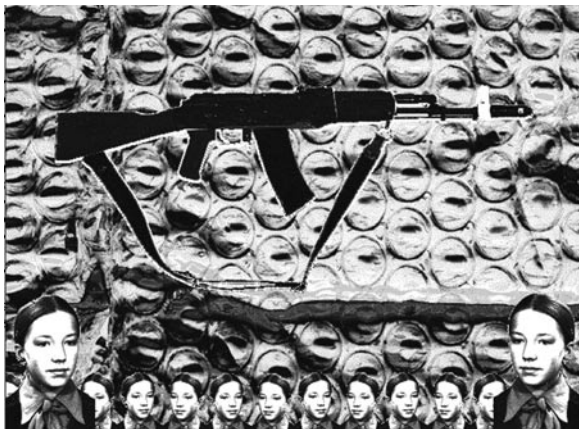
on the premises that the woman caused the rape. Furthermore, what happened in the Soviet home we would never get to know because it was all covered up and women are still largely uncomfortable to speak out.

IN: Only recently in our part of the world, women's community groups started to get together and seek professional help, various non governmental organisations started to deal with domestic violence and to raise people's awareness of a problem that was brewing for years on end.

How would you comment on the fact that from a Western perspective this cold war-inspired battlefield is the most written-about and appreciated spot in 'her.space', which presumably was to be a gun-free territory?

MT: Our space at school wasn't gun-free, either but rather a well-controlled public area. We were trained how to shoot. Once or twice a year we had to go on those military games at the open air training grounds. It must have been in our late teens, in our Komsomol years. i.e. the youth communist organisation, when we had our first real

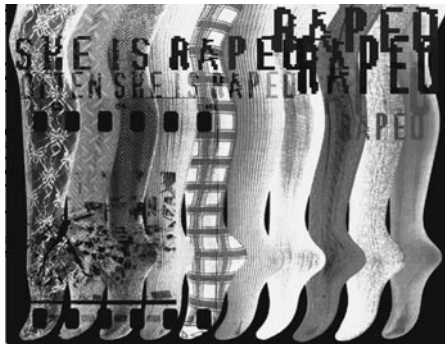




In the meantime, we have reached the hot point of 'her.space', which is the pioneer's area. This is the hotshot which you have extended into your later work, called 'Grey Word Game a la Sofia' as part of your 'Virtual Revolutions'-CD project [www.yourserver.co.uk/vr].

MT: I have coupled a mixture of my own pioneer's stories with that of official and informal history of Soviet Estonia. There is an excerpt from a little girl's diary, published in a pioneer's journal describing the anxiety and trepidations while she anticipated the moment of becoming a member of the pioneer's club.

IN: Here comes a glimpse of something familiar -- ARTEC. You are drawing upon another moment of shared experience. Although I grew up at the other, most Southern part of the Soviet Empire (Bulgaria was often referred to as the 16th Soviet Republic) and you were up in the very North, we had this superb pioneer's camp somewhere halfway through, between the Balkans and the Baltics, on the Black Sea Coast. It was called ARTEC and designed for well-behaved members who were sent on a promotional retreat with all expenses paid on an ideology-solidifying diet... Shall we click our way to the next pioneer's zone, which is also like a training ground for Kalashnikov's girls?



Kalashnikov experience. We were taught how to dismantle and reassemble a Kalashnikov and how to shoot in one of our regular classes -- things you don't necessarily need in your everyday life. We were no better prepared to be a mother or a young woman by this particular aspect of our 'all-round' education. I was attending all-girls class at the time and there were 20 of us marching up and down the road as top military officials.

IN: I find that this pioneer's image of yourself, which you have reproduced as many times as to fit the computer screen down at the bottom of the Kalashnikov page, even more shocking, but reminiscent of the military style marching of ours, all dressed up, with the red pioneers scarf on. It is due to this dense row of nice-looking, diligent girls staring across at you, a gun-shot away, which builds up the pressure in this bellicose section of 'her.space'.

MT: The image of Kalashnikov is strong and real enough as well, for I have hacked it from an old Russian military factory that have gone on the web in the hope of striking some electronic deals. They sell the guns on-line.

IN: That's what Internet is for, isn't it?

MT: I needed a verifiable image of Kalashnikov and so went straight to

the producer's homepage. Then, I dismantled it properly to all its pieces, made sure they are all hidden in the html back-ground and declared the hide and seek game in the best tradition of our military open-air lessons. When you finally get the Kalashnikov reassembled you can join this revolution of... flowers. More and more flowers will come up the screen to cheer you up.

IN: We are crossing over another parallel point here, for the Bulgarians are likewise said to have survived their national identity mostly and often through their language. I understand that language for Estonia was a 'carrier of a political function as the nation-state was missing' [Peet Lepik, 1998 Call the Things with Their Right Names, in SIRP, cultural weekly, 12/4:3 as quoted by Katrin Kivimaa]. Were you encouraged by the Soviet ideology to keep up with your tradition?

MT: We were but rather indirectly. There was the official agenda of the festival rounds of cultural days supporting our local culture but at the same time also urging us to sing like the Ukrainians or Georgians and the rest of our brother-republics. It was a climate of imposed peaceful co-existence and forced mixture of the culture of 15 republics at once. On the fringe of this cross-cultural exercise we have kept up our Estonian culture alive, especially by

tapping into the strong and powerful tradition of singing. Hence, the handsome number of choirs and song festivals in every little town, village and city across the country. Singing was more of a community movement, which the local cultural authorities managed to sustain during the 1960s through to the present. It had its protest yet celebratory element all reflected in the Estonian language. It wasn't so much the sound but the words, which were empowering. It may sound like a joke but the much-loved song 'My Homeland' was cherished because of the lyrics by an Estonian poetess despite its music arrangement by a Soviet ESTONIAN composer. So, Soviet regime was actually tricked but probably by that time that this regime was eroding itself. In history lessons we were forced to believe how repressed we were by the German landlords. But in our dissident minds we have used this same rhetoric and turned it against the Soviet rule.

IN: In this vivid section of 'her.space' you create colour-rich digital patterns appropriated from the traditional clothing as to make your visual comment on the Estonian trilogy on national/desired/imposed values and people's changing perceptions. When you click away on the colour patterns you can listen to different fractions of various folk songs. }

Let's step beyond 'her.space' for a while and trace your relationship to cyberfeminisms.

MT: My very first initiation to cyberfeminisms dates back well before the first Cyberfeminist International in 1997. It was probably triggered by the work of VNSmatrix collective, which I saw for the first time in Helsinki in 1995. In their work I saw something more than political talk. There was something witty and playful, which appealed to me, most. It was a bit of wrong timing for me because I hadn't yet plunged into digital media. Probably, my first untitled website is much closer to this first cybertide of feminism. At the time I didn't dare to declare myself a cyberfeminist for few good reasons. I wasn't happy to identify myself with this array of cyberfeminist websites that I came across in my avid websearch in 1995/96 -- an array of badly scanned images just piled up on a site and signed up as cyberfeminist.

IN: In the early days of Internet culture that was acceptable, but now it is considered poor in ideas, vision and interpretation. Your standards have grown up while you were working on 'her.space'. I understand that you were at the final point of delivering your MA at University of Westminster when you were approached by the first-wavers of cyberfeminism. Besides being busy with your work which kept you from joining first Cyberfeminist International, you also have your high expectations of your own still unfinished work. Your personal standards were so high that you didn't dare at the time to expose yourself in public, at documenta X, Kassel/Germany .

MT: I can hardly be a role model for modesty for I tend to be very self-assured and proactive but at the time I didn't quite stand up to my work, as if I hadn't reached up my own level of excellence. I found that I am not professional enough to be there because while doing 'her.space' I wanted to do it all by myself. I wanted to maintain technical control, as well. My MA course objective was to be able to produce work without relying on some techie bloke who may not like my work in its concept or integrity and may be far too lazy to process a few more seconds for me. I had this bad experience from working in a team on monthly cultural productions for the Estonian National TV. I have enrolled on this Hypermedia MA course hoping to

get the amount of technical knowledge as to be sure of what I can demand of the techie or myself in my future work. 'her.space' was really a learning curve. It took me about a year in this persistent process of teaching myself.

IN: You put together a substantial body of work -- You have also managed to squeeze and produce the 'lovelines' web project in the course of 'her.space'.

[...] Let's go back to Cyberfeminism -- how do you relate to New Cyberfeminism?

MT: If it is up to me I can't place myself into belonging to new cyberfeminism because it is far too open for me and there are things which I don't subscribe to. (I found many activities and attitudes undermining other girls previous works.) As an artist, I'd slide onto the first cybertides because of the politics of parody and laxity. Art doesn't have to be dead serious.

IN: Do you find that the new cyberfeminists are taking their efforts very seriously?

MT: There is definitely more politics on their plate now. Before, the politics was more of a hype: cyberfuture is feminine. We may probably wave around the same slogans again but at least with much more wisdom, humour and self-irony. It is probably happening already for I can't claim that I read every piece of text that deals with cyberfeminisms. Perhaps, from an Estonian perspective, I think myself more of a feminist than a cyberfeminist, which may outrage some of the Western feminists. Yet, I need to respond to my own internal connections with my first lan-guage culture. I still consider the word feminism keeps more protest and backlash even though it is overused and has a mountain of bad meanings but it is still more powerful than the word cyberfeminism -- for me.

IN: It is probably the comfortably long history that feminism has behind it. While cyberfeminism is a bit too limited in its reachout despite its potential. Do you find that the new cyberfeminists are more theory-oriented or rather searching for the political agenda? Or perhaps there is another trend at work -- on strengthening the network potential?

MT: Cyberfeminism, I reckon, as much as feminism, branches out to various trends for as a network of people from so many different backgrounds, nationalities and skills it is bound to. Therefore, the number of different ideas of how to define cyberfeminism and what or how is to be achieved in the long-run differ. (If we want to succeed in this yet unfortunately still male dominated domain we should put asides our personal benefits and work really globally not individually. In Rotterdam there was no real talk and discussion on how cyberfeminism could succeed and what we could do to be really acknowledged by the 'outside world'...

Recently, working for several month for a commercial company, almost every day I face problems as a woman techie there. Unfortunately my very personal experience in commercial world shows that those tendencies of gender based discrimination are increasing, not decreasing and not only in the world where women are working with technology. Yet, the so-called 'new cyberfeminism' only pretends to take more political and active position torwards those and other problems. As it happens, we are just cultural 'nobels' and do not have real impact to real life.

April/May 1999
London/Liverpool/UK & Cyberspace

Edited by Mickela SONOLA

Marina Grzinic

Cyberbodies[2]

or more stories about the political of the cyberspace

Trinh T.Minh-ha has proposed a model for rethinking Asian space and the so-called third world through the concept of the "inappropriate/d Other". This can also be seen as a possible useful tool to develop specific concepts of reading of the former Eastern European territory. It is time to find and to re-write paradigms of specific spaces, arts and media productions in Eastern Europe. The whole of Eastern Europe is functioning like a symptom of the developed West especially in media or when using avant-garde media and art strategies. In examining the parallels between East/West, we can find in the Eastern European media and art productions important examples of perverted and/or symptomatic logic of Western media strategies and visual representation connected in quite different ways.

This can be shown with the example of the use of pornographic representations, which is something that is not generally regarded as acceptable in the West because pornography is seen as the part of the commercialization or consumerism of both the body and the media. In Eastern Europe, however, if we use pornography or pornographic visualization in the media as a political stance, as a form of resistance to political conformity rather than sexual liberalization, then we get a completely inverted reading of what pornography represents.

In the same context, tribalisation can be also seen from another positive standpoint. While the connection through the mass media of underground tribal groups is often presented as a form of tribalisation and frequently seen as a specific case of globalization, I propose to reflect these processes differently: to see the production of the global connected just or merely to the growth in mass media communications, where in the case of tribalisation class issues still form the main system underlying a tribes identity.

In ex-Yugoslavia when tribalisation was used to talk about genocide then one realized, for example, just how dangerous the use of this term can be. Most of the serious analysis that has been done concerning the war in ex-Yugoslavia has reached the point where it is actually very clear who started the war and why and that this war was a very classical war for territories. It was started by the Serbian military and political elite. However, during the war in Bosnia/Herzegovina, tribalism became a very good shelter to hide the real reasons that were behind it. To represent this war through the myth of tribal groups that once had equal rights and now are fighting against each other became a very good way to shift the world's gaze away from the actual reasons for fighting.

In this sense a stereotype is always functional and effective. Because a stereotype forms a kind of pattern that allows you to hide everything that is generated outside the stereotype. This is how tribalism was used in the war in Bosnia/Herzegovina as a recourse to myth, as a means to hide the facts and as a sort of mythical re-reading or re-interpreting of the social and political space in Bosnia and Herzegovina.

When the war started in Slovenia, on 25th of June 1991, and though it lasted for just 10 days, I remember that in the early morning when I switched on the TV and it was announced that the war had started, two years before I had watched similarly the Rumanian Revolution through Belgrade live TV. I watched TV a great deal trying to get as much information as possible about the war in Bosnia/ Herzegovina. When the war was at its height, it was not possible to get up-to-date information, only CNN and the rather stereotyped forms of mass corporate information.

I remember in the beginning of the war in Bosnia/ Herzegovina when the ex-Yugoslav army kidnapped the President of Bosnia/ Herzegovina, Alija Izetbegovic, it happened that the kidnapped, the kidnappers and the members of the remaining Bosnia and Herzegovina political group in Sarajevo could all talk on TV only or while the TV was broadcasting live ! So, we were sitting in our living room watching something both peculiar and horrible at the same time on TV. These moments were important, because they changed our view of the media and of the public sphere. It is not possible to look at TV in an innocent way anymore.

The war in Bosnia/Herzegovina demonstrated also in which directions it is possible today to develop the new and the old media spaces. Cyberspace can not be only a space for free communication as it is also a hybrid and highly political space. The war in Bosnia/Herzegovina showed this clearly because for political reasons it was not possible to use satellite communications, instead the main channel of communications was operated by radio

amateurs who spread information and reported live from the frontlines of the war. Individuals broadcasting via so-called amateur radio equipment were often used directly on Slovenian TV's prime newstime. With the war in Bosnia/Herzegovina, it was possible to see actually a reversal of the hierarchy of media--through cyberspace, internet, radio--because the radio broad-casting was more important than all the internet tools and/or satellite connections. Sometimes the television couldn't show anything else and instead allowed the viewer to hear the real audio from the amateur radio broadcasts. So, in this way, the war in Bosnia/Herzegovina could teach us a lot about media technology, about its redistribution and about the political effects of communications, if we were not looking at it solely from the ethical or moral standpoint, for when we are confronted with the atrocities committed there, we became speechless.

The mass of new technology today are designed to produce completely shiny, glossy images. VHS technology on the other hand might allow us to produce an almost wounded surface on the electronic image. To put the body back in the image, maybe we should look to the possibilities of scratches and random dirt effects and not just to glossy and shiny surfaces. Maybe it is only possible to realize a physical body, the senses, the moment when our body stirs into action, through mistakes and errors in the image.

Mistakes in the image are like a fingerprint on the film, a scratch or scars on the skin, these are the evidence of existence of the image. To make a mistake is to find a place in time. A mistake is like a wound in the image, it is like an error in the body. This is a situation of producing a gap, a hiatus, where we can insert not only a proper body, but an interpretation. You can actually point with your finger and say: Here, in this mistake, there is something beneath. In the history of psychiatry, such a mistake is the symptom.

The whole of psychoanalysis is based on the theory of symptoms. The symptom is actually 'the thing', the subject who is speaking, and tells more than the subject itself, in our case the video image, could tell. We can actually think about the scratch, about the mistake, as a way of, in Jacques Derrida words, developing the logic of remarking (re-marque). The logic of remarking is similar to the function of the mistake or of the symptom, what at first seemed an informative, general view of an event, a shot, so to speak, from a neutral, objective distance, may be seen as subjective and suddenly turn out to be both, threatening and embodied.

In such a context, it is possible to establish an important connection between the image and the power structures which form and surround it and to approach the image video or film etc., as part of a larger system of visual and representational communication. This approach is fundamentally concerned with the articulation of a representational politics. The politics of representation in terms of the video image is not something that is directly connected with everyday politics but it is connected in so far as the aesthetics of the image is always inscribed in a field of power. Power takes different forms and similarly a video image as a form of representation has therefore different connections with different types of power. It is very important, especially today when there is the tendency to talk about poetics, to talk in this respect, about the politics of representation of the video image.

Screenshot from the video 'On the Flies of the Market place', 1995, Grzinic/Smid

While we have to think not only about the relation between media, images and politics in general, or about the situation of democracy in relation to media images, but also of the internal politics of the image. In todays world, photographic, electronic and digital images are at the point of effective disintegration. Even with a very small PC we can manipulate every image. Photographic images especially are losing their credibility, for example, in the process of judging events in the world. Images, and especially photography, are at the point of questioning their internal reality effect. This is not simply a question of truth or falsity. Questions of plausibility and implausibility over-ride those concerning whether an image is simply true or false. The problem, therefore, has no longer to do only with the mental images and consciousness, but with the paradoxical facticity of new media images, especially computer generated photographic images.

In December 1997 TV Tokyo suspended the weekly regularly broadcasting of the popular Pocket Monster cartoon, known as Pokemon, because nearly 700 people, mostly

children, nationwide were taken to hospitals after watching the show on 16th of December 1997. TV viewers were afflicted by an outbreak of convulsions and faintness, ending with catalepsy. The Pokemon-scene which had caused this, can be described as a four-second of flashing red, blue, white and black lights. It was a kind of strobe flash, like second sunlight, an extra bright-ness, something so bright that it resulted in both blindness and catalepsy amongst the TV viewers. The Japanese National Association of broadcasting industry immediately launched an investigation into the whole case.

Screenshot from the video 'On the Flies of the Market place', 1995, Grzinic/Smid

Pocket Monster is one of the leading metaphors of Japanese pop culture, a culture which is addicted to cartoons. Through this example about Pokemon it is possible to discuss some other important points connected with the relationship between our physical body and the image. While I wish to avoid falling into the mass psychological hysterical readings of the always bad and dangerous in-fluence of the TV upon generations of viewers, let us try to establish an almost heretical interpretation of the event. We could say that the TV epilepsy-like illnesses brought back to a mass of TV viewers the reality of their physical bodies. The human body has been for almost more than a century captured or frozen as images by photography. It has been approximately 120 years since 1877-80 when the psychiatrist Martin Charcot, at the Paris' Salpetriere hospital, took photographs of his hysterical patients with the purpose of making the illness visible (due to the underlying pathology of hysteria being invisible).

Here, in the 1990s, the body fights back! With Pokemon's hysterical suffering body we witness a reaction, a disobedience, to the until now immobile or frozen body's relation to the image. Hysteria was recognized as an illness only through photography making visible the woman's hysterical body. The success of photography in capturing hysteria had to do precisely with the mechanisms internal to photography, which are connected with its "reality effect" and with the photographic apparatus' potential to freeze the convulsive and hysterical body.

It seems that today in a world overfilled with images, to make the body visible and to remind ourselves that we have a physical body, the body had to fall back again into hysteria, into an outbreak of convulsions and fainting. On the other hand, Pokemon allows us to discuss the idea of total visibility constantly produced by the mass media. But this kind of total visibility is just media-processed, it is simply another form of misconstruction.

In reality we have, as Peter Weibel once noted, zones of visibility and zones of invisibility. The Pokemon Cataleptic Tuesday event (Pokemon has been aired every Tuesday since April 1997) did not only bring us to the core of the processes of representation and to the so-called zero point of representation in relation to the physical body, but it represents an almost psychotic appearance of these phenomena, by mass media, as constantly hidden zones of invisibility. These zones flashed for a moment so brightly on the surface of the image, they allowed the body to become blind and hysteric.

So, it is really a question of how to put the body back in the picture, and also how to be conscious of the physical body. This also raises questions of techniques of aesthetics which has relied on effects designed for the eye.

REFERENCES:
Marina Grzinic, Rekonstruirana fikcija : novi mediji, (video) umetnost, postsocializem in retroavantgarda : teorija, politika, estetika : 1997-1985, [Fiction Reconstructed. New Media, (Video) Art, Post-Socialism and Retro-avantgarde: Theory, Politics and Esthetics: 1985-1997], SOU, Koda, Ljubljana 1997.

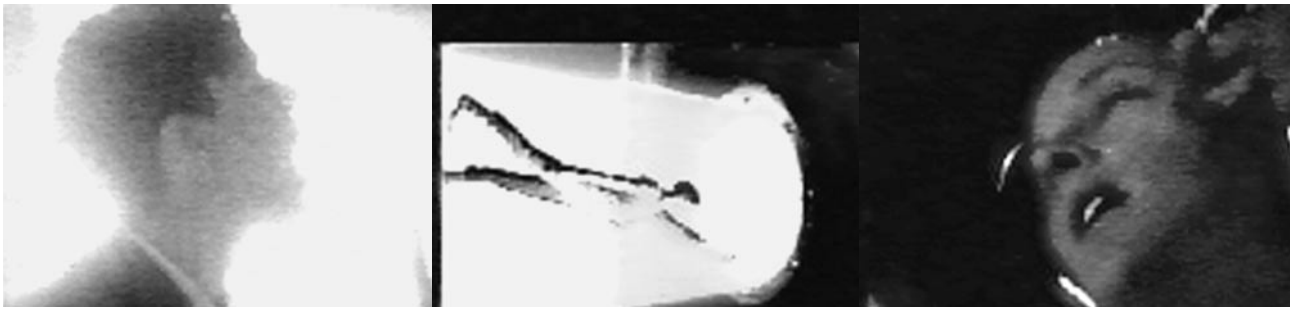
Claudia Reiche

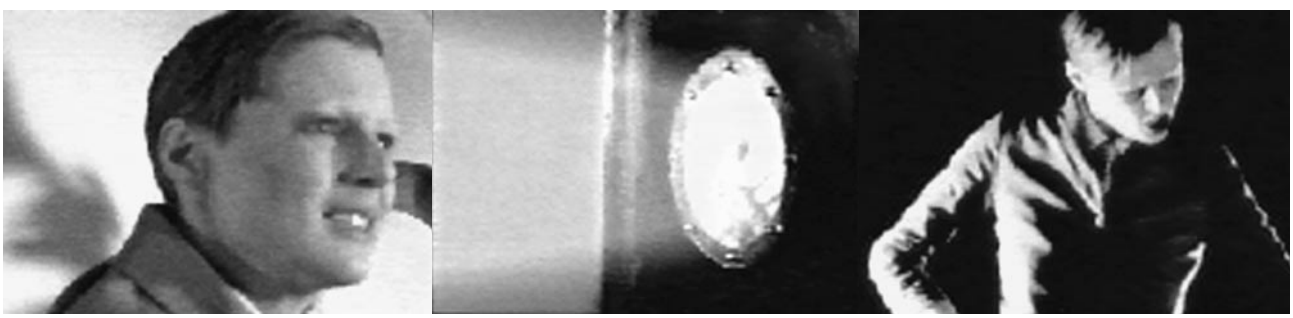
suggests an erra[o]tic filmic masterlpiece as cyberfeminist reflection:

Dandy Dust

UK/Austria 1998, 94 minutes, 16mm, colour, optical sound
written, directed and edited by Hans Scheirl

Cast and crew:
Hans Scheirl(Dandy Dust)
Suzie Krueger (Cyniborg)
Leonora Rogers-Wright (The Twins Mao & Lisa)
Svar Simpson (Spidercuntboy)
and
Del LaGrace Volcano
Sarah Schulman
Special Guest Star: Angela de Castro (Theodora)
Jana Cipriani: Director of cinematography, Digital animations
Nigel Reed: Miniature-model, F/X cinematography, lighting
Amory Peart (Production, Costume design)
Jewels Barker (Sound design)Yossarian, Emma EJ Doubell, Bent (Music)





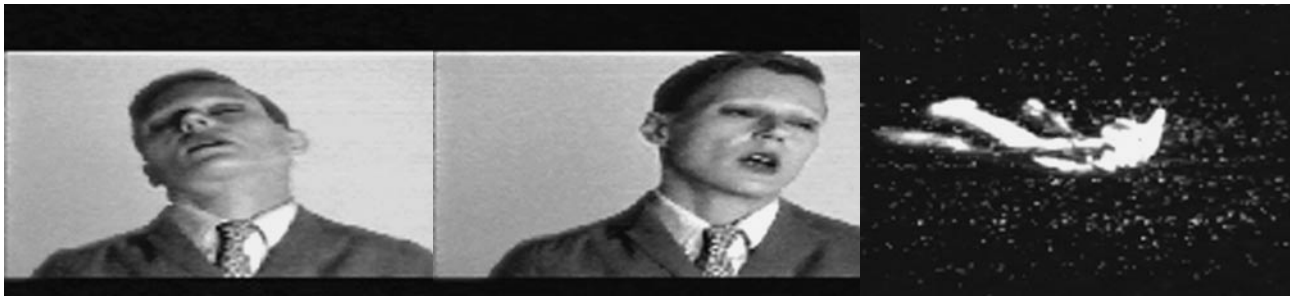
Hans Scheirl — : S Y N O P S I S :
A SPLIT-PERSONALITY CYBORG OF FLUID GENDER ZOOMS THROUGH TIME TO COLLECT H-SELVES IN THE FIGHT AGAINST A GENEALOGICALLY OBSESSED FAMILY:


DUST CRASHLANDS ON THE CYBERNETIC **PLANET OF 3075.**
H- MEMORY DISC IS TAKEN OUT BY SCIENTISTS: THE TWINS, WHO HAVE GROWN THE PLANET THROUGH PARTHENOGENETIC CONCEPTION. DUST BECOMES A NATURAL MEMBER OF **3075'S** CHEMO-SEXUAL STRUCTURE.

STRANGE CREATURES START TO HAUNT -H-: **DANDY**, A FORMER SELF, INHABITANT OF THE **PLANET OF BLOOD & SWELLING**; SUPERMOTHER **CYNIBORG**, OBSESSED WITH REPRODUCING A CORRODED CLAN INSIDE THE FLYING FAMILY-CRYPT THE **MOTHERSHIP;** FATHER SIR SIDORE; A REPRESSED 18TH CENTURY ARISTOCRAT; A DUSTY **MUMMY** & THE MYSTERIOUS **TWINS.**

IN ORDER TO WARD OFF THE ZOMBIE-FAMILY, DUST IS FORCED TO RE-MEMBER: GO BACK IN TIME TO COLLECT -H- LOST SELVES WHICH ARE STUCK IN DIFFERENT TIME-SPACES. BUT THE EFFORT TO BECOME ONE [**DANDY DUST!!]** BEARS DANGERS

…OF MEGALOMANIAC MULTITUDE!!!



DIRECTOR'S NOTES

THE SPECIAL-EFFECT IS
THE CYBORG'S TRUE NATURE!

AGAIN&AGAIN CY RE-CREATES H-SELF USING ALL KINDS OF EXTENSIONS OF MATERIAL(FETISH) OR IMMATERIAL(FANTASY) NATURE. THE CYBORG HAS A HARD TIME USING THIS LANGUAGE (EVEN WRITING A 'SIMPLE' SYNOPSIS BECOMES A FEAT: S/HE/MACHINE/TV-DUST/SELF-CLOUD - HUH??). BUT BEAR WITH ME! FLUID IDENTITIES ARE READABLE VISUALLY IN

KINETIC SHAPESHIFTER F/X CINEMA!

INSPIRED BY SPLATTER-CINEMA AND HONGKONG + JAPANESE LIFE-ACTION
COMIC-STRIPS, I HAVE SET ABOUT TO MAKE CONTEMPORARY 'HORROR'-CINEMA. THE STORY STANDS FIRMLY ON A TRADITIONAL, FREUDEAN HORROR-FILM SET-UP:

> SOMEONE LANDS IN THE FUTURE AND HAS A HAPPY LIFE UNTIL THE MONSTERS OF THE PAST COME TO HAUNT H AND TRY TO GET H BACK INTO THE REALM OF THE DEMONS. IT TAKES A LONG TIME FOR H TO GET READY TO FIGHT THEM, BUT EVENTUALLY S/HE DOES, WHICH SEEMS TO BRING H CLOSER TO A TRUTH...

BUT, AS IN SPLATTER, THE HORROR-DEVICE: 'DO NOT LOOK!' IS SUBVERTED INTO: 'DARE TO LOOK AND I SHOW IT TO YOU: IT IS EVEN BIGGER AND MORE JUICY THAN IN YOUR NIGHTMARES!' THE **SPECIAL-FETISH-EFFECT** IS ANTI-REALIST, CHEAP & RIDICULOUS, AND HOPEFULLY EXUDES COMIC, POETIC AND EROTIC CHARM.

MY GOAL IS TO CREATE MY OWN VISUAL LANGUAGE TO EXPRESS THE HYSTERIC STATE OF THE TECHNOLOGICALLY EXTENDED HUMAN AT THE FIN-DE-MILLENNIUM, WHOSE SELF IS BUT A CLOUD OF H MOST PROBABLE WHEREABOUTS, FLOWING WITH EASE INTO THE TECNOSPHERE. FINALLY MIRRORED BY OTHER CYBERNETIC SYSTEMS, THE CYBORG REALIZES THAT 'SELF'-CREATION LIES AT H FINGERTIPS. A CYBORG'S LIFE IS **EXPERIMENTAL** ALWAYS.

THE MYTHOLOGIES OF SEPARATION & MERGING ARE BEING RE-WRITTEN!

ON THE ONE HAND, >DANDY DUST< CAN BE DESCRIBED AS A: 'PSYCHO-VOYAGE OF A SPLIT-PERSONALITY CYBER-DANDY', ON THE OTHER HAND, IT IS ALSO A POETIC RE/CREATION OF OLD AND CONTEMPORARY MYTHOLOGIES. E.G. >DANDY DUST< RE-TELLS SOME OF THE BIG 3W[WHITE/WESTERN/WAR] LIFE&DEATH-EPICS AS COMIC-STYLE MINIATURE EVENTS: THE CREATION OF WO/MAN OUT OF DUST/A BONE, OEDIPUS, THE MIRROR-SCENE, FASHISM'S REPRODUCTION-CONTROL MANIA, THE IM/EXPLOSION TRAUMA OF THE ATOM-BOMB >>>WHEN THE SMALLEST BECOMES THE BIGGEST, DUALISTIC THINKING IM/EXPLODES INTO/OUT OF/ITSELF.

DIRECTOR'S NOTES CONT.

SPECIAL-EFFECT=CHARACTER

THE CHARACTERS IN >DANDY DUST< ARE COMIC-STRIP CHARACTERS=GRAPHIC MATERIALIZATIONS OF EXPRESSIONS
E.G. >DANDY DUST< IS:

✪ BORN FROM WASTE-MATERIAL OF WAR&RAPE CULTURE=AN OBSOLETE SYSTEM BASED ON VIOLENCE AS ITS MAIN LANGUAGE OF ANGER.
✪ INFORMATION-SOAKED'NOISE': FABRIC OF THE TELE-WEB: TOO MUCH MEMORY!
✪ 'DIRT': THE CHARACTER OF EXCESS. THE GRAIN OF LOW-RESOLUTION MEDIA.
✪ A DESIGNER-DRUG: ITS NARRATIVE DESIGN OF MULTI-LEVEL/PUZZLE/INTER-ACTIVE CAUSE&EFFECT ACTION ALWAYS HAS NEW SURPRISES IN STORE AND LENDS ITSELF TO MULTIPLE VIEWING: TO COME AGAIN AND AGAIN!

AS DOMINANT CULTURE HAS TO BECOME UNIFORM TO NOT GET HOPELESSLY SCATTERED ACROSS A DIVERSIFIED LANDSCAPE, INTER-ACTIVE CINEMA (FORMERLY CALLED: 'CULT'-CINEMA) HAS A CHANCE TO SEDUCE AS IT CELEBRATES DIVERSITY, PLAY & TRANSFORMATION.

SEDUCTION!

[THE LANGUAGE THAT SURPASSES THE LANGUAGE OF PUNISHMENT]

D@D@ HAS A PASSION FOR SEXUAL SELF/EXPRESSION. THE SEXUAL CONTENT IS HYPER-FETISHIZED, OR SHALL WE SAY: HYPER-'EFFECTED': ARTIFICIAL, OUTRAGIOUS, GOOD LOOKING, IN SHORT: CAMP [WHICH STANDS FOR: FUN IN DESPERATION, REBELLION AGAINST A PLEASURE-FEARING SOCIETY].

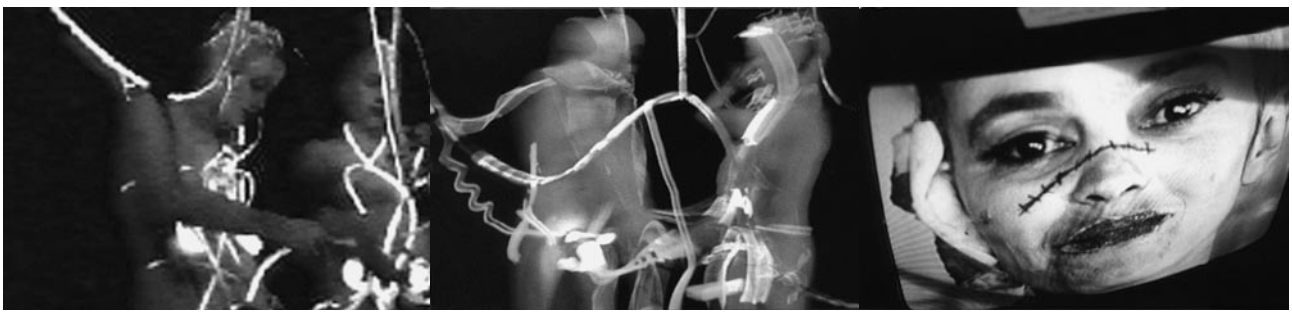
THE FILM'S SPACE/TIME WEB OF CAUSE&EFFECT ACTIONS IS GIVEN COHERENCE THROUGH THE 'MAIN CHARACTER's OMNI-PRESENCE. ALTHOUGH FRAGMENTED AND MULTIPLE, HER/HIS PRESENCE IS FELT THROUGHOUT. IT IS AN INTIMATE PRESENCE, CONVEYED THROUGH THE SOUNDTRACK. I PLAN TO RECORD THE VOICES IN EXTREME CLOSE-UPS: WHISPERED & FRAGMENTED. IT IS AN INNER MONOLOGUE AS WELL AS A TELEPATHIC DIALOGUE. THE FILM-SOUNDTRACK WILL BE BUILT ON AN EXTREME CONTRAST BETWEEN SMALL, FETISHISTIC AND PREFERABLY BODY-GENERATED NOISES & SOUNDS AND BIG & DRAMATIC B-PICTURE-STYLE MUSIC: AFTER ALL, ROMANTICISM IS CREATED IN THE SOUNDTRACK! I AM COMMITTED TO USE ALL THE TRICKS OF THE TRADE:

>DANDY DUST<'s BODY
IS PASSIONATELY CINEMATIC!

☆

DandyDust|Data from Claudia Reiche's desktop

<The film 'Dandy Dust' crossbreeds a multitude of literary and filmic discourse fragments, quotes and distorts cinematographic history, using the filmstrip technically and essentially as a strange kind of 'cyberspace'.That is the medial, unifying platform of a space situated inside as outside: overturned like a used glove or a tunnel-simulation penetrating into the depth of the virtual at the border of your crt-screen. 'Dandy Dust' is an eloquent filmic incorporation of the imaginary shifts of what identity, body, gender or even a narrative could be in 'information age'.>



<I'd like to present 'Dandy Dust' as a cultural realization of information- and bio-technology. That means to read the film: in relation to some technologically triggered ideas of a Subject as a data structure, as an information processing bio-system. That means – open to control, manipulation and simulation. The thesis is: 'Dandy Dust', the film of Hans Scheirl, is a bright documentary of the state-of-the-art of information technology as a cultural form – and in this way it' s on the cutting edge of today's information technology. How is this possible? 'Dandy Dust' is materially based on a media technology existing for over 100 years. Today made of tri-acetate covered with a photosensitive layer. Isn't this outdated? I don't think so. For the realization of new technological possibilities, the changing organisation of everyday life, the changing structures of perception, the new philosophies upcoming with new technologies, and the politics towards or against the use of it, are – in transitional times – to be reflected in the old media, as is text as well. These changes seem to imprint traces in traditional cultural forms, to become 'real'.>

<This practice is named by Hans Scheirl with a word you should see printed. Imagine a D and the following character is an @ as in an email address, followed again by a D and an @ again. In his 'D@D@ Manifesto for cyborg for the dada of the cyborg embrio' Hans Scheirl gives a sort of dictionary of dada and D@D@. It says: 'dada: (...) EJACULATE, PISS, TEARS, BLOOD, JOKE, MUD, FOUL LANGUAGE, WASTE, BROKEN BONES, MOULD, SLIME, MISTAKE, CUT-OFF PENIS+ HEAD+ ARM, RIPPED-OUT HEART & INTESTINNES

D@D@: dada; DANDY DRAG DADDY DADAISTS; CYBERNETIC CULT-PRODUCTION AROUND THE FILM >DANDY DUST<'

That's really tricky and trappy and presents one of the elements of 'Dandy Dust', performed en minature on every plane of production in and around the film: - that the explanation for dada, is in the first place linked to bodily fluids, and a distorted, mutilated, castrated body - (reminding me of the classical theories of filmic montage, assembling life like a surgeon in a new way).

In the second place dada is equated to the informational d@d@.

In an e-mail exchange I asked Scheirl, how he 'would pronounce 'd@d@'? As 'DadDad' with an underlying 'father' or with the allusion to death, like 'deaddead'? Or like the english version of the french/german dada?' He answered, that 'all these possibilities are very nice, and that the meaning/ the sound is not fixed. I thought of a squeaking and hooting datdat. In a TV doc William Gibson pronounced data in a way that I thought we was referring to dada. **' There were two little characters added to this remark, two stars. I think this little story tells the sublime crossover as a literally performance, performing letters. Creating the space between speach and print with the signifiers shifting squeakingly to the subject of 'Dandy Dust': to the transition between media and their discourses.>

<Time, space, gender, person (alive or dead) - these are not easy ... to distinguish, as soon as one dives into the riskily swarming and flitting image-stacks of 'Dandy Dust'. How should one: as a shrill green sign-post named 'cyberspace' shows imagination the way -- pushing it into the chanels of what will have been its own particular unimaginable 'novelty'. Yet the means are certainly experienced and exquisitely cinematographic ones: "The Special Effect is the Cyborg's true Nature!" as we are told by the 'director's notes'. Good. Cut. Splash. Flow. Go. Out. Touch. Screen!>

Rachel Baker

Business Plan for Art of Work

"...unless you know how to get where you are going, you may end up somewhere else..."

baker simonson&sons

Art of Work: Temporary Recruitment Agency For Artists
Managing Director: Rachel Baker
Address: Institute Of Contemporary Arts
The Mall, London

http://www.irational.org/tm/art_of_work

1. Business Description

Identify goals and objectives. Clarify why you want to be in business.
- I am in business to learn about making money out of mutual exploitation of art and business.
- I believe artists are an underexploited human resource for the modern workplace and that the workplace is an underexploited resource for the modern artist.
- Our attitudes to work are changing. Whilst the workplace offers less stability and security, the worker demands more flexibility and pleasure. Managers are realising the need to cultivate creativity and conviviality to maximise profits since hard labour and long hours are no longer guarantees of results.
- AOW insists that Artists are a valuable commodity in the new work paradigm of open office architecture and new management techniques.
- It is Creative Capital that Managers are now looking to invest in which is something that artists can supply with abundance. Similarly, artists, traditionally on the economic margins, are now looking at wider economic structures and markets to apply their creative potential. They have always been resourceful and skilled in repurposing objects and systems for alternative uses.
- AOW is introducing the concept of Work Resource Mismanagement into the jargon of new Management theory. It's a radical concept that encourages employees to utilise work resources in creative ways i.e databases, reports, memos, franking machines, tape + video recordings, and so on, redirecting them into other realms beyond the workplace.

2. Products and Services

Clearly explain the service.
- AOW is a Recruitment Agency
- AOW is selling artists to the commercial and industrial workplace.
- AOW will place practising artists in temporary positions with companies that subscribe to the new Human Resource Management(HRM) theory of Creative Capital (CC).

The Database
Fully automated and updated daily, both artists and companies can publish their profiles on the AOW database will be available for all parties to search for the appropriate placement.

3. Sales and Marketing

Who and how large is your market?
- The recruitment market is currently experiencing massive expansion. There is a huge demand for agencies who can provide the busy workplace with temporary personnel.
- Management consultancy is also an expanding sector continuously searching for creative techniques to maximise workplace efficiency, congeniality and increase profits for business.
- Artists are continously looking for means of supplementing their income in order to continue their practise.

How will you be competitive?
- Art Of Work has identified a gap in the market. There are no other recruitment agencies that specialise in placing artists in workplaces.

What pricing and sales terms are you planning?
- To use the service, companies will pay a monthly subscription fee of 100 pounds plus an hourly wage to the artist for any work undertaken. The agency will retain 10% of the fee recieved by the artist.

A guide to the fee an artist can command:
Conceptual artist = 100 per hour
Net Artist = 80 per hour
Digital Artist = 70 per hour
Sculptor = 50 per hour
Photographic Artist = 30 per hour

How will you market your products and services?
a) Advertising in trade journals used by modern businesses such as:
Marketing and PR companies
IT companies
Telecommunications companies
b) Advertising in trade journals used by artists
c) A website

4. Operating Requirements

Identify and describe the equipment, facilities and people necessary to generate your products and services.
- Equipment:
Desk
Telephone
Fax
Computer
- People:
Programmer
- Facilities:
Internet Connection and ISP
Database software

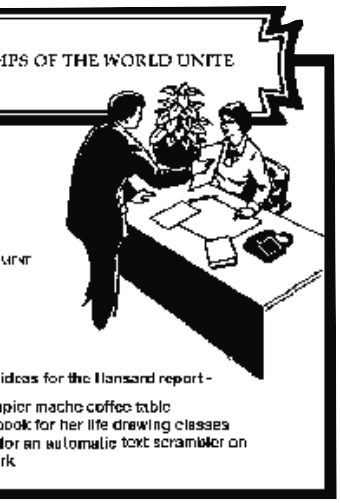
How will your services be produced and made available to the customer?
- A database will be designed holding profiles of both artists and companies.
- The service will be produced by networking with both business and art communities.
- The service will be made available through the website and online database and through contact at the office.

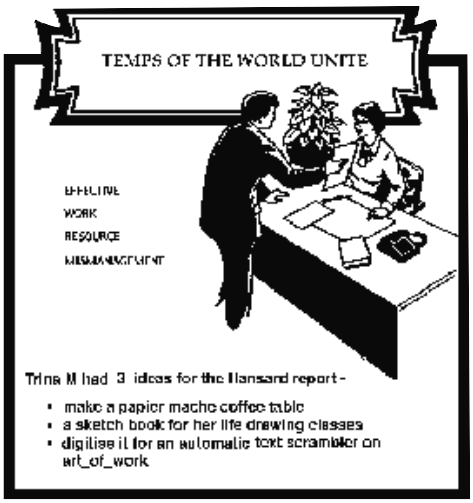
5. Financial Management

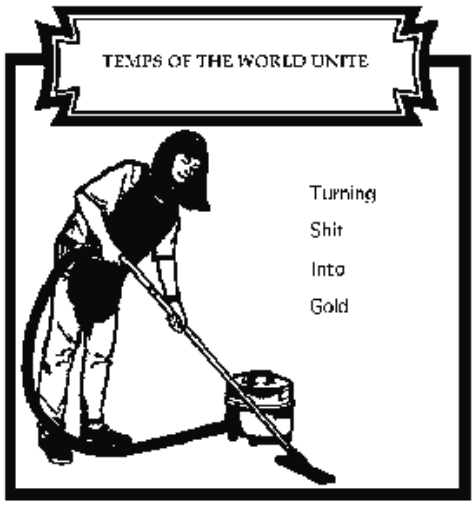
Projected "start-up costs": 2,000 pounds
Expected profit or return on investment (ROI) for the first year: 20, 000 pounds

6. Concluding Narrative

- 'Exploit The Workplace In the Service of Useless Artmaking'
- The workplace benefits from exploiting the lateral and creative skills of the artist at hand.
- The artist benefits by exploiting the workplace as another resource for their art practice and by participating in a shared network of temp workers who are also artists.







Susanne Ackers

Cyperspace is empty — who is afraid of avatars?

Cyberfeminism, Psychosis and the Internet

Cyberspace is empty

In the 10th book of the 'Metamorphoses', Ovid tells the story of Pygmalion. He begins his story with a description of those women who had refused to praise the goddess Venus, and were turned to stone for their insolence. Pygmalion is working as a sculptor, and is constantly improving his skills. The work on the ivory sculpture of a woman, especially, is taking up all his effort and ambition. He has perfected this work so much that he finally falls in love with his creation. He experiences the statue as alive and starts behaving towards it as if it were a living person. He kisses the ivory statue, embraces it, and gives it presents, always wanting to change it into a living woman. One day, he comes home to find that the sculpture has turned into a woman. He names her Eliza and they live happily together, so the story tells.

In 1964, Joseph Weizenbaum wrote a program to help gain more information about language analysis. He called this program 'Eliza', after the Pygmalion story, because it was capable of learning. Since speech always has to have a subject within a certain context, the program was constructed with two tapes, the first providing the speech analyser, the second containing the script. A script is a certain set of rules, comparable to those binding an actor to a certain subject within which he is free to improvise.

The first experiment with Eliza was to reproduce the language of a psychoanalyst with a new patient. According to Weizenbaum, such talk is quite easy to imitate, as the technique lies in the effort to get the patient to talk.

Weizenbaum called this special program 'Doctor'. It was soon quite famous, even outside of the Massachusetts Institute of Technology (MIT) where it was invented. It was used to show the capacities of computers to process information.

Weizenbaum himself, however, became more and more critical about the purpose of the program. He states three points especially:
* a number of psychiatrists at the time believed in the actual substitution of personal treatment through such a program. Weizenbaum stresses that he had conceived the idea in a parodistic sense, to show the borders and restrictions of such a program.
* he describes his astonishment and dismay about the close emotional relationships people around him established with 'Doctor'. His interest in this phenomenon, however, lead him to continue his research.
* originally, Weizenbaum had written the program to show the impossibility of a general solution to the problem of language communication. As language can only be understood in certain contexts--and even within these contexts only by specialists--this program was intended to prove false the assumption that a computer could understand natural language.

Weizenbaum's insight is that the public believes in technology without having acquired the background to justify such a belief. The strong impact of public opinion on the new technologies poses for Weizenbaum questions such as the responsibility of scientists to publish their works or not.

The above mentioned examples show, that the creation of an artificial being, be it Eliza, the statue, or 'Eliza', the program, is a method: the artist/programmer creates a work (of art), that in the given context mutates to a living being, able to learn and develop an own or multiple identity(ies).

Now, why is cyberspace empty? Because cyberspace is only filled with the projections of its users, projections of other identities than those grounded in real life.

Who is afraid of Avatars?

In the original sense, the word 'avatar' is used in the Indian language, to describe a human personalization of one of the many indian gods. But avatars are creations made by human beings.

In the context of cyberspace, the word 'avatar' is used for visual figures/forms that represent their creator in visual online worlds. From creations that needed profound programming language, it is getting more and more user-friendly to build one's own avatar. I would also like to include those identities that are based on the usage of text, like in chat-rooms or with fake names/identities in e-mail correspondence.

In analogy to the program 'Eliza', people with no or not much knowledge in programming are enabled to create their personal representations in cyberspace. And as the users of 'Eliza', many believe in their creations and let them come alive, let them develop an own life. These online representations/ identities might overwhelm the real life identity and lead to recent forms of psychiatric disorders, such as Multiple Personality Disorder or Internet Addiction Disorder.

One might define cyberspace as a mirror or place for projections of real life persons. Their creations, be they net.art, lecture pages, home pages, become alive. They are online, other people respond to them, the author(ess) is in the position to answer incoming questions.

Who is it then, we are meeting in cyberspace, e.g. in chatrooms, in e-mails, in web pages?

At the 'August 1997 meeting' of the American Psychological Association (APA), examination of the facts on the issue of 'Internet Addiction Disorder (IAD)' were discussed. The director of the online service 'mentalhealth.net', Dr. John Grohol, expresses his critique towards the unacademic invention and introduction of the so-called 'Internet Addiction Disorder (IAD)' by Kimberley S. Young. In her paper, 'Internet Addiction: The Emergence of a New Clinical Disorder', she states the existence of IAD, but gives no explanation for her theses. Grohol draws attention to the fact that the media quickly respond to such a statement--he gives an example in his online text. As long as there are no efficient medical researches, in his view, it is not possible to speak of 'Internet Addicition Disorder (IAD)'. At the '1997 APA convention', Young provides a response to this critique online, 'What Makes Online Usage Stimulating: Potential Explanations for Pathological Internet Use'.
Dr. John Grohol:
http://mentalhelp.net/archives/editor22.htm
http://psychcentral.com/
Dr. Kimberley Young:
http://mentalhelp.net/apa/young.htm

Dr. Kimberly S. Young is head of the 'Center for On-Line Addiction', as the 'Resources on the Psychology of Cyberspace to the World's First Consultation Firm and Virtual Clinic for Cyber-Related Issues', founded in 1995. Her print publication 'Caught in the Net: How to Recognize the Signs of Internet Addiction and A Winning Strategy for Recovery' was published by John Wiley & Sons in 1998.
'Center for On-Line Addiction': http://netaddiction.com

Dr. Nicola Döring, a German Psychiatrist, comments on the Kimberley-Grohol-discussion and supplies a list with further information, international and national, in an article from July 1998.
http://paeps.psi.uni-heidelberg.de/doering/sucht.htm

Apart from the international discussion between psychiatrists about the definition of internet addiction, since 1998, not only online ravers, but also people who seek professional help in psychiatry, are offered a broad variety of offers online. But is an online therapy, an e-mail or an online-chat offered by psychotherapists or cybertherapists on the web able to serve as a substitute for a face-to-face meeting? Can social isolation--known to be an important parameter in psychotic disorders--be treated by another hour in front of the screen?
Internet Therapy:
http://www.metanoia.org/imhs/

All in all, the enormous number of online mental health resources as well as discussions, billboards and e-mail services 'Online Dictionary of Mental Health' contribute to the above mentioned information available online. 'Online Dictionary of Mental Health':
http://www.shef.ac.uk/~psysc/psychotherapy/

Based on the experience with more than 1,500 first-episode patients since the initiation of the Aubrey Lewis Recovery Program in 1986 and the subsequent development of the Early Psychosis Prevention and Intervention Centre (EPPIC) in 1992, the 'Early Psychosis Training Pack' is primarily targeted at mental health workers who already work with people with psychotic disorders. The project is based in Melbourne, Australia, and aims at the early intervention in psychotic disorders in order to reduce long-term morbidity and improve recovery. The site is run by a major provider of neuroleptica medicine. 'Early Psychosis Training Pack': http://www.futur.com/edu-info/training.htm

Improving recognition is not only meant to educate primary care providers, but also to educate the community and reduce the stigma associated with psychotic disorders. Additionally to a detailed description of the 'why-and-hows', the web page also contains links to a so-called 'Trainer's guide'. The practical exercises are designed to reinforce the information presented in each module.

The use of the internet by institutions, universities and research projects, has an informative character. Those webpages that are provided by private people, mostly relatives or former patients of psychosis become more and more important. Detailed desriptions give other patients the awareness that they are not alone with their experiences. Through such uncensored descriptions of psychotic experiences, a discourse is evoked that was not possible before.

Ian Chovil's Homepage is based in Guelph, Ontario, Canada. His page was created in February 1997, and gives a description about his own sufferings from schizophrenia. Next to that, an interesting chapter with the alternatives to the medical treatment of schizophrenia--which can be found in religious and spiritual experiences--is part of his page.
Ian Chovil's Homepage':
http://www.mgl.ca/~chovil/

Inspired by the page of Ian Chovil, an anonymous German author decided to create a web page (German and English) showing his experiences with schizophrenia.
http://ourworld.compuserve.com/homepages/Pahaschi/autor.htm

Marianne Kestler has been suffering from an endogene depression. On her web page, she presents her personal hypotheses on the internet as a new drug. She is also the editor of an activist web page on the subject of psychosis, a German page called 'Kuckucksnest'.
Marianne Kestler:
http://members.aol.com/idiot07/droge/cyber.htm
Kuckucksnest: http://kuckuck.solution.de/

Through recent developments, the need for reliable information is evident. For Germany, a professional web site which offers national and local information and links, can be found under: http://psychiatrie.de/

But not only scientists and former patients are active. Also people who came in contact with psychosis through sufferings e.g. in their family. Such as the 'Not-for-Profit Information, Support and Education Center' which has been created in September 1996 by Brain Chiko, in memory of his brother John who suffered from schizophrenia, and who committed suicide in November 1995. Among other features, this site offers a regular newsletter on recent developments relating to schizophrenia, which you can have delivered free by e-mail, and a search engine that brings together information from 200 schizophrenia websites.
Brain Chiko: http://www.schizophrenia.com/

While the international scientific world is still struggling to find definitions, clear descriptions and treatments, the internet community is already using the possibilities of the internet such as publication and communication.

Cyberfeminism, Psychosis and Internet

In the context of cyberfeminism, this active and pragmatic use of computer and internet technology is transforming the encouragement to work with this technology, such as e.g. Anne Balsamo underlines in an interview in April 1998. She describes the importance of taking risks and gaining experience in order to handle the latest technology and the internet. Anne Balsamo: http://www.obn.de/

In this sense, education should be highly concerned with the potentially harmful aspects of computer technology, such as physical and psychological disorders. While physical illnesses were the subject of Josephine Bosma's workshop given at the first Cyberfeministic International in September 1997 on the subject of RSI (repetitive strain injury), my article is concerned with the psychological realm.

Psychotic disorders can also be defined as states of awareness which create realities parallel to real life experiences. They can be triggered by drugs, meditation and states of ecstasy such as those produced by lack of sleep or irregular nourishment. Such experiences are not new. In the 16th century, the Spanish nun Theresa of Avila, forbade the women in her cloisters to fast for more than three days in a row. She also had to make sure that they got enough sleep.

Looking at the culture history of psychoses and schizophrenia, at least since the end of the 18th century, a tendency can be traced: from religious systems towards technologically complex systems. As a common feature it can be stated, that in all times, the fears and objects which are caught up in a psychological muddle are related to common trends and beliefs. So, around 1800, the devil and Goya's 'The dream/ sleep of reason produces monsters' became the likely subjects of delusion. During the time of the Cold War, the East-West confrontation was a common subject, not only in Berlin. Since the middle of the 20th century, experiences of persecution mania, telepathy and megalomania are projected onto communication and internet technology (satellites and wired communication), nano-technology (with the purpose of observation) and gene-manipulated food.

Today, as described, the pragmatic way is to look behind the screen--to learn about machine language, programming codes and hardware mechanisms, thus avoiding the seduction of interface simulations and questioning the myth of technology.

Both, Pygmalion and Weizenbaum, used their skills--sculpturing and programming--with a purpose: Pygmalion created the sculpture of a woman that turned into a living being, Weizenbaum used this story in an ironical sense. He wanted to create a program that would show that it was not able to develop an own identity but remain a piece of software. His astonishment and critique of the numerous users of 'Eliza' who turned into believers, without getting the warning in his work, shall serve in this context as a reminder for excessive users of information technology.

The complexity of the subject of psychosis, however, requires sensitive handling, and it can therefore not be addressed in detail in this context. For more information, please refer to the following literature. Sherry Turkle's book, 'Life on the Screen: Identity in the Age of the Internet', New York: Simon and Schuster, 1995, and the German version 'Leben im Netz — Identität in Zeiten des Internet', Hamburg: Rowohlt, 1998, describes numerous ways of living with computers, and especially the internet. Turkle claims that „the time on screen can be time to develop a greater sense of self and identity".
Sherry Turkle: http://franklin.icsd.k12.ny.us/it/turkle.htm
Further Reference:
Ludwig Janssen (Hg.), Auf der virtuellen Couch - Selbsthilfe, Beratung und Therapie im Internet.
Bonn: Psychiatrie-Verlag, 1998.
http://www.psychiatrie.de

Alla Mitrofanova (RU)
<twinsmi@yahoo.com>
lives in St. Petersburg. She graduated from St.Petersburg university as art historian and philosopher. Alla is a writer, curator and editor of the internet magazine "Virtual Anatomy": <http://www.dux.ru/vir>
1990-94 main topics were nomadic subjectivity and nomadic semiotics, theory of m. 1995-98 topics: body theory, post-information theory.

Barbara Thoens (D)
<nomade@cashh.ccc.de>
political scientist, video activist ("Hacker packen aus", a film by Rena Tangens and Barbara Thoens), ex-bassplayer, for more than 10 years active member of the Chaos Computer Club, currently working as a programmer for the weekly newspaper DIE ZEIT in the online department.
http://www.zeit.de
http://www.ccc.de

Caroline Bassett (GB)
<sppa1@susx.ac.uk>
Caroline Bassett is a lecturer in Media at Sussex University where she is researching narrative and hypermedia. She is also a technology journalist and writer.

Claudia Reiche (D)
<113052.1266@compuserve.com>
M.A., Dipl. VK, Literary and media scientist, author, performer, educational work at the University of Hamburg and at the Academy for Fine Arts Braunschweig, on the staff of the Women's Culture House TheaLit Bremen, (there: concept and organisation of "Künstliches Leben:// Mediengeschichten", laboratory on media art and theory: http://www.thealit.dsn.de/LIFE/labor.htm.
Actually member in the VW-research project at the University of Hamburg "Bodyimages. Transformations of the Human Being in media and Medicine" directed by Prof. Marianne Schuller, focussing on "Living pictures. Medical visualization, artificial life and electronic entertainment", especially the Visible Human Project. Cyberfeminist member of the Old Boys Network. Curating with Helene von Oldenburg "The Mars Gallery", the first international and interplanetarian exhibition space for fine arts on Mars.

Cornelia Sollfrank (D)
<cornelia@snafu.de>
is an artist, lives in Hamburg, is lecturing at the Hochschule für bildende Künste, Hamburg. Central to her conceptual and performative works are the changing notions of art, the advent of a new image of the artist in the information age, gender-specific handling of technology, as well as new forms of disseminating art. She was a member of the artist group "-Innen+" and initiated the cyberfemininist organisation "Old Boys Network". FEMALE EXTENSION http://www.obn.org/femext
http://www.obn.org/sollfrank

Corrine Petrus (NL)
<corrine@tech-women.nl>
lives and works in Rotterdam. She is a computer-programmer with a great interest in communication and in people. In the beginning of 1996 she founded the Webgrrls Chapter in Holland and Belgium. Left Webgrrls in 1997. Now Corrine has her own Computer Consultancy Business called Webdiva http://www.webdiva.nl and is chairman a the new organisation, Tech Women http://www.tech-women.nl

Faith Wilding (USA)
<74447.2452@compuserve.com>, <fwild@andrew.cmu.edu>
is a multidisciplinary artist, writer, and cultural activist. She was one of the founders of the feminist art movement and has exhibited and published her work internationally. Currently she's a recombinant cyberfeminist collaborating with feminist/activist groups such as subRosa and CAE to investigate new possibilities for an embodied feminist art and politics.
http://www-art.cfa.cmu.edu/www-wilding/
http://www.artswire.org/subrosa

Helene von Oldenburg
<113121.1464@compuserve.com>
lives in Rastede and Hamburg, Germany. She holds a doctor's degree of Agricultural Science and a Diploma in Visual Arts. She is member of obn and director of the Institut for Experimental Archnology. Selection of works: "Der Imaginale Ort IV", Kunsthalle Hamburg (1991), "Nine Sculptures New York 1993", The Thing <http//:www.thing.net>, "Information Molekules" a research project in futurology (1994), "Traces of Future. New Ways of Experimental Arachnology", Fernerkundung, TheaLit, Übersee Museum, Bremen (1996), "Spider-Feminism", hybrid workspace, Kassel (1997), "Arachnoide Produktion/ Schnittstelle Zukunft", Schnittstelle/ Produktion, Shedhalle, Zürich (1998), "Arachnoide Öffentlichkeit: eine Experiment", Produktion/ Öffentlichkeit, Kunsthalle Exnergasse, Wien (1999)
http://www.mars-patent.org

Ieva Auzina (LV) <ieva@re-lab.net>
art historian, lives and works in Riga, Latvia. Member of the e-lab crew.

Iliyana Nedkova
<vr@fact.co.uk>
is an independent curator, lecturer, writer and facilitator of a number of media events across Europe and the US. Since 1998 Iliyana is also a part-time MPhil/PhD research fellow at the Liverpool Art School, Liverpool John Moores University. Currently based at FACT, Liverpool/UK [the Foundation for Art and Creative Technology] as translocal projects manager.

Irina Aristarkhova (RU)
<aristarkhova@glasnet.ru>
received her MA from the University of Warwick (UK), with thesis entitled „Women and Government in Bolshevik Russia" and defended her PhD thesis "Female Identity in Contemporary French Psychoanalysis" in the Russian Academy of Sciences. She teaches the post-graduate course "Subjectivity and Difference" in the Institute of Sociology (Moscow), which is to be published as a separate text-book this year. She also teaches courses in cyber-theory, feminist aesthetics, body in art and culture and French feminism in Lasalle SIA College of the Arts (Singapore). Currently she is preparing the first journal in Russian feminist theory. She lives in Moscow.

Mare Tralla (GB, Estonia)
<mare@mail.easynet.co.uk>
*/Disgusting Girl an Estonian artist currently living in London. Her practice includes works in photography, video, installation, performance and electronic art.
www.artun.ee/~trimadu/
www.oef.org.ee/scca/private/views.html
www.yourserver.co.uk/vr/
www.yourserver.co.uk/vr/private/views.html

Maren Hartmann (GB)
<maren@hrc.westminster.ac.uk>
is currently a Teaching Assistant and PhD student at the University of Westminster in London (one part based in Media Studies, another in the Hypermedia Research Centre). She has studied in Berlin and Brighton (Sussex), where she also worked on a European project (EMTEL). Her current work is based around the metaphorical aspects of cyberspace as an emerging culture (especially the users and amongst these the cyberflaneur and cyberflaneuse).

Maria Fernandez (USA)
<110432.361@compuserve.com>
holds a doctorate in Colonial/Post-Colonial art from Columbia University. Her work bridges the gap between Western and non-Western fields and challenges disciplinary boundaries. Currently she is researching and writing about the role of electronic media technologies in the neo-colonialism of the new world order. She is a member of the cyberfeminist group subRosa.

Marieke van Santen (NL)
<marieke@tech-women.nl>

Marina Grzinic (SI)
<Margrz@ns.zrc-sazu.si>
lives and works in Ljubljana, Slovenia. Received her Ph.D. in Philosophy at the Faculty of Philosophy, Ljubljana; works as a researcher the ZRC SAZU (Scientific and Research Center of the Slovenian Academy for Science and Art) Ljubljana; freelance critic and curator. In 1997, postdoctoral reasearch grant from the Japanese Society for the Promotion of Science; she lived for one year in Tokyo. Collaborative video works since 1982 with Aina Smid.
AXIS OF LIFE (Grzinic/ Smid)
http://www.lois.kud-fp.si/quantum.east
NET.ART.ARCHIVE (Grzinic/ Smid)
http://www.zrc-sazu.si/net.art.archive

Nat Muller (B)
<Nathalie.Muller@skynet.be>
is contributing editor of _Fringecore_ magazine (http://www.fringecore.com), a sex educator, and a bookshopkeeper (http://www.belgonet.be/verschil). She is currently living in Antwerp, where she is planning her escape into the next millennium.
http://users.skynet.be/nattyweb

Pam Skelton (GB)
<PamSkelton@compuserve.com>
is an artist and senior lecturer at Central Saint Martins College of Art & Design. Her work in video and installation have principally involved investigations which explore existing traces of history as evidence of ruptures and dislocations which occur between site, memory and event.

Rachel Baker (GB)
<rachel@irational.org>
Currently disguised as a lecturer at the London School Of Economics where she exposes I.T. students to alternative uses of networks. The exploitation of the workplace is an ongoing project. <http://www.irational.org/tm/art_of_work/> As part of Cultural Terrorist Agency <http://www.irational.org/cta> she is responsible for strategies in raising funds for projects that promote cultural interference. The most recent CTA project to be unleashed was the Superweed 1.0, a beta weapon for genetic terrorists. Rachel Baker is also a keen advocate of audio networks and has just published a net.radio guide http://www.irational.org/radio/radio_guide/

Rena Tangens (D)
<rena@bionic.zerberus.de>
artist, lives and works in Bielefeld, Germany. Worked with experimental film, video and free radio. Founded the gallery and art project "Art d'Ameublement" together with padeluun. She brought the first modem to documenta (d8!) and women into the Chaos Computer Club. She was artist in residence in Canada. Rena Tangens is cofounder of FoeBuD e.V. and the BIONIC bbs and curator of the monthly culture & technology event PUBLIC DOMAIN since 1987. Published with FoeBuD the first manual on PGP encryption in German language. She does research on androcentrism and life in the networks, lectures and consulting for companies and institutions as well as the Enquete-Kommission of the German Bundestag.
Rena Tangens www.tangens.de ,
PUBLIC DOMAIN -- topics, documentation and info on coming events:
www.foebud.org ZaMir network documentation:
www.foebud.org/texte/presse/artikel
Information on /CL network:
www.cl-netz.de
Information on ZERBERUS and CHARON software: www.zerberus.com
Pretty Good Privacy:
www.foebud.org/texte/publish/pgp.html
Text on androcentrism in the networks:
www.foebud.org/art/TEXTE/andororo.html
Wiwiwi-nangnangnang:
www.foebud.org/art/wiwiwi.html

Rasa Smite (LV) <rasa@parks.lv>
famous net.audio activist from Riga, Latvia.
http://ozone.re-lab.net (net.radio ozone)
http://xchange.re-lab.net (net.audio network)

Stephanie Wehner (NL)
< _@r4k.net>
playing with computers since the age of 16. experienced in irc. mostly worked with freebsd, linux, sunos/solaris and bsdi. sys admin, programmer. currently working for xs4all.nl
http://www.xs4all.nl
http://www.r4k.net

Susanne Ackers (D)
< ackers@is.in-berlin.de>
lives in Berlin. Holding an M.A. degree in art history and philosophy, she is working in the context of contemporary art exhibitions and new media since 1989, focussing in on video art, electronic art, net.art. After two years of teaching http://www.ikm.his.se/~susanne in Skoevde, Sweden, she is currently working on her Ph.D. about the deconstruction of perspective as a symbolic form in the works of Gary Hill and Charlotte Davies. She is a founding member of the Old Boys Network.

Ursula Biemann (CH)
<biemann@access.ch>
artist and former curator at Shedhalle Zurich, focuses on gender and post-colonial issues in collective projects and videos located in the urban sphere (Istanbul/ Mexico).
http://www.iniva.org/celluloid/biemann.html
http://www.lumpen.com --> [Lumpen Vision]

Verena Kuni (D)
<kuni@mail.uni-mainz.de>
art historian and media theorist, since 1996 assistant at the dept. for art theory at Johannes Gutenberg-university Mainz, Fb. 24/fine arts. Besides working as free lance curator, author and critic for art magazines (i. a. neue bildende kunst/Berlin, Kunst-Bulletin/ Zurich, Frieze/London, Camera Austria/Vienna). Research, teaching, lectures and writings in the field of contemporary arts, especially on the (public) image of the artist, old and new mythologies in art history, the history and aesthetics of electronic media and gender related issues. Member of old boys network.
http://www.kunst.uni-mainz.de/~kuni/welcome.htm

Yvonne Volkart (CH)
<yvolkart@access.ch>
is curator, art critic, writer and a lecturer of German and New Media at the University of Design and Art in Zürich. She lectured at several european art schools, planned and organized several conferences such as „Art History New Feminist Criticism (with Annette Schindler, Kunsthaus Glarus 1995) and „Brave New Work" (with Lilian Raeber, Viper, Luzern 1998). For the Swiss Institute New York, she is currently preparing a show, conference and a book called >Stubborn Practices in the Age of Global Information- and Biotechnologies<.